Becoming a High Expectation Teacher

We constantly hear cries from politicians for teachers to have high expectations, but what this means in practical terms is never spelled out. Simply deciding that, as a teacher, you will expect all your students to achieve more than other classes you have taught in the same school is not going to translate automatically into enhanced achievement for students.

*Becoming a High Expectation Teacher* is a book that every education researcher, trainee or practising teacher should read. It details the beliefs and practices of high expectation teachers – teachers who have high expectations for all their students – and provides practical examples for teachers of how to change classrooms into ones in which all students are expected to learn at much higher levels than teachers may previously have thought possible. It shows how student achievement can be raised, providing both research evidence and practical examples.

This book is based on the first ever intervention study in the teacher expectation area, designed to change teachers’ expectations through introducing them to the beliefs and practices of high expectation teachers. A holistic view of the classroom is emphasized, whereby both the instructional and psychosocial aspects of the classroom are to be considered, if teachers are to increase student achievement. There is a focus on high expectation teachers, and a close examination of what it is that these teachers do in their classrooms that means that their students make very large learning gains each year.

*Becoming a High Expectation Teacher* explores three key areas in which what high expectation teachers do differs substantially from what other teachers do: the way they group students for learning, the way they create a caring classroom community and the way in which they use goal setting to motivate students, to promote student autonomy and to promote mastery learning.

Areas covered include:

- formation of teacher expectations
- teacher beliefs and expectations
- ability grouping and goal setting
- enhancing class climate
- sustaining high expectations for students.

*Becoming a High Expectation Teacher* is an essential read for any researcher, student, trainee or practising teacher who cares passionately about the teacher–student relationship and about raising expectations and student achievement.
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Becoming a High Expectation Teacher
Raising the bar

Christine Rubie-Davies
To Jeff, without whose undying love and support this book would never have come to fruition.
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# Contents

*List of figures*  ix  
*Acknowledgements*  xi  
*Introduction*  xiii

## PART I  A history of teacher expectancy research  1

1 Retracing the steps in teacher expectation research  3  
2 Formation of teacher expectations  18  
3 Teacher differential behaviour and student outcomes  34  
4 Teacher difference and expectations  48

## PART II  High and low expectation teachers  65

5 Introducing high and low expectation teachers  67  
6 The beliefs and practices of high and low expectation teachers  81  
7 A teacher expectation intervention  97

## PART III  A teacher expectation intervention: theoretical and practical perspectives  119

8 High expectation teachers and flexible grouping: a theoretical discussion  121
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>High expectation teachers and flexible grouping: practical applications</td>
<td>133</td>
</tr>
<tr>
<td>10</td>
<td>High expectation teachers and class climate: a theoretical discussion</td>
<td>149</td>
</tr>
<tr>
<td>11</td>
<td>High expectation teachers and class climate: practical applications</td>
<td>165</td>
</tr>
<tr>
<td>12</td>
<td>High expectation teachers and goal setting: a theoretical discussion</td>
<td>183</td>
</tr>
<tr>
<td>13</td>
<td>High expectation teachers and goal setting: practical applications</td>
<td>201</td>
</tr>
<tr>
<td>14</td>
<td>High expectations for all students: an achievable goal</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td><strong>Appendix</strong></td>
<td>231</td>
</tr>
<tr>
<td></td>
<td><strong>References</strong></td>
<td>233</td>
</tr>
<tr>
<td></td>
<td><strong>Index</strong></td>
<td>251</td>
</tr>
</tbody>
</table>
Figures

1.1 A contextual model of teacher expectations 14
5.1 Effect size gain in achievement in reading for students with high and low expectation teachers 73
5.2 Self-perceptions of students with high and low expectation teachers in reading and mathematics over one year 75
7.1 Promoting relationships in the classroom 105
7.2 Ensuring students understand what they are learning and how to succeed 106
7.3 Unlocking the joy of reading: brief book reviews from all students 107
7.4 Newspaper created by a group of mixed achievers 108
7.5 Schematic overview of Bayesian latent growth curve model testing the effect of the intervention on test performance 112
9.1 Clock buddies as a means of grouping students 135
9.2 Setting up a reading corner 138
9.3 Tic-tac-toe reading activities chart: The Lion and the Mouse 141
9.4 Creating a knowledge web 143
9.5 Whole-class display of an author and one of his works 145
9.6 Fun with words: whole-class display of Shakespeare’s life and language 145
9.7 Hanging display of the Roman gods from whom planet names were derived 146
9.8 Display of the planets of our solar system 146
9.9 Example of a chart of daily reading activities 147
11.1 Illustration of the student connections represented in a sociogram 168
11.2 Promoting the class climate: class charter and treaty developed and signed by the students 177
11.3 Promoting the class climate: class standards developed by the students displayed at the top; chart for each child about themselves, including photos, drawings and statements; and each child’s ambitions included on their paddle 178
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1</td>
<td>Conditions, processes and outcomes of goal setting</td>
<td>189</td>
</tr>
<tr>
<td>13.1</td>
<td>An example of an e-asTTle report</td>
<td>203</td>
</tr>
<tr>
<td>13.2</td>
<td>Examples of SMART goals that could be used with primary school students</td>
<td>205</td>
</tr>
</tbody>
</table>
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Christine Rubie-Davies
There are frequent calls from policy-makers, reiterated by school management personnel, for teachers to have high expectations. However, I have never yet heard or seen one of these entreaties operationalized. There appears to be a clear understanding that high expectations are important for student achievement, but what does having high expectations look like? Does it mean that teachers indulge in lots of self-talk – ‘I must have high expectations, I must have high expectations, I must have high expectations’? Does it mean that teachers should plan learning experiences well in advance of what they believe their students can achieve – and perhaps watch them fail? Although the policy-makers are quick to criticize teachers and proclaim that teaching needs to be better, they do not appear so adept at providing guidance that would mean all teachers did have high expectations. It is my primary aim in this book to endeavour to provide just that support. Within various chapters, I delve into and describe the practices of high expectation teachers – those who have high expectations for all their students and who have enormous, positive effects on their students’ achievement.

My own interest in teacher expectations began several years ago, when I was teaching in a low socioeconomic primary school in New Zealand. I was in a school that had about one-third Māori students, and yet, at that time, there was no one who could teach te reo (the language) and no Māori culture group – generally, in a school like this, most would have a kapa haka (culture) group. I had been at the school for about three years when I found out about an international children’s festival that is held in Turkey each year, to which every nation is invited. The primary aim of the festival is to promote world peace by bringing students from all over the world together, so that they learn about each other’s culture. I proposed the idea to my principal, and, as if it was meant to be, that same week, a Māori guy walked in off the street and offered to teach the students te reo. I responded by saying, ‘And how would you like to go to Turkey?’

We duly formed a Māori culture group and, once the group was settled, we invited the parents to a meeting to let them know what we were aiming to do. Then, the hard, but extremely rewarding, work began of training the students to an international standard. Over the approximately eighteen months that we
were together, I watched those students blossom in a way that I would never have thought possible. I saw their tentative beginnings, shyly observing their feet, shoulders slouched, while they gave their first performance, and watched their confidence grow over the next few months, as, gradually, their backs straightened and they looked their audience in the eye. We performed in many schools and all over our city. That was how we raised the money to go: it costs a lot to take twenty-four students to Turkey from New Zealand! They were in the newspaper and on television. In their eyes, they were superstars — and they were!

We had very high expectations for that group. We gave them lofty goals, and they met them every time. We made them work harder than they probably ever had. They gave up their weekends to practise. They were expected to be model citizens of the school, they were expected to be successful, they were expected to complete all their schoolwork to a high standard and they were expected to commit to the intensive training that being part of the group meant. At the end of the school year, four months before we headed off to Turkey, it was no coincidence that students from the Māori culture group won, not just every academic prize, but all of the sporting prizes as well.

So, what are they doing now? A couple of years ago, I caught up with the twenty members of the group that I could locate (see Rubie-Davies 2011). One had just won a scholarship to a university in France to do her PhD, another had completed a master's degree, seven had either gained an undergraduate degree or were finishing one, seven had completed some other form of tertiary training, and just four had not gone on to post-school qualifications. Only one among the group had left school after Year 11, and most (fifteen) had completed Year 13, which provides entry to university. All had great jobs. There was a music therapist, a university tutor, a tax lawyer, a software consultant, a mechanic, a bricklayer, a personal trainer, a recreational project leader for a local city council, a navy officer and a manager of a large clothing store (the one who left at Year 11). This is not the life story of many students who attend a primary school in a low socioeconomic area of New Zealand, but it is our story. It is a story of the power of high expectations.

Several years of research into teacher expectations and teacher expectation effects has provided evidence that expectations influence student performance and achievement (Brophy 1982; Cooper and Good 1983; Good 1987; Jussim et al. 1996; Weinstein 2002; Rubie-Davies et al. 2006; Babad 2009). Teacher expectations are revealed through the learning opportunities teachers provide, through the psychosocial environment in the classroom and through the interactions that teachers have with students. One filter of teacher expectation effects will be the teachers’ knowledge and beliefs about particular students. This is not to suggest that every student’s classroom experiences should be identical, however. They should be adaptive to the needs of the students. There should be some provision for the differential learning needs of low- and high-achieving students — provided this differentiation does not lead to limiting the opportunities of some learners. One of the difficulties for researchers in the expectancy area,
however, is in unravelling the interactional components. Once students are treated differently, it becomes problematical to decide whether differential results are a factor of the instruction or of the original student characteristics. It raises the question of whether low-achieving students respond less well because the instruction is less engaging, or whether the instruction is less engaging because the students are less responsive (Gamoran 1992). This is an important question, which this book attempts to answer.

Teacher expectations may be defined as the notions that all teachers hold about the current and future academic performance and classroom behaviour of their students, based on their interpretation of available information. Teachers generally form expectations for their class as a unit, as well as for each individual within the group, although the research field has mostly concentrated on investigating teacher expectations for individual students. Expectations may be based on information about prior achievement and may be discernible through aspects such as how the teacher groups the students, what learning experiences are provided for the students, how likely the teacher believes it is that the students will achieve the learning outcomes planned, whether or not the teacher feels she/he will be able to effectively teach these students, and what type of behaviour management plan is to be instituted.

The ways that teachers interact with groups and individuals can be affected by their expectations, and these interactions in turn may affect the responses of students (Good and Brophy 2008). Teacher expectations may be conveyed to students through differential teacher behaviour, especially with regard to low- and high-achieving students (Darley and Fazio 1980), and these may be expressed in the form of variations in learning opportunities, dyadic interaction patterns and differences in the psychosocial environment provided for students of differing achievement levels (Kuklinski and Weinstein 2001). Hence, teacher expectations become closely aligned with both the instructional and psychosocial environment of the classroom, and this intensifies the likelihood that the student’s behaviour will become more aligned with the expectation (Brophy 1982). Of course, all teachers do hold expectations for their students’ future classroom performance, and indeed they should, because expectations underlie teachers’ planning for student learning, the goals they feel students are capable of achieving, and the assessment tasks used to monitor progress, in line with the teachers’ expectations. It is, therefore, critical that teachers do hold high expectations for student learning. Learning is framed differently when expectations are high rather than when they are low.

The conception that teachers can hold high expectations for all their students has not been often investigated, and this is despite evidence from earlier studies that expectations at the whole-class level were likely to have more effects on student learning than expectations for individuals (e.g. Brophy and Good 1974; Harris and Rosenthal 1985). The focus of this book is on high expectation teachers – those who have high expectations for all their students and whose students make large academic gains. Thus, most of the book concentrates on
unravelling and understanding the practices and beliefs of high expectation teachers and demonstrates how high expectation teachers differ from their counterparts. For example, there is a re-envisioning of ability grouping and how it can be used without explicitly differentiating between the learning experiences for high- and low-achieving students. Such low differentiation is a practice that is common among high expectation teachers. The book is designed to teach the practices of high expectation teachers, while at the same time providing a theoretical framework that perhaps explains the reasoning of high expectation teachers for their beliefs and practices.

I hope that teachers, principals, postgraduate students and researchers will find this book to be of value. I have endeavoured to provide practical but research-based ideas for teachers to implement in classes, while at the same time providing all readers with a theoretical framework and the evidence base for many of the ideas that are suggested. I recognize that not all the ideas contained in this book will be for everyone. I recognize the diversity that is encompassed in the word ‘teaching’. Context is important; I know that, but I would not want that to be an excuse for not having high expectations of students.

I also recognize the critical role of principals in the success of implementing the strategies of high expectation teachers. This became very obvious to me during the intervention project that forms the major component of this book. Some principals came along to the teacher workshops with their teachers; these, and others, were completely engaged in the project throughout. They endorsed the new practices teachers were learning and enabled full integration of them into their schools. They were as enthusiastic as their teachers. In contrast, one principal in particular paid lip service to the project, allowing teachers in that school to take part, but then actively constraining the teacher changes that were part of the project. Needless to say, the intervention was much more successful in the former schools than in the latter. Sometimes, new learning that contradicts established beliefs and practices is a bridge too far. For teachers and principals, some are more willing to experiment than others.

I am also the first to admit that the practices of high expectation teachers will already be evident in many classrooms. High expectation teachers should be in every school. Nevertheless, I hope that everyone who reads this book takes something of value away with them – a new practice, a new idea, a new theoretical understanding. Every student in every classroom deserves to have the best possible educational experience. Their future depends on it.

At times, I report the statistical evidence for some of my findings; I have tried to do this in a manner that is accessible to all readers. I often report effect sizes. An effect size provides a means of determining how important a change or a difference is. Hattie (2009) describes an effect size of $d = 0.4$ (a Cohen’s $d$, which is the name of the statistic I use throughout this book) as having a noticeable effect on student achievement; that is, teachers or independent observers would be able to visibly see a difference in students and their learning over time, as a result of the practice or intervention the teacher has introduced into a classroom.
I have used this guideline throughout the book, with effect sizes above 0.4 indicating a meaningful effect on student learning, and those less than 0.4 not having effects any greater than what we would expect a regular teacher in a regular classroom to have on the achievement gains of students every year. Indeed, some of these lesser effects would occur no matter who had been placed in front of the class!

In places, I use effect sizes to show how important a particular strategy or intervention is. Sometimes, the effect size has been calculated from a meta-analysis – a synthesis of a large number of studies of the same intervention or practice. The effect size from a meta-analysis demonstrates, across many studies and, therefore, normally very large samples of students or teachers, whether what has been measured is of value for student learning. For example, a meta-analysis across 425 studies and 12,124 students has shown instruction in phonics has a $d = 0.60$ effect on reading achievement (a meaningful effect), whereas when 64 studies and 630 students were combined for analysis, whole-language programmes were found to have only a $d = 0.06$ effect on reading achievement (Hattie 2009). Hence, phonics instruction is a more effective approach to the teaching of reading than a whole-language approach.

This book is divided into three parts. The first part (Chapters 1–4) is devoted to providing a comprehensive background to the teacher expectation area. It begins with an introduction to the field with the first-ever study, *Pygmalion*, conducted by Rosenthal and Jacobson (1968). The first chapter describes this study, the controversy that resulted, and directions that researchers took following that seminal work. *Pygmalion* provided a springboard for researchers to begin exploring different aspects of teacher expectations. They sought the answers to questions such as: Do teachers interact differently with students for whom they have high or low expectations? What student characteristics influence teacher expectations? Do students know that their teacher has high or low expectations for them? And, are there some teachers whose expectations result in greater effects on student outcomes than seem to occur in other classrooms? Chapters 2–4 present the findings of researchers in response to these questions. The chapters show how the research in the field developed as researchers explored these important perspectives; they also provide the background for my own thinking, as I began identifying and researching high and low expectation teachers. The examination of teacher difference as contributing to expectation effects marked a major shift in the field, and the work of Babad and of Weinstein, who led this thinking, is highlighted in Chapter 4. Further, providing a broader contextual view (an ecological perspective, as in the work by Weinstein, particularly since 2000) signalled conceptions of both the instructional and psychosocial aspects of the classroom as contributing to students’ outcomes – a perspective that is foundational to my own work.

The second part (Chapters 5–7) focuses on my findings in relation to the identification of high and low expectation teachers. In particular, Chapter 5
discusses how I identified high and low expectation teachers, and the academic and psychosocial outcomes for students who were located in the classes of either high or low expectation teachers. I also present some recent work that shows that high and low expectation teachers have been identified within the tertiary environment, with surprisingly similar outcomes for the tertiary students as for those in primary schools. Chapter 6 introduces and describes the differences between high and low expectation teachers in terms of their instructional practices and their pedagogical beliefs, as I propose that it is their beliefs and practices that provide the mechanisms for teacher expectation effects. Differences between high and low expectation teachers formed the basis for an intervention project described in detail in Chapter 7. Randomly assigned teachers were trained in the beliefs and practices of high expectation teachers, to determine whether they could be taught the beliefs and practices of high expectation teachers and whether, if they did adopt these practices, their students’ academic and psychosocial outcomes would differ from those of students in the control group. Analyses from the first year of the project are presented.

The intervention project was aimed at developing, enhancing and changing teacher practice in three major areas: grouping and learning activities; class climate; and motivation, engagement, student autonomy, evaluation and teacher feedback, which were subsumed under the heading of goal setting. Part 3 (Chapters 8–14) is structured such that, for each of these three areas, the chapters alternate between a theoretical and a practical perspective on each area. That is, first there is a chapter providing further information about the beliefs and practices of high expectation teachers, along with a theoretical discussion that provides research evidence that demonstrates support for the ways in which high expectation teachers teach. Then, the chapter that follows provides practical ideas for teachers to implement in their classes: ideas that mirror the beliefs and practices of high expectation teachers. Hence, Chapters 8, 10 and 12 are theoretical in their perspective, whereas Chapters 9, 11 and 13 are practical. The final chapter, Chapter 14, acknowledges the critical role of principals in any successful classroom change process. A high expectation school is likely to have even greater benefits for all students than a high expectation classroom.

The average child
I don’t cause teachers trouble;
My grades have been okay.
I listen in my classes.
I’m in school every day.

My teachers think I’m average;
My parents think so too.
I wish I didn’t know that though;
There’s lots I’d like to do.
I’d like to build a rocket;
I read a book on how.
Or start a stamp collection . . .
But no use trying now.

‘Cause, since I found I’m average,
I’m smart enough you see
To know there’s nothing special
I should expect of me.

I’m part of that majority,
That hump part of the bell,
Who spends his life unnoticed
In an average kind of hell.

Mike Buscemi

(http://russellboyle.wordpress.com/2012/10/27/the-average-child-by-mike-buscemi/)
I
A history of teacher expectancy research
A good place to start with any book is at the beginning. In this chapter, I trace the history of the teacher expectation field. I present the findings from the first study in the teacher expectation field and examine how that ground-breaking work influenced the future directions that research took. Also, I present a teacher expectation model that encapsulates the steps in the expectation process, from the teacher forming her/his expectations, through to the student interpreting these and acting accordingly.

In 1948, Merton, a sociologist, proposed the self-fulfilling prophecy. The underlying premise was that, when we believe something to be true, we act in particular ways that can cause our beliefs to become true. He provided the example of a bank, the Last National Bank, which was doing well financially – until Black Wednesday. On that day, when the manager of the bank arrived at work, he noticed that business was unusually brisk and mused that he hoped folks at the local steel plant and mattress factory had not been laid off. He later found out that someone had begun a rumour that the bank was in financial trouble and about to collapse. The rumour spread. Anxious depositors rushed to the bank to withdraw all their savings. Because the bank could not sustain the large volume of withdrawals, it became insolvent. Hence, ‘the self-fulfilling prophecy is, in the beginning, a false definition of the situation, evoking a new behaviour which makes the originally false conception become true’ (Merton 1948: 195). Merton went on to describe how much of the prejudice then evident in American society, and the outcomes of that prejudice, could be explained by the self-fulfilling prophecy effect. For example, he explained how, in Mississippi at the time, the state spent five times as much on educating white students as on African American students, because African Americans were considered inferior intellectually. Of course, this led to African Americans achieving less in school – the self-fulfilling prophecy effect. Interestingly, expectation research, or research into the self-fulfilling prophecy effect, since Merton’s original proposal, has mostly been carried out within the disciplines of social psychology
and educational psychology, rather than sociology, the discipline within which it was originally conceived.

**Early beginnings of expectancy research**

During the 1950s, Robert Rosenthal was a young psychologist who became interested in how experimenters could unconsciously influence their subjects during experiments to obtain the results they were expecting. In some very early experiments (Rosenthal 1963), thirty experimenters were told to ask almost 400 participants to look at photos of a set of people and rate them, from extreme failure to extreme success, on a 10-point scale. Half the experimenters were told their participants would be likely to rate the people in the photos positively, so above five on a 10-point scale, and the other experimenters were told that their participants were likely to rate those in their photos below five. The experimenters read exactly the same instructions to all participants. Rosenthal found that, indeed, the mean was above five for those who expected their subjects to rate the photos positively and below five for the other group of experimenters, and the differences in the ratings of the two groups were statistically significant.

Rosenthal conducted similar experiments in laboratories in which experimenters were training rats to go through mazes (Rosenthal and Fode 1963). He noticed that, if laboratory assistants were told that the rats were smart, the rats learned to go through the mazes more quickly than if he told the laboratory assistants that the rats were dull. Actually, there was no difference in the rats; they had been randomly assigned to the laboratory assistants. Rosenthal found that he got the same results, even when the rats were put into Skinner boxes, where the rats needed to learn to flick a switch if they were to obtain food. In the first set of experiments, it was thought that perhaps the laboratory assistants had handled the rats differently, depending on whether they believed their rat was smart or dull, but, in the Skinner box experiments, the laboratory assistants did not touch the rats, and yet the same results were obtained. Rosenthal proposed that the laboratory assistants must have interacted with the rats differentially but subconsciously, depending on whether they believed that the rats were smart or dull, and something about the way in which the laboratory assistants had interacted with the rats had caused the rats to learn more quickly or slowly. Thus, the laboratory assistants’ expectations had been fulfilled. Rosenthal concluded, therefore, that an experimenter’s expectations could determine, to a large and significant degree, the types of result that could be obtained in experimental studies. He suggested that this led to researchers having their hypotheses confirmed.

Rosenthal (1963) published his results in an American science journal. In pondering the implications of his studies, Rosenthal queried whether, if a senior teacher told a beginning teacher that a particular student was a slow learner, this prompt would subsequently lead to that expectation being fulfilled. It happened that Lenore Jacobson, a school principal, read the article and offered her school as a potential site for the first ever teacher expectation experiment.
The first teacher expectation experiment

The primary aim of the first experiment was to see whether teachers’ expectations could be manipulated when teachers were given false information about their students. In their book, Rosenthal and Jacobson (1968) began by outlining how the expectations of teachers could lead to potentially differential teaching quality for African American and white students, and for students from poor socioeconomic backgrounds, as opposed to those from middle-class families, even when the students had similar initial achievement. They proposed that teacher expectations could be one explanation for the widening achievement gap between African American and white students as they progressed through school, because these different students were exposed to contrasting learning experiences and teacher input. This discussion provided the background for the Pygmalion experiment, as it became known.

Oak School, where the experiment took place, was in a low socioeconomic area, and the student achievement was generally low. Before the experiment began, Rosenthal and Jacobson used a little-known, mostly non-verbal, IQ test (Test of General Ability, or TOGA) with all the students in the school. They dressed it up as being from Harvard, where Rosenthal was based, and called it the Harvard Test of Inflected Acquisition. The teachers were told that it was a new test that was able to predict which students would suddenly bloom during that year. The test was administered to the students four times: first, as a pre-test, to provide baseline data; second, eight months after the experiment began; third, one year after the first administration; and fourth, two years after the initial baseline data were collected.

Following the pre-test, the teachers were presented with class lists in which from one to nine students had been nominated as students whose trajectory of academic gains would suddenly steepen that year – the ‘bloomers’. Over the entire school, 20 per cent of students had, in fact, been randomly selected to be the bloomers. One year later, when the students were tested, overall there were substantial gains in intellectual growth for the students who had been identified as bloomers when compared with their peers. Similar results were found for reading, where, overall, the identified students made more progress than the control-group students. Greater intellectual and reading gains were noted for the students in Grades 1 and 2, however, than for the students in Grades 3–6, and girls in the experimental group gained more in intellectual growth than boys. Students in the school were in ability tracks, and the bloomers in the middle track made much greater reading progress over the year of the experiment than did those in the high track.

By way of explanation for the overall results from the first year of greater gains for the younger students, Rosenthal and Jacobson suggested that younger students might be more susceptible to the effects of teachers’ expectations than older students. They also argued that teachers might not have been so readily influenced by the false information in relation to the older students, whom they
might have already known, or at least that teachers might have been aware of their reputations. A further possibility was that the younger students might have been more responsive to the ways in which teachers communicated their expectations to students. Although they did not measure how the teachers interacted with the students, Rosenthal and Jacobson proposed that the teachers must have interacted differently with those for whom their expectations had been raised, causing improved intellectual performance in the students – the self-fulfilling prophecy.

Towards the end of the first year of the experiment, the teachers were asked to rate all their students’ classroom behaviour. The ratings for the control and experimental students were then compared. The behaviours fell into three clusters. The first cluster, labelled intellectual curiosity, comprised teacher ratings for students’ intellectual curiosity, the probability that the students would be successful in the future, and how interesting the students were. The second cluster, adjustment, was made up of teachers’ ratings for the adjustment of students, and for how happy, appealing, affectionate, and non-hostile the students were. The final group of variables, need for approval, was made up of only one item, which did not relate to the other variables. Overall, the experimental group was rated by their teachers as showing more intellectual curiosity than their control-group peers. The effect was particularly evident among the younger students, but there was also a statistically significant difference in the teachers’ ratings of intellectual curiosity between the two groups at Grade 6. In terms of ratings for adjustment, there was a trend for those labelled the bloomers to be considered happier than the control group, but there were no statistically significant differences found for any of the other variables. With regard to need for approval, the Grade 1 students in the experimental group were viewed by their teachers as being more self-directed and less anxious to obtain the approval of others than were those in the control group, but this was the only statistically significant difference found between the bloomers and non-bloomers. Hence, there was no overall difference in need for approval between the experimental and control groups.

As mentioned above, the children were tested eight months into the experiment as a measure of how quickly the experimental effect came into being. It was found that, although there was some evidence of a gap in intellectual performance appearing at that time, the differences between the experimental and control groups were not statistically significant, and so the expectancy advantages that were becoming evident were described as a trend at that point. However, in both reading and social studies, experimental students were graded higher by their teachers than their control-group peers, after just one semester. Further, the bloomers in fifth and sixth grade (the only students to sit the achievement tests) gained approximately 5 percentile points more than the control group in the vocabulary test and more than 10 percentile points for work study skills. Moreover, the advantage that these children received on the achievement tests was still evident one year later.
The final round of testing occurred two years after the initial pre-test. This final testing was designed to determine whether any of the advantages experienced by the bloomers as a result of the experiment still existed two years later. The new teachers were not told which students were part of the experimental group, because the experimenters wanted to see if any increases in intellectual growth from the first year were dependent on the experimental children being with a teacher whose expectations had been positively influenced. The follow-up test showed that the expectancy advantage for the original Grades 1 and 2 bloomers had disappeared after two years, although the experimental students in Grade 5 profited such that their gain in relation to the control group was statistically significant. Rosenthal and Jacobson posited that the younger children, who appeared to be more easily influenced by their teachers, might have needed the continual influence of high expectations for their advantage to be maintained. The middle-track students also benefitted from enhanced teacher expectations, and the experimental girls continued to show an advantage in reasoning two years later when compared with the control group, whereas, for the boys, the advantage for the experimental group was in their verbal score.

Overall in the Pygmalion study, Rosenthal and Jacobson suggested that a difference in the interaction quality of teachers with students between the experimental and control groups might have led to the gains of the bloomers. Rosenthal noted that, in his earlier work, experimenters who had been primed to believe that their rats were smart were observed to engage more pleasantly and were more enthusiastic and friendly towards them than were those who believed that their rats were dull. Hence, he proposed that it was not outrageous to consider that teachers might have been more friendly, interested, warm, expressive, and encouraging towards the bloomers rather than the non-bloomers. Rosenthal also suggested that teachers might have provided the bloomers with more, and more positive, feedback than they did with the control group, and that they may have communicated their expectations unwittingly, perhaps through non-verbal channels. However, Rosenthal did caution that, because teacher interactions, whether verbal or non-verbal, had not been measured in the experiment, any suggestions in relation to how high and low expectations might be communicated to students were purely speculative.

Reactions to the Pygmalion study

The Pygmalion experiment (Rosenthal and Jacobson 1968) resulted in headlines in some prominent United States newspapers when it was first published, and it is still favourably included in many education textbooks. Moreover, the study was cited in several American court cases, resulting in the elimination of tracking in one state, a ban on the use of intelligence tests to identify students for special education classes in another state, and the initiation of desegregation in one southern city (Spitz 1999).
Many academics were enthusiastic about the study causally implicating teacher expectations in the racial, social-class and gender injustices and inequalities of society (Jussim et al. 1996). Others advocated utilizing teacher expectancy to raise intelligence and tackle poor educational performance (Spitz 1999). Some in the general public surmised that much of the poor achievement of some students could be attributed to low teacher expectations! However, many of these claimants misinterpreted or exaggerated the effects that Rosenthal and Jacobson had found. For example, the Pygmalion experiment involved manipulating positive expectations; the effect of negative expectations was left as a question for future research. Second, Rosenthal and Jacobson did not consider racial or social-class issues: again, this was an empirical question left for further investigation, and yet there were claims that the low performance of minority groups and students from poor communities was due to teachers’ low expectations. Finally, the effects that Rosenthal and Jacobson reported were not nearly as large as claimed by some enthusiasts.

The Oak School experiment, however, also had its critics. Thorndike (1968) initiated the unfavourable critical reviews. He questioned a lot of the data gathered during the Pygmalion study, specifically pointing out the low overall score for reasoning IQ on the TOGA of the children beginning first grade. Conversely, for six bloomers in one class, Thorndike argued that their post-test scores for reasoning IQ meant that every student must have obtained perfect scores on the TOGA.

Snow (1969) was even more disparaging in his examination of the testing procedures and results. He pointed out that the TOGA was not normed for the youngest children, and, hence, the results would need to have been extrapolated, making their validity questionable. Snow also provided examples of student scores on the reasoning test where he believed there were improbable changes in scores from one testing to the next. Again, he cited the very low IQ scores for the Grade 1 classes at initial testing.

Shortly afterwards, Elashoff and Snow (1971) produced an equally damning review. Once again, they discussed the validity and inadequacy of the TOGA, citing the large variations of several individual scores over the four testing sessions and some seemingly conspicuous deviations from the distribution of scores normally found. They added to the arguments about methodology by commenting that the interpretation of results was somewhat misleading, in that, throughout their book, Rosenthal and Jacobson (1968) referred to significant increases in IQ for the experimental group as a whole, whereas significant differences were only found for Grades 1 and 2 classes. Indeed, Elashoff and Snow claimed that, in some of the higher grades, the control group outperformed the experimental group. Other researchers have proffered similar concerns (Brophy and Good 1970a; Spitz 1999).

Another censure related to the equivalence that Rosenthal and Jacobson (1968) appeared to place on IQ scores with intelligence, intellectual growth, academic ability and intellectual competence. Researchers pointed out that such
equivalence could not be assumed, and that Rosenthal and Jacobson did not provide any separate evidence of intellectual improvement (Elashoff and Snow 1971; Spitz 1999). The claim was that IQ was not easily influenced.

A further area of discussion concentrated on the mediation of effects (Brophy and Good 1970a; Cooper 1985). For an expectancy effect to have occurred, there must be intervening variables. In the classroom, these may be found in differential teacher behaviour. However, mediation was not measured in the Pygmalion study, and, hence, the researchers could only speculate about the probable influence of teacher interactions.

Nevertheless, in a later edition of the Pygmalion book (Rosenthal and Jacobson 1992), Rosenthal was able to rebut the criticisms directed at the original study. For example, in relation to both the Snow and the Thorndike critiques, Rosenthal reported that the validity coefficient for the reasoning sub-test was 0.65, which was higher than that of other such tests. Rosenthal also pointed out that, if the measurement of IQ had been unreliable, as claimed, there would have been fewer significant results, not more. This is because, when a measure is unreliable, this decreases its power, and it is harder to find statistically significant differences, not easier. Therefore, had the test used been unreliable, and yet significant results had been found, this would have strengthened the argument for the power of the findings. Further, the Elashoff and Snow critique had included several re-analyses following transformations of the data. However, Elashoff and Snow (1971) found that their analyses resulted in exactly the same findings as in the Pygmalion study for total IQ. They confirmed the findings! In relation to the reasoning and verbal IQ scores, Elashoff and Snow’s transformations of the data meant they found more significant results for the intervention than had been reported in Rosenthal and Jacobson’s original study (1968).

Even the most disparaging critics of the Pygmalion study all acknowledged the existence of expectancy effects (Snow 1995; Thorndike 1969), although they argued that teacher expectations were likely to influence learning and teaching in the classroom, rather than IQ. Brophy (1982) suggested that the Pygmalion study was worthwhile because it would increase teachers’ awareness and understanding of the possible effect of expectations on student performance. It might also be argued that the call for a description of the mediating variables in the original study was an acknowledgement of the existence of expectation effects in the classroom, and a request for future empirical studies to investigate and explicate these intervening teacher behaviours.

Hence, the academic debate about the original study by Rosenthal and Jacobson has continued to simmer in some quarters for more than forty years. There are still those who accept that teacher expectations exist, but argue that they have only small effects on students (e.g. Jussim et al. 2009). Whatever its detractors might argue, the Pygmalion study launched a new and productive area of educational and psychological research, resulting in hundreds of studies, and, following on from the original study, empirical investigations have consistently
identified the existence of teacher expectation effects – and thus the debate about Pygmalion is now redundant.

**Experimental and naturalistic studies**

**Experimental studies**

As explained above, the initial study into teacher expectation effects by Rosenthal and Jacobson (1968) was experimental, in that teachers were given false information about a random selection of students, and the effect of this information on those students’ IQs was monitored. Because of the far-reaching implications of this study, many researchers conducted similar experiments in an attempt to replicate the results (Claiborn 1969; Grieger 1970; Jose and Cody 1971). Rosenthal himself was involved in three replication attempts immediately following the Oak School experiment (Anderson and Rosenthal 1968; Conn et al. 1968; Evans and Rosenthal 1969). Although each of these differed in some way from the original study, all reported variations in IQ at retesting. However, none of the experimenters found statistically significant differences between the control and experimental groups.

One of the criticisms of the Pygmalion study had been that the mediating processes, the differential interactions of teachers that caused the changes in IQ, had not been documented. Some of the replication attempts by researchers that did not involve Rosenthal attempted to address this gap. Claiborn (1969) had observers periodically documenting teacher–pupil interactions. He found that his teachers did not behave differently towards the students who had been selected to blossom, and there were no statistically significant differences in IQ between the experimental and control groups at the end of the study. Further, his teachers were able to recall the names of the potential bloomers, and so they were aware of those who were purportedly going to suddenly improve. Importantly, however, this investigation was carried out after the students had spent two months with their teacher, and so Claiborn (1969) reasoned that the teachers had probably already formed impressions of their students, and that maybe these were not readily altered by false information.

In 1971, Jose and Cody (1971) attempted to conduct a further replication of the Pygmalion study, but controlled several of the variables previously discussed by critics. For example, assistants rather than the classroom teachers administered the TOGA, because there had been criticisms that the teachers might have influenced the results in the Pygmalion study, as they knew which students had been identified as bloomers at the times when the test was re-administered. The research assistants were not aware of who were the potential bloomers and were not told the purpose of the study. Again, though, the expectancy information was given to teachers two months after school had begun. Some teachers did report that they thought their identified students would improve (seven of
eighteen), but the only statistically significant effects were for class level – students in some class levels gained more than others. No differences were reported in the teacher behaviour towards the experimental and control groups.

**Meta-analyses in the expectancy field**

Spitz (1999) conducted a detailed review of nineteen Pygmalion replications, experimental studies completed between 1966 and 1974 where the manipulation of IQ was investigated. Only one of these provided unqualified support for the Pygmalion experiment (Maxwell 1970). Spitz did not, however, consider variables that might have influenced his findings. Raudenbush (1984) conducted an important meta-analysis of eighteen experimental studies where effects of teacher expectation on pupil IQ had been investigated. He hypothesized that the longer the teachers had known their students before the expectancy was introduced, the smaller the experimental effect would be. This made sense, because once teachers came to know their students and had formed their own expectations of them, it would seem less likely they would be influenced by false information given to them by others. Raudenbush’s hypothesis was strongly supported by the data. Experiments where teachers had had no prior contact with their students, as in the Pygmalion study, revealed a mean effect size of \( d = 0.32 \) on student IQ. However, for studies where teachers had had two or more weeks of contact with their students, the expectation effect seemed to dissipate, as the mean effect size found was \( d = -0.04 \). Overall, the mean effect size on IQ was \( d = 0.11 \). This meta-analysis lent support to teacher expectation effects on IQ where the students were unknown to the teacher. It further showed how early in the school year teachers form their expectations for their students, and how later conflicting data may not readily alter their expectations.

A meta-analysis of the first 345 experiments into expectation effects undertaken in the laboratory, the workplace, and the classroom demonstrated clear evidence that self-fulfilling prophecies do exist (Rosenthal and Rubin 1978). More than one-third (37 per cent) of these studies reported results providing support for the idea of the self-fulfilling prophecy, and the percentage of positive findings for the experimental studies undertaken in classrooms was similar. The studies were separated into eight groupings, and effect sizes were calculated for all studies in each group. The groupings were: reaction time, inkblot tests, animal learning, laboratory interviews, psychophysical judgements, learning and ability, person perception and everyday situations. The median of the effect sizes across all eight groups was \( d = 0.39 \), which meant the probability that the expectancy effects had occurred by chance was most likely zero (Rosenthal and Rubin 1978). Across the studies related to learning and ability, the mean estimated effect size was \( d = 0.54 \). Overall, Rosenthal and Rubin’s findings showed that expectancy effects were likely to be of practical importance.

In a meta-analysis of forty-seven early experimental and naturalistic (i.e. conducted in regular classrooms with their teachers and students) expectation
studies, Smith (1980) detailed the effect sizes of various variables. She found that teacher behaviour was influenced to a moderate degree by expectations ($d = 0.30$), and that, specifically, teachers tended to provide more learning opportunities for those students for whom they held high expectations, and that they ignored those students for whom they had low expectations on more occasions than they ignored those for whom they had high expectations. She further reported that teacher expectations had more effect on student achievement than they did on intelligence, with $d = 0.38$ and $0.16$, respectively.

Jussim has more recently conducted two further meta-analyses (Jussim and Harber 2005; Jussim et al. 2009). In the first of these, Jussim and Harber combined both experimental and naturalistic studies into one review. They argued that teacher expectations are generally accurate, and that the effect of teacher expectations is mostly small, ranging from $d = 0.2$ to $d = 0.41$. However, they also acknowledged that, for some students (e.g. ethnic minority students or those from poorer communities) and under some circumstances (e.g. when making a transition from one type or level of schooling to another, or with particular teachers), expectation effects can be much larger, between $d = 0.63$ and $d = 0.87$, which is a substantial effect. In the more recent review (Jussim et al. 2009), the authors provided a table showing the teacher expectancy effects across fourteen naturalistic studies and claimed that the table included all naturalistic studies in the field. They deduced that the average effect across these studies was $d = 0.35$. Unfortunately, many naturalistic studies were not included in their table (e.g. Blatchford et al. 1989), and so the representativeness of the data is in question.

Interestingly, a further meta-analysis, published by Hattie (2009) in the same year, which included both experimental and naturalistic studies, found an overall effect size of $d = 0.43$ for the effect of teacher expectations on student outcomes. Hattie’s meta-analysis included 674 studies and 784 teacher expectation effects. He also showed that the effects for some students and with some teachers were greater than the mean effect. Notably, the effect of teacher expectations on student achievement falls into the region that Hattie argues has a meaningful effect on student achievement, that is, 0.4 and above.

**Experimental versus naturalistic studies**

Good and Brophy (2008) concluded that the experimental studies had produced supportive findings with enough regularity to show that teacher expectations can have self-fulfilling prophecy effects on student achievement. Experimental studies have some limitations, however, mainly related to their internal and external validity. In such experiments, ethically, only positive expectations can be manipulated, and researchers cannot, therefore, justify assuming that negative expectations would simply produce the opposite results to positive expectations. Moreover, experimental controls in the classroom can be difficult to manage. One example of this is that the experimenter assumes that the teacher assimilates
the false information into their understandings and, in turn, into their teaching practice, but this may not be the case. Another is that teacher–student interactions proceed over a period of months, with many positive and negative transactions unrelated to the experimental variable. These may have an effect on the overall result, and yet cannot be isolated by the researcher.

In laboratory experiments, it may be possible to more fully control the internal validity, but external validity is at risk. Successful experiments do not guarantee translation into natural situations. The ‘teachers’ and the ‘students’ may not necessarily perform as they would in the classroom, and they may not adequately represent the population that the researcher is interested in generalizing to (Mitman and Snow 1985). To overcome some of the shortcomings of experimental studies in the laboratory and in the classroom, researchers began conducting their investigations into teacher expectations in normal classroom situations. For this reason, the majority of the studies reported in my summary of teacher expectation studies in the next three chapters were conducted in naturally occurring classroom settings in which there was no experimenter manipulation.

Both experimental and naturalistic studies have confirmed the existence of self-fulfilling prophecies in the classroom environment. Although the manipulation of negative expectancies is not possible in an experimental design, naturalistic studies have allowed evidence of both negative and positive interactions and effects on student performance to be systematically recorded and described. A closer understanding of the classroom processes mediating teacher expectation effects has led to the development of various theoretical models (Brophy and Good 1970a; Rosenthal 1974; Cooper 1979; Darley and Fazio 1980; Cooper and Good 1983; Harris and Rosenthal 1985; Weinstein 2002). A model that I have developed more recently and that integrates much of what was included in earlier models will be presented in the following section. This model is designed to show the process of teacher expectations, but, unlike other models, apart from that of Weinstein (2002), it also emphasizes the contextual contributors to teacher expectation effects, that is, the overall instructional and psychosocial environments of individual classrooms. This means that the effects of teachers’ expectations will be greater in some classrooms than in others. This is an important point, as, in the vast majority of the teacher expectation research, small effects are found because of the aggregation of the results across all classes. When a context-specific approach is taken (as in Weinstein’s work), the effects of teacher expectations are found to be large in some classrooms and smaller in others.

A model of teacher expectations

Teacher expectations were thought to be portrayed to students through a series of steps, illustrated in Figure 1.1. Teachers may have particular beliefs about some students. For example, in relation to the controversy surrounding the original
Pygmalion study, it was thought that teachers may have had lower expectations for students from poorer home backgrounds, because they believed that the students would not perform as well as those from middle-class backgrounds, and, hence, teachers’ expectations were influenced by beliefs that they held about students. Expectations could also be influenced by the pedagogical beliefs that teachers held. For instance, Solomon et al. (1996), using teacher self-report data and classroom observations, found that teachers working in low socioeconomic areas tended to be more sceptical about the learning potential of their students than did teachers in middle-class areas. Further, teachers in high-poverty schools did not believe that constructivist approaches, such as focusing on teaching for understanding, fostering intrinsic motivation, student autonomy and self-direction, and encouraging peer interaction and support, were appropriate for the students that they taught. The teachers also had less faith in the honesty of their students compared with those teaching in middle-class schools.

When examining the perceived class climate, Solomon and his colleagues (1996) reported that teachers in high-poverty schools, when compared with those in schools that had low poverty, stated that their schools were less pleasurable places in which to work; perceived that the school climate was not supportive, motivating or innovative; and felt that the parents were not supportive of the school. Perhaps not surprisingly then, the teachers in high-poverty schools were more negative about their work environment and expressed lower levels of satisfaction, efficacy, and motivation than their colleagues in low-poverty schools.

Classroom observations confirmed the self-report data, revealing that, compared with students in middle-income schools, students from low socioeconomic areas experienced classrooms where teachers were more controlling, with a focus on extrinsic control, and were less warm and supportive towards

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**FIGURE 1.1** A contextual model of teacher expectations
students; where there were few opportunities for student autonomy; where meaningful peer interactions were restricted; and where there were far fewer displays of student work. The differing pedagogical beliefs of the teachers working in differing contexts resulted in quite different classroom environments for students, and, worryingly, these differences in beliefs and practices existed even when achievement was controlled. This means that the teachers perceived their students to be less capable when they were in high-poverty schools than if the same students had been located in low-poverty schools, even when the achievement of the students was the same. The authors suggested that the teachers’ expectations wielded a powerful effect on their beliefs, and, in turn, that the teachers’ beliefs were reflected in their instructional practice.

It can be seen that, depending on teachers’ beliefs about particular students, they form expectations for their students, and that their expectations influence their beliefs about what is appropriate pedagogy for the students in their classes. The expectations that teachers form will lead them to plan opportunities to learn for students. These opportunities may be highly differentiated, in that the learning experiences for those considered high-achieving students may be quite different from the learning activities planned for students expected to achieve at lower levels. For example, teachers might plan independent research work for high-achieving students and far more structured, repetitive work for those considered to be low achievers, believing that this is what they need to consolidate their learning. Alternatively, similar activities can be planned for all students, and students of varying ability could be encouraged to work together.

As a result of what teachers have planned for student learning, they will implement learning experiences for students based on their expectations and their pedagogical beliefs about what is appropriate for students of perceived variable ability. This delivery of instruction involves teacher–student verbal and non-verbal interactions. Hence, teacher expectations are portrayed to students, not just through the learning experiences that are provided, but also through the verbal and non-verbal behaviours of teachers as they engage with individual students, as well as the class.

Students then participate in the learning experiences provided by the teacher and learn as a result of what is offered. An important point, therefore, is that students learn what they have been given the opportunity to learn. A further aspect to be considered is that learning in a classroom takes place, not just within an instructional environment, but also within a psychosocial one. Classrooms are social domains as much as they are instructional ones. Indeed, after the family, school is the most important social environment that students encounter in terms of shaping their psychosocial development. The interactions that students have with teachers and with their peers are thus highly influential in students forming personal beliefs about their academic capabilities. So, just as there are academic outcomes for students, there are also psychosocial corollaries.

In a recent study, McInerney et al. (2012) showed that there is a reciprocal relationship between student self-concept and achievement. When students
believe they will do well in mathematics, they tend to do well, and when students achieve well in mathematics, their mathematics self-concept tends to be high. Student academic achievement is based largely on the opportunities to learn that teachers provide; student psychosocial outcomes are based essentially on the interactions that students have with their teachers, and, as the evidence shows, the academic and psychosocial outcomes tend to go hand in hand.

Thus, both the types of learning activity that students engage in and the relationships that they enjoy with their teachers portray their teachers’ expectations. Students do not have to accede to teachers’ expectations, of course, but, when they do, a self-fulfilling prophecy effect can be said to have occurred. Further, students, particularly younger students, may have difficulty convincing a teacher that the work they are being assigned, their opportunity to learn, is not appropriate. So, when students accept their teachers’ expectations for them, or they are provided with learning opportunities only at a particular level, they are likely to achieve at the level expected. Further, the verbal and non-verbal messages that students receive, which also portray their teachers’ expectations, are likely to have effects on students’ self-beliefs. In turn, students’ self-beliefs may influence their motivation and engagement in class.

Figure 1.1 contains a dotted line from the student outcomes to teacher expectations. This is because, although teacher expectations can affect student performance, student behaviour is also thought to influence teacher expectations. Indeed, information about prior student achievement is considered to have a larger effect on teacher expectations than any other factor. However, because of the degree to which teachers can control what students actually learn, through the learning experiences that they provide, the influence of the teacher on the student is likely to be greater than the influence of the student on the teacher. This has been borne out in research. McKown (2012; McKown and Weinstein 2008) has provided evidence that teachers have higher expectations for white than for African American students with similar initial achievement. This leads teachers to provide differential learning opportunities for the two ethnic groups. As a result, despite initial similar achievement, but because of differential opportunities to learn, the white students achieve more than the African American students, and, hence, the black–white gap in the United States is exacerbated.

In this chapter, I have explained how the seminal work in the teacher expectancy field evolved; I have described the Pygmalion experiment and have shown, through Figure 1.1, the teacher expectation–student outcome sequence. As a result of Rosenthal’s ground-breaking study, the suggestion that teachers interact differently with students for whom they have high or low expectations, and the proposition that student characteristics such as social class might influence teachers’ expectations, researchers began to study various aspects of the teacher expectation–student outcome sequence. Some researchers studied student attributes or information about students that might affect teachers’ expectations (e.g. Dusek and Joseph 1983; McKown and Weinstein 2008). Other researchers began carefully to document teacher differential interactions with students, to
learn how teacher expectations were portrayed to students (e.g. Cooper and Good 1983; Brophy 1985), and yet another group of researchers studied how students knew that their teachers had high or low expectations for them (Weinstein 1986; Babad 1998). A handful of researchers also explored whether particular beliefs of teachers moderated the expectation effects, leading to differential outcomes for students (Babad et al. 1987; Weinstein 2002). Subsumed within these directions of research were concerns about the academic and psychosocial outcomes for students as a result of teachers’ differential expectations. In the next three chapters, I focus on summarizing the work of researchers in these respective areas of teacher expectations, beginning with the student characteristics that can influence teachers’ expectations, moving to differential behaviours of teachers and student perceptions of teachers’ expectations, and finishing with teacher differences and beliefs and the effects these have on their expectations for students.
Teachers assimilate and integrate various pieces of information about their students as they form their expectations about academic performance, attitudes and social development. Expectations are strongly linked to student prior achievement, but can also be influenced by student attitudes, such as perceived effort. Further, as mentioned previously, student characteristics such as social class, ethnicity and gender may sway teachers’ expectations. In the first part of this chapter, I discuss the importance of prior achievement and student effort in shaping teachers’ expectations, but the major focus of the chapter is on various student characteristics and how these have been found to temper teachers’ expectations.

Prior achievement

The most salient information that teachers use to form expectations for children’s learning is the student record of previous achievement. In a longitudinal study, Mistry et al. (2009) reported that, throughout the three years of their study, changes in student academic achievement systematically predicted teachers’ expectations, although they acknowledged that this relationship was likely to be bidirectional. In a recent study (Gut et al. 2013), the authors showed that both parent and teacher expectations were predicted by family adversity, general intelligence of the student and student adversity. Conversely, parent and teacher expectations predicted students’ academic achievement three years later, as did students’ scores on a general intelligence test and their teachers’ ratings of problem behaviour (a negative predictor). This study illustrates the potential bidirectional nature of expectations and achievement: expectations predict achievement, and achievement predicts expectations.

Hence, the portfolios and achievement information that follow students through their primary school years and often into secondary schooling serve to mould teachers’ expectations and, in turn, the learning opportunities to which children will be exposed. When teachers are given information related to students’ past performance, they use this documentation to ascertain student
ability, classroom behaviour and achievements. This is important, as teachers may form expectations for their students before having any personal contact with them. Indeed, several years ago, while working with other colleagues on a project related to how teachers set up their classes at the beginning of an academic year (Rubie et al. 2000), I distinctly remember being shocked at discovering the large proportion of teachers in our sample who had placed students in within-class ability groups in reading, before the academic year had even begun. The students were already labelled, and teachers had expectations for them, even though they had not yet met the students.

Teachers perceive portfolio information and school records to be accurate, and place credence in them. Yet studies have shown that, when students in low-achievement or middle-achievement groups are placed into higher-level groups, their achievement soon improves beyond levels their previous grouping would have indicated they were capable of. Students reassigned to a higher group consistently outperform their counterparts left in lower-level achievement groups or streams (Mason et al. 1992; Fuligni et al. 1995; Linchevski and Kutscher 1998). At times, reassigned students have outperformed the children previously categorized as having more ability (Mason et al. 1992).

Not surprisingly, therefore, in a meta-analysis undertaken by Dusek and Joseph (1983), they reported a strong relationship between the information that teachers received before the school year and the teachers’ expectations. Similarly, Jussim et al. (1996) found in the United States that the influence of previous grades, standardized test scores, IQ and reported student behaviour on teachers’ expectations was three to five times as great as that of all other influences combined. In a more recent study in the Netherlands, the authors (de Boer et al. 2010) reported that, among student characteristics (prior achievement, IQ, socioeconomic status, gender, ethnicity, achievement motivation, parents’ aspirations and grade repetition), prior achievement and parents’ aspirations for their children most influenced teachers’ biased expectations.

### Student effort

Teacher perceptions of student effort have provided evidence of perceptual bias and self-fulfilling prophecy influencing the academic performance of some students (Jussim 1989; Jussim and Eccles 1992; Jussim et al. 1996; Jussim et al. 1998). Jussim and his colleagues reported that teachers were frequently inaccurate in their perceptions of the students who had expended more effort on homework. This had an effect on the grades that students were assigned for their school reports. Teachers made the assumption that the high-achieving students had worked harder and gave them even higher grades than they deserved, whereas Jussim and colleagues’ research showed that the low-achieving students had actually spent more time on homework. When the same students were given standardized tests, the results showed that the grades the students had been given were not justified either. The high-achieving students did not score as highly
on the standardized tests as their grades had indicated they should, and so the teacher had inflated student grades in relation to actual achievement. In contrast, for the low-achieving students, the reverse was the case: their scores on the standardized tests were better than what was suggested from the grades assigned by their teachers.

Similarly, in a study exploring perceptions of gender in mathematics, Hall and Merkel (1985) reported that teachers identified girls as expending more effort than boys, although there was no evidence that this was the case. The teachers’ conception, however, resulted in the same biasing effect on grades described above in the studies by Jussim and colleagues: that is, teachers assigned higher grades to girls than they deserved.

In a further study exploring relationships between teachers’ beliefs about student effort and outcomes for students, Muller et al. (1999) gathered information related to more than 6,000 students at tenth grade, when they were in high school, and again in twelfth grade. They found that teacher perception of whether or not students had completed homework (i.e. teacher perception of the effort that students had made) was the most reliable predictor of high school graduation. This occurred taking into account students’ background variables as well as students’ prior achievement. Thus, it seems that teachers integrate their beliefs about student effort into their expectations for student learning, but teacher perceptions of student effort do not always appear to be accurate and may have damaging effects on the grades assigned to some students and the information that is recorded in student school reports.

### Student characteristics and teacher expectations

Teachers can form expectations for individual students in their classrooms, as well as for classes as a whole. In this section, I explore several individual student characteristics, other than achievement or effort, that have been investigated as possibly having an effect on teachers’ expectations.

There has been a plethora of research into relationships between student characteristics and teacher expectations. Specific characteristics that have been investigated include ethnicity, social class, gender, diagnostic labels, physical attractiveness, language style, the age of the student, personality and social skills, the relationship between teacher and student background, names and other siblings. Although there is not complete agreement among researchers about the relative influence of diagnostic labels, social class, ethnicity and gender, they are the student characteristics that have been explored most consistently, or have been found to be most salient.

Researchers generally agree that some student characteristics render children more susceptible to teacher expectations than others. These include having an identified disability (diagnostic label), socioeconomic status, belonging to an ethnic minority group, and student gender (Plewis 1997; Stinnett et al. 2001; McKown and Weinstein 2002; Laker et al. 2003). Further, students with more
than one vulnerability, such as students who are members of an ethnic minority group and have low socioeconomic status, appear to be more susceptible than students with just one potential contributing factor. It seems that having more than one vulnerability may result in additive effects of teachers’ expectations (Jussim et al. 1996).

In the following sections, I outline some of the research related to diagnostic labels, social class, ethnicity and gender. I have attempted to discuss these independently; however, there is inevitably some overlap, because some of the research investigates more than one factor.

**Diagnostic labels**

Diagnostic labels have been identified as having a major influence on teacher expectations (Stinnett et al. 2001; Bianco 2005; Batzle et al. 2010; Woodcock and Vialle 2011). Teachers appear to have very different expectations for students labelled as having learning or behavioural difficulties, compared with those who are not labelled. This has been borne out in experiments where some students have been labelled and others have not. For example, in one study (Batzle et al. 2010), 294 teachers completed a survey that included a vignette of a hypothetical child. Rating scales of behaviour, intelligence and personality were distributed to teachers. Descriptions of the child were identical, but gender and labels were changed. The child was variously described as having no label, as having ADHD, or as having ADHD and on stimulant medication, and was described as either male or female. There was no effect of labelling for gender. However, when the child was described as having ADHD, teachers rated the child much less favourably on the behaviour and personality scales compared with the child who was labelled as having ADHD and on medication. Teachers rated the child on ADHD and medication less positively on all the scales – behaviour, personality and intelligence – when compared with the child who had no label. Similar experiments have been conducted with pre-service teachers in the United States (Stinnett et al. 2001) and in Australia (Woodcock and Vialle 2011), with consistent findings. It appears that, for both teachers and pre-service teachers, giving a child a label can result in lowered expectations for them. Teachers appear to base their expectations for children with disabilities on the label the students are given.

**Ethnicity**

Whether or not teachers form expectations based on student ethnicity is of interest to researchers and teachers, particularly given the poor relative academic achievement of ethnic minority groups in many countries and the consequent detrimental effect that lowered teacher expectations may have on the academic achievement of these groups. Generally, the research does point to ethnicity being a factor in teachers’ expectations.
In a meta-analysis, Tenenbaum and Ruck (2007) confirmed the results of earlier meta-analyses by Dusek and Joseph (1983) and Baron et al. (1985). They found that teachers favoured white students over African American and Latino students. They also found that teachers were more likely to refer white students to gifted programmes than students from ethnic minority groups. In contrast, in primary schools, teachers were more likely to refer ethnic minority students than white students to special education programmes and for disciplinary procedures. Further, teacher interactions with white students were more positive or neutral than they were with the two ethnic minority groups. These biasing effects of teacher expectations towards minority groups, and the consequent interactions with students, are likely to lead to fewer educational opportunities for African American and Latino students. Put another way, as a result of teachers’ expectations, white students are likely to receive more opportunities to learn than minority group students, which can exacerbate any achievement differences.

The meta-analysis by Tenenbaum and Ruck included only studies conducted in the United States. However, findings have been similar in other countries. In the United Kingdom (Huss-Keeler 1997), interviews with teachers in one school showed that, although they did not appear to be biased against African Caribbean students, they were biased against Pakistani students. Practices such as not allowing Pakistani students to take reading books home were reported. Although all other students took books home, the teachers believed that Pakistani parents were not supportive of education and that, therefore, the students would not read the books at home and might not return them. Hence, Pakistani students were being disadvantaged in terms of opportunities provided to develop their reading skills, and it is possible that their disadvantage was being exacerbated.

Within the New Zealand context, one study (Rubie-Davies et al. 2006) showed that primary school teachers had lower expectations relative to achievement for Māori students than for all other ethnic groups (New Zealand European, Pasifika, Asian). By the end of the year of the study, Māori students had made less progress in reading than the other groups. Interestingly, although the achievement of Pasifika students (those from Pacific Islands such as Samoa, Tonga, Cook Islands, Fiji and Niue) was lower than that of Māori students at the beginning of the year, teachers’ expectations were higher for Pasifika than for Māori students. Whereas Māori achievement had been similar to that of New Zealand European and Asian students at the beginning of the year, by the end of the year there was a large difference between Māori and the other two groups, such that the Māori students were achieving well below the New Zealand European and Asian students. Anecdotal evidence suggested that teachers believed that the parents of Pasifika students valued education more than did the Māori parents. It is possible these beliefs may have led to a negative biasing effect towards Māori.

Nevertheless, some more recent studies, conducted after the meta-analysis of Tenenbaum and Ruck and the studies cited above, are beginning to suggest that teachers may be modifying their expectations towards minority groups in some
contexts. For example, a Dutch study (de Boer et al. 2010) showed that teacher expectation bias was not related to ethnicity. Similarly, a more recent study in New Zealand (Rubie-Davies et al., forthcoming a) examined teacher expectations by ethnicity, with a large sample of more than 2,000 students, in mathematics and in reading. In this instance, the only biasing of teachers’ expectations was towards Asian students in mathematics. Teachers held more positive expectations for Asian students’ end-of-year achievement than their actual achievement showed was warranted.

In New Zealand, in particular, the work of Bishop and colleagues (Bishop et al. 2003; Bishop and Berryman 2006), in which Māori secondary school students were interviewed about why they were not achieving well at school, poignantly showed that the students believed the major factors were low teacher expectations and poor teacher–student relationships. An intervention, Te Kotahitanga, carried out in eighteen secondary schools following the initial study, resulted in such large increases in Māori achievement that the government has funded implementation of the programme in a further thirty secondary schools. The results are promising. This project and concerted efforts by the Ministry of Education may have had a positive effect in New Zealand on teachers’ expectations for Māori students.

However, a more troubling explanation could lie in findings from a study in the Netherlands (van den Bergh et al. 2010), in which the researchers gathered data on teachers’ explicit prejudiced attitudes, using the Modern Racism Scale; their implicit prejudiced attitudes, using an Implicit Association Test; and teacher expectations. The implicit measure was much more closely related to teacher expectations and achievement than the explicit measure. The researchers found that teachers who had negative implicit prejudiced attitudes towards ethnic minority students were more likely to rate them as being less intelligent and to have a less promising future than were those teachers who were not prejudiced. The recent study in New Zealand cited above (Rubie-Davies et al., forthcoming a) included measurement of the teachers’ explicit and implicit bias. As reported above, preliminary findings showed no bias in teachers’ expectations towards Māori with the explicit measure; however, the Implicit Association Test suggested that teachers were positively biased towards New Zealand European students when compared with Māori. It is, therefore, possible that implicit measures may reveal teachers’ true biases towards specific groups, and, therefore, research using tests of implicit bias provides a useful direction for uncovering teacher bias.

**Social class**

Whereas there were some early studies of teacher expectations for different ethnic groups that did not uncover teacher bias, the literature related to social class was unequivocal. Student social-class background did appear to influence teacher expectations (Entwisle and Hayduk 1978; Baron et al. 1985; Alexander
and Entwisle 1988; Entwisle and Alexander 1988; Taylor and Campbell 1995; Jussim et al. 1996, 1998; Wigfield et al. 1999). The only real debate at the time was whether the expectations were accurate, and the degree to which low expectations for students from low socioeconomic groups affected student achievement.

One of the earliest studies in the area of teacher expectations and social class was that by Rist (1970). He followed a group of students from the kindergarten class (first year at school) through to the middle of their Grade 2 year (third year at school). Before the students began school, the teacher of the kindergarten class knew their names, ages, home addresses and preschool experiences, and had a list of students whose families received welfare funds. The students’ mothers were interviewed before the children began school and were asked to provide details of any health or behavioural concerns. The teacher also had subjective knowledge about any older siblings in the school. Hence, the teacher had a lot of social information about each child, but no academic data. The teacher placed the students into ability groups on the eighth day of school, and the students were seated at tables according to their group. Very early on, she began to privilege the students at table 1 by asking them to lead the class, participate in ‘show and tell’, run messages for the teacher and give out materials to the class. These children were seated closest to the teacher. Rist postulated that the differences in the groups appeared to relate to social class, in that those at table 1 were clearly better dressed and washed than those in the other groups. The students in the class who were demonstrating the development of leadership skills were all at table 1, and the teacher interacted with those students far more frequently than she did with the students at the other two tables. Table 1 students were described as the ‘fast learners’. However, those at table 1 most closely exemplified middle-class attributes valued by the teacher. The other students were ascribed low status and described by the teacher as failing.

One consequence of the teacher’s division of the students into different reading groups was that, from the eighth day of schooling, the students at table 1 were given very different opportunities to learn compared with those at tables 2 and 3; the activities they were assigned were very different. Frequently, the teacher did not even engage the lower-class students in the instruction she was presenting. By the end of the students’ first academic year (the kindergarten class), almost all of the interactions of the teacher were with students at table 1. The teacher held the students at tables 2 and 3 in low esteem and she allowed the students at table 1 to belittle them as well. The students at tables 2 and 3 became increasingly withdrawn.

In Grade 1 (second year), the new teacher maintained the groupings of the previous teacher. Those formerly at table 1 were now at table A, and the rest of the students from the first-year kindergarten class were assigned to table B, with one exception, a girl who was ascribed to table C, along with the remainder of the students in the class who were those repeating Grade 1. No child from the former tables 2 and 3 moved to table A. The differential learning opportunities
that the students had had in the kindergarten class meant that those from table 1 were the only ones who had received adequate instruction to prepare them for reading. Hence, the initial differentiation in tasks for the students when in the kindergarten class meant that a gap in achievement had already begun by Grade 1, a gap Rist (1970) claimed was largely due to the initial teacher’s expectations. The same pattern was repeated in Grade 2, whereby students remained in the groups to which they had been assigned in Grade 1. Again, no students moved up to a higher group. By Grade 2, the groups were based on the reading level of the students at the end of Grade 1. However, as all students had to progress through the reading books in sequence and along with their group, because the top group was ahead of the others at the beginning of the year, there was no opportunity for the students in the other groups to move ahead, even if they had the potential to do so. Hence, the expectations of the teacher of the kindergarten class, and her group assignment, had an enormous self-fulfilling prophecy effect on this group of students. Once they were assigned to a particular group, there was no way to close the gap created in the first year of school. This seminal work laid the foundation for future studies of teacher expectations for students from poor versus middle-income homes.

The long-term predictive effect of teacher expectations on student outcomes, when social class is considered, has been exemplified in other studies. Recently, Sorhagen (2013) showed that, when first-grade teachers under- or overestimated the competence of students from poorer families, this disproportionately affected their high school mathematics achievement. Similarly, teachers’ under- or overestimation of poorer students’ language skills predicted their reading comprehension, word knowledge and verbal reasoning at age 15. Hence, when teacher expectations were high, all students benefitted. When teacher expectations were high, the student gains were the equivalent of going from the forty-second percentile in Grade 1 to the seventy-third percentile by age 15 in mathematics, and of moving from the thirty-sixth percentile to the sixty-third percentile in reading – a substantial difference for students. This study showed that teachers’ inaccurate expectations early in a student’s academic career had a lasting effect on later academic achievement.

Meta-analyses by Dusek and Joseph (1983) and Baron et al. (1985) confirmed that teachers had differing expectations for students from differing socioeconomic groups. Dusek and Joseph suggested that teachers used the social-class information they had about students to form their expectations, rather than allowing their expectations to be driven by student performance. Based on their meta-analysis of seventeen studies, they reported a moderate effect of social class on teachers’ expectations \((d = 0.47)\), which translates into almost two-thirds (64 per cent) of middle-class students being expected to achieve at higher levels than lower-class students performing at average levels. A disturbing aspect of these findings is, of course, that, even when students have the same level of achievement, teachers still expect those from lower socioeconomic groups to achieve at lower levels than they do middle-class students.
Differential expectations by social class also appear to cover the whole spectrum of schooling. Muller and colleagues (1999) suggested that teachers’ expectations for their students’ college prospects were strongly related to socioeconomic status. At quite the opposite end of the schooling spectrum, Wigfield et al. (1999) found that the Grade 1 teachers in their study expected the Head Start children to receive less schooling than the non-Head Start children, even though the teachers were relatively positive about the students’ academic performance in the immediate future.

This body of research indicates that student socioeconomic status does play a part in the formation of teacher expectations. This can be damaging, particularly for students from low socioeconomic backgrounds, when expectations are below what they are capable of. That is, if expectations were higher, and the students consequently received more opportunity to learn and more challenging learning experiences, then the research presented above suggests that they could achieve at higher levels. On the other hand, if teachers believe that students from low socioeconomic backgrounds will not be able to learn at the same rate as their middle-class peers, they may provide less challenging, more repetitive types of tasks, in an attempt to ensure that the students have a firm grounding in basic understandings. This can result in students spending time learning things that they already know, to the detriment of their longer-term learning gains. For example, in a study by Timperley and Robinson (2001), a school in a low socioeconomic area was concerned that, by their third year of schooling, the students were between one and one and a half years behind national norms for literacy. Teachers explained this low achievement by focusing on the poor preparation that students had before they entered school. Because the teachers who taught the students when they first began school believed that the students had few skills on entry, they spent several months, and up to one year, teaching the students early literacy skills, before they began teaching them to read. Together with the deputy principal and teachers, the researchers developed a list of twenty-five skills that all parties agreed students needed to master before the teachers could begin formal instruction in reading. These included, for example, understanding that print and pictures in books carry a message, being able to tell others what to write, and being able to use a pair of scissors. The next forty students who entered the school were then tested by the teachers to see which skills students had mastered on school entry, and the results were collated by the deputy principal. The teachers estimated that the students had acquired about 30–40 per cent of the skills on school entry, although one teacher’s estimate was much higher (70–80 per cent). The collated results, however, showed that the median skill acquisition was 84 per cent. Only seven children had less than 50 per cent of the skills, and fifteen had more than 90 per cent. Interestingly, the students in the class of the one teacher whose estimate was higher than that of the others attained the highest reading achievement by the end of the year, although there was no difference in the students when they first entered school. The findings related to the remaining three teachers’ low expectations led them
to re-examine their instructional practices, such that students enrolling from that time onwards were given more challenging learning opportunities. Within a very short time, students in the school had reading skills close to the national averages.

**Gender**

A further characteristic of students that has been examined in relation to teacher expectations is gender. Gender stereotyping suggests that teachers have higher expectations for boys in mathematics and for girls in reading. In a meta-analysis of twenty studies, however, Dusek and Joseph (1985) reported that teachers’ expectations in relation to gender did not affect academic performance, although they did find that teachers considered girls to be more socially mature than boys. A later review of studies (Qing 1999), related to teacher expectations and mathematics, suggested that teachers tended to consider mathematics to be a male domain and to have higher expectations for, and better attitudes towards, their male students. In most studies of gender and teacher expectations, however, the size of the effect of teachers’ expectations on student achievement has been considered to be small \( (d = 0.1 \text{ or } 0.2) \).

In a recent, large-scale study (Robinson and Lubienski 2011) that tracked more than 7,000 students from school entry through to the end of eighth grade, teachers were found to underrate girls in mathematics compared with boys at every grade level, even though, when the students began school, testing showed no differences in the achievement of boys and girls. In an earlier study, Dweck et al. (1978) reported that teachers were more likely to attribute boys’ success in mathematics to ability, whereas girls’ success was more often attributed to effort. It seems that, because of these expectations, teachers provide boys with more opportunities to interact with the teacher than girls, but teachers do not seem to be aware of their differential interactions and believe that they divide their time equitably between boys and girls (Wigfield and Harold 1992). I once observed a pre-service teacher taking a mathematics lesson with a class of 9 and 10 year olds. During the introduction to her lesson, she asked twenty-one questions. Of these, nineteen were directed at boys, and only two were asked of girls. Both times a girl was asked a question, she was also asked to justify her answer. Not one boy was asked to explain his answer. When I showed the student teacher what I had recorded in a running record of the lesson, she was shocked, as she believed that she had asked similar numbers of questions of the boys and the girls. It seems that teachers can be quite oblivious to their biases.

Another curriculum area that has been associated with higher achievement by boys is science. In separate studies (Clark 1990; Yates 1993), higher teacher expectations for boys in science were reported, even though girls were performing at higher levels than boys in both studies. Hatchell (1998) investigated the attitudes of girls in science classes where the teachers held high expectations
for all the students. She found that, in these classes, the girls were achieving at high levels, were confident in their performance, and saw science as being important to them.

Reading and written language, on the other hand, are two curriculum areas where the teacher expectation seems to be that girls will achieve at higher levels than boys. The differential interactions that boys have been reported to receive for mathematics have been described for girls in reading (Good and Findley 1985), and the persistent disparity between the achievement of boys and girls in reading is still being found in recent studies (Robinson and Lubienski 2011), even though, half a century ago, Palardy (1969) provided evidence that, in classes where teachers expected boys to do as well as girls in reading, they did.

In a study completed nearer to the current century, Peterson (1998) provided a group of teachers with a selection of written language samples that did not identify the gender of the student. Teachers were asked to provide feedback on the written language samples. A significant bias in favour of female writers was reported. Teachers were often inaccurate in their perceptions of which gender had written the stories, but, when they perceived them to have been written by a girl, they assessed the work far more favourably than when the same piece was thought to have been written by a boy. Teachers described girls’ writing as superior to that of boys in the detail provided, descriptive language used, degree of creativity, legibility, and adherence to writing conventions.

There is also some evidence that teachers attribute acceptable social behaviours to girls more often than to boys (Dusek and Joseph 1985), and that girls are rated as possessing more pro-social and responsible characteristics than boys (Harold et al. 1989). Girls have been described as being better behaved than boys (Phillips 1992). Indeed, when Flynn and Rahbar (1994) found that teachers refer boys to special education twice as frequently as they do girls, when their achievement is similar, they proposed that this might be because boys tend to be more disruptive than girls and, therefore, they are more easily noticed by teachers when they are not doing well. The researchers further argued that this disadvantaged girls, as only those who were severely below average were being noticed by their teachers, and, hence, many were missing out on the opportunity of having special education support.

It appears that teachers’ stereotypical beliefs about gender may have an effect on their expectations for student achievement, although these effects are mostly reported to be small. Of particular note are mathematics and science, where boys are often expected to perform at higher levels than girls, and reading and written language, where the reverse is the case. These stereotypes are generally inaccurate, but may affect the grades that teachers assign to their students and the feedback that they give to students. Similarly, it appears that teachers expect more positive classroom behaviours from girls than from boys. There does appear to be some basis for this expectation, in that classroom observations have shown that girls tend to be less disruptive in the classroom and cooperate more readily
with their teachers. Further, boys are more likely than girls to volunteer answers to teacher questions, to make it known that they wish to answer and to call out answers. Hence, they are more visible to teachers.

**Stereotypes**

Some studies suggest that it is the stereotypes that surround particular groups (e.g. those from poorer communities, those from minority groups, or the stereotypical beliefs about gender discussed in the previous section) that may influence teachers’ expectations.

Stereotypes are beliefs about the personal attributes of particular groups of people. There are many stereotypes about different groups: blondes are dumb, Scottish people are misers, Americans are obese, Asians are good at mathematics, Irish people like to drink and eat potatoes, the French are the best lovers, African Americans are good at basketball, Italians are good cooks, women are moody, men are strong and aggressive, and so on. Stereotyping of groups is something that human beings do, often without consciously thinking about it. Stereotypes provide us with cognitive shortcuts that enable us to organize information about particular groups into small chunks, such that we can interact effectively with people from other groups when we meet them, without having to know too much about them. However, stereotypes can lead to labelling individuals; that is, endowing individual group members with the stereotype of the group. The danger of stereotypes is when we do not recognize the wide variety of individuality that is present among any group. At the extreme, negative stereotypes become prejudice, whereby all members of a particular group are seen to have the same characteristics, and individuality is not taken account of at all. Prejudice carries with it perceptions that ‘we’ are better than ‘them’. The stereotypes become overgeneralized, such that they are frequently inaccurate and are resistant to contrary information. It is thought that a large proportion of the biases that teacher expectations reveal about different ethnic groups, about social class and about gender can be explained by stereotyping. As mentioned earlier in the implicit bias studies, there are now tests available that can measure bias towards different groups; that is, biases we may have towards different groups that we may not even be aware of. One such test, where you can measure your own bias towards different ethnic groups, can be found here: www.understandingprejudice.org/iat/.

Researchers (Slaughter-Defoe et al. 1990) have even suggested that theories related to educational achievement and research design have themselves been affected by stereotypes. In a search of the literature, they found that, in spite of there being many different Asian ethnic groups, they could locate only one study where lower-achieving Asian American students had been included. Conversely, they found few that emphasized success and high achievement among African American students. Slaughter-Defoe et al. (1990) argued that this reflected
societal stereotypes rather than reality, and suggested that researchers should ensure there were empirical studies investigating African American students who were successful.

It is not surprising, then, that some researchers have been interested in the effect of stereotypes on teachers (Jussim 1989; Jussim and Eccles 1992; Jussim et al. 1996). Jussim and his colleagues found some evidence that teachers did allow stereotypes to bias their judgements when students had similar scores. This was mainly with respect to gender, although Wilson and Martinussen’s study (1999) suggested that stereotyping may apply to social class as well, and McKown and Weinstein’s research (2008) opened the possibility of ethnic stereotypes affecting teachers’ evaluations of students. Hence, stereotyping can be considered to have a strong biasing influence on teachers’ expectations.

Thus far in this chapter, I have explored student characteristics that researchers have found to have the greatest and most consistent effects on student achievement, and also those that have most frequently been investigated. Other student characteristics have also been examined in relation to the influence that they can have on teacher expectations for individual students.

Other student characteristics and teacher expectations

Other characteristics that have been identified by researchers as being a source of teacher expectations include physical attractiveness, the language style of the student, the age of the child, student personality and social skills, the cohesion of teacher and student backgrounds, names and other siblings.

Physical attractiveness

Researchers investigating physical attractiveness have found some support for the notion that teachers have higher expectations for more attractive students (Dusek and Joseph 1985; Entwisle and Alexander 1988; Jussim et al. 1996; Jussim et al. 1998). It would seem unlikely that attractive students are necessarily high achievers, and, perhaps not surprisingly, most of the research has found that high expectations for attractive students only exist at the very beginning of the year, before teachers really get to know their students. Most researchers (e.g. Dusek and Joseph 1985) have reported that, once teachers have established a relationship with the students and learned about their strengths and weaknesses, any effects of physical attractiveness on expectations disappear.

Language style

A further area where some evidence has been found of teacher expectations affecting student performance is that of language style or dialect. Where students’ form of language does not match that of the teacher, some educators have drawn the conclusion that such students have inadequate language skills; this has
translated into lowered expectations for students whose language style does not match that of the teacher (Entwisle and Hayduk 1978; Kerin 1987; Cazden 1988).

**Age of student**

Researchers generally agree that expectation effects are likely to be greater when students are younger. Kuklinski and Weinstein (2001) suggest that self-fulfilling prophecies may be more salient in the earlier years of schooling, and sustaining expectation effects may be more significant later on. One suggestion is that this is because younger students do not have fixed views of their abilities and, hence, are more malleable, whereas older students’ self-views tend to be more fixed and, hence, more easily sustained (Cain and Dweck 1995). A further suggestion is that older students have more experiences to capitalize on when framing their self-perceptions (Brophy 1985). However, more recent research has suggested that students may be more vulnerable to teachers’ expectations when they make the transition from a familiar to an unfamiliar environment (Wentzel 1997): for example, when they move from primary school to middle school, or when they begin high school, and even when they begin studying in the tertiary environment. A recent study (Li, forthcoming) of more than 4,500 tertiary students learning English as a second language, who had just entered university, found that those with teachers who had low expectations of all the students achieved much lower marks in the end-of-year standardized examination than those with teachers who had high expectations for all their students, controlling for initial achievement.

**Personality and social skills**

The personality and social skills of students can also influence teacher expectations (Babad 1998; Keogh 2000). Students who have good social skills tend to relate well to their teachers and are compliant. As such, they are likely to form good personal relationships with their teachers. This may result in teachers overestimating the achievement of such students and assigning them better grades than they deserve.

**Teacher–student backgrounds**

There is some evidence to suggest that, where teacher and student backgrounds are similar, teachers relate to such students more easily (Taylor et al. 2001). As a result, teachers may have higher expectations for students with whom they identify and may allocate them higher marks than they deserve. Because most teachers are white and from middle-class backgrounds, this is a further explanation for why some teachers have higher expectations for white than for ethnic minority group students, but, of course, this is problematic, because differential expectations can exacerbate differences between students.
Names

It has been suggested that names might influence teachers’ expectations. Names can be considered in two ways. First, teachers might have had one or more students with a particular name, for example, Daniel. When the teacher has had a particularly troublesome Daniel, this could negatively influence her expectations of another Daniel coming into her class. Although Dusek and Joseph (1985) could only locate two such studies, they reported that both found this type of biasing effect for experienced teachers, but not for inexperienced teachers. This is because experienced teachers build up a history of meeting many students, whereas inexperienced teachers have not had the opportunity to construct bias on the basis of meeting several students with the same name who were disruptive or just plain naughty.

Second, teachers may be influenced by unusual names. Vail (2005) reported that teachers tended to have lower expectations for students who had names with which they were not familiar. Students with uncommon names were referred less often to gifted programmes, even if they had equivalent achievement to others who were referred. Further, when siblings had similar achievement, but one had a more common name and the other had a less common name, teachers would have higher expectations for the former rather than the latter.

Other siblings

When teachers have already taught a previous family member, this can create expectancies for a younger sibling. This may be particularly so for a child whose older sibling has a diagnostic label. When this is the case, there may be negative consequences for teachers’ expectations of the younger sibling (Jussim et al. 1998). However, if an older sibling has achieved at a high level, a teacher may have high expectations for a younger sibling’s performance, perhaps even unrealistically high.

In this chapter, I have identified an array of individual student characteristics that may lead teachers to form biased expectations for student learning. Obviously, some are more salient than others, and these have been identified and explored in some depth. In the first chapter, I included my model of teacher expectations, which showed the sequence in which teachers form their expectations, based on information that they have about students and on the students’ characteristics. Another step in the theorized sequence from teachers’ expectations to student outcomes is the differential interactions of teachers with students, including the planning and delivery of different tasks for students to complete – differential opportunities to learn. This will be my focus in the next chapter.
1 Head Start is a United States government-funded programme that is designed to increase the school readiness of children aged from birth to 5 years who are from low-income families. The programme promotes children’s cognitive, social, and emotional development (www.acf.hhs.gov/programs/ohs/).
Teacher differential behaviour has two components, one of which has been far more frequently studied than the other. The first relates to the differential learning opportunities that teachers plan and then institute for their students. I consider this to be at the crux of teacher expectation effects, and yet this aspect has been much less studied than the differential teacher interactions with students that I outline below. Whenever the learning experiences that teachers plan for one group of students differ from those designed for another group, it is likely that one group will have more opportunities to learn than the other. Of course, there are sound pedagogical reasons why the learning experiences of some students may be planned to be quite different from those of other students. Nevertheless, this does not negate the conception that the outcome is differential opportunities to learn. And, although providing differential learning opportunities may be common practice, this does not necessarily mean it is best practice.

The second aspect of differentiation relates to the ways in which teachers interact with students, depending on whether they hold high or low expectations for a student. Following the seminal work of Rosenthal and Jacobson (1968), teacher differential behaviour became the focus of several researchers (e.g. Brophy and Good 1970b; Weinstein and Middlestadt 1979; Weinstein et al. 1982; Brophy 1983; Brophy 1985; Good and Weinstein 1986; Weinstein 1986; Babad 1998). As I explained in Chapter 1, Rosenthal and Jacobson suggested that, although not observed at the time, the teachers in their study must have interacted differently with students for whom they had high expectations from the way they did with those for whom they had low expectations, and that this might explain why the bloomers in their study achieved more than the other students. Literally hundreds of studies were carried out in an effort to determine the behaviours that possibly conveyed teacher expectations to students.

In this chapter, I discuss differentiation of learning opportunities and the effect that this can have on student learning. Second, I examine the differential teacher interactions with different students that researchers have identified as mechanisms
for conveying teachers’ expectations. In the final section of the chapter, I explore the academic and psychosocial outcomes for students when teachers hold correspondingly high or low expectations for them; that is, how students perceive differential teacher behaviours – both in the learning opportunities that are provided and in the ways that teachers interact with them.

**Differentiating learning opportunities through planning**

Planning for instruction forms the foundation of every student’s success, as planning and the decisions teachers make regarding the ways in which learning opportunities will be implemented directly affect the learning experiences to which children will be exposed. Beliefs and expectations at this level may have a profound effect on student achievement, as they often determine student opportunities for learning. The learning opportunities may then add additional weight to the differential expectations that teachers have for individual students. Planning for instruction is an area in which teachers make a variety of significant decisions that may have far-reaching consequences. Indeed, instructional planning is the point at which teachers’ beliefs about learning and their expectations for students are translated into opportunities to learn.

Teachers make decisions about the instructional methods that will be used in the classroom and the materials and resources that they will select to improve learning. They make decisions about how the learning environment will be arranged to meet the individual needs of students and work out how the pacing of a lesson can be adjusted to suit individual abilities and interests. This accumulation of pedagogical choices, partially based on teachers’ expectations, may result in differing opportunities for students to learn.

Planning can be moderated by many factors, such as gender, ethnicity, ability, achievement, self-esteem, class participation, classroom behaviour, social skills, independence and work habits (Shavelson and Stern 1981). The student characteristic that has the most significant effect on planning decisions, however, is prior achievement. Most often, achievement will align with teachers’ expectations. In a series of studies, Borko and Niles (1982, 1983, 1987) consistently found that teachers formed groups primarily on the basis of prior achievement, and other characteristics, such as motivation, work habits, maturity and class participation, were only taken into account when decisions about the placement of particular pupils could not easily be made based solely on the students’ achievement.

**Beliefs about students perceived as having high and low ability**

When teachers believe that students have not been successful because they explained a concept inadequately, they are likely to rephrase their explanations or try a new approach to teaching the idea; however, when the lack of student success is explained by a lack of ability on the students’ part, the teacher is more
likely to cease trying (Brophy 1985; Eccles and Wigfield 1985; Wigfield et al. 1999). These ideas of teachers taking responsibility for student learning or believing that students cannot learn are related to particular beliefs about ability: that is, that people are born with a fixed amount of intelligence (often referred to as a fixed view of intelligence), or that people’s intelligence can be improved with appropriate teaching (often referred to as an incremental view of intelligence). These notions about intelligence were originally proposed by Dweck (1999, 2006), and, because they have been found to have such a powerful effect on teacher planning and teaching, I discuss them in further depth in Chapter 4. It has also been suggested that the students for whom teachers have low expectations may experience less consistency in teaching methods than their peers. When teachers present a new concept to students, and the students do not immediately grasp the idea, teachers may change the way in which they attempt to teach the concept a second or even third time. This means that students for whom teachers hold low expectations can be exposed to a greater variety of pedagogical approaches than their peers, and this may be confusing for the students. This is because teachers are not always confident about how they should respond when students do not learn new concepts quickly and are likely to look for different pedagogical approaches when students fail to learn (Cooper and Good 1983).

A further way in which teachers’ beliefs may affect the learning opportunities provided for their students relates to teachers’ questioning of students and the levels of language used. When Ennis (1998) interviewed forty teachers, she found that only 20 per cent believed that questions requiring higher-order thinking were appropriate for children of any ability. A further 45 per cent consistently reported a belief that higher-order thinking should be reserved for high-ability children. Further, Arabsolghar and Elkins (2001) reported that teachers’ beliefs about student metacognitive levels and appropriate instruction did not vary across Grades 3, 5 and 7; that is, at all these grades, teachers believed that low-achieving students needed to consolidate their learning and should not be exposed to higher-level thinking. They described how low-achieving students experienced similar low-level learning opportunities, regardless of their grade, and, hence, might never have had the opportunity to develop higher-order thinking. Because of such practices, students for whom teachers hold lower expectations may receive fewer opportunities to assimilate their ideas and to articulate these (Cooper and Good 1983).

Similarly, teachers appear to associate students who speak languages other than English with lowered academic ability. When Verplaetse (1998) observed and spoke with teachers of students for whom English was their second language, he found that the teachers held lowered expectations for the children’s language skills, and that they directed them far more often, rather than questioning them, as they did for students for whom English was their first language. Verplaetse suggested that this restricted the second language students’ growth in their new language. He also found that interaction opportunities were curbed by teachers.
who believed that the English of the second language students was insufficient to respond, and so the teachers endeavoured to protect them from the embarrassment of having to respond publicly. Second language students were not asked questions that required higher-order thinking (see also Warren 2002). Considering the increasing diversity in many nations, perceptions of second language learners are an important consideration in designing learning opportunities for such students.

**Planning for students of differing abilities**

Although there is a large body of studies detailing the ways in which teachers interact with students for whom they have differing expectations, there is far less research into how teachers plan for students of differing abilities. The judgements that teachers make at the beginning of a school year may translate into expectations for performance, and these initial expectations may become rooted in subsequent estimates of student achievement. Brophy and Good (1970a) suggested that initial assessments were difficult to put aside, even in the face of future conflicting evidence. Teachers attributed particular qualities to students that the teachers believed related to the probable academic outcomes that they expected.

In an investigation of planning for differing abilities in reading, Shavelson and Stern (1981) found that instructional planning for students perceived as having low ability differed considerably from that for high-ability students. Shavelson noted that plans for the children perceived as low ability emphasized procedures, decoding skills, and structured tasks, whereas there was far more flexibility in the procedures and tasks planned for high-ability students, coupled with an emphasis on comprehension not evident in the planning for low-ability students. Similarly, differentiated learning experiences designed for low- and high-ability students in reading have been identified by other researchers as well (Allington 1983; Good 1987; Good and Brophy 2008). These include, for low-ability students as opposed to high-ability students, being asked to read aloud more frequently; reading words without a meaningful context; being asked simple recall questions, rather than questions requiring more thought; receiving a more structured organization, where decoding skills take precedence over meaning; an emphasis on correct pronunciation; and few opportunities for self-correction.

Hence, it appears that teachers plan quite different learning opportunities for students for whom they have high expectations (high expectation students) versus those for whom they have low expectations (low expectation students). When students have differing learning opportunities, they are likely to learn different things. One reason high expectation students learn more is that they are given the opportunity to do so; for low expectation students, the opposite occurs. They learn less because they are provided with restricted learning opportunities. High expectation students are taught more concepts and at a faster pace – and that is what they learn. On the other hand, new concepts are often
presented to low expectation students slowly and methodically, with repeated practice to ensure that the learning ‘sinks in’. That is what they learn, and yet, as I described in the previous chapter, when low expectation students are given similar learning opportunities to those of their high expectation peers, they can learn at a much faster rate. The instructional activities provided to students are strongly associated with differential learning. However, planning is not the only form of differentiation to which high and low expectation students are exposed. Teachers have also been shown to differentiate in their interactions with high and low expectation students, and I will discuss this in further detail in the following section.

**Teacher differential interactions with students**

One early study of teacher differential behaviour (Brophy and Good 1970a) involved observing teachers and students in four different Grade 1 classrooms. Teachers were asked to rank order their students from highest to lowest achievement, and their ranking was used to indicate high and low teacher expectations for their students. The researchers then observed the top three girls and boys and the three lowest-ranked boys and girls. Some evidence of differentiation was found. Teachers demanded that students for whom they had high expectations (high expectation students) produce quality results. Overall, they praised high expectation students more frequently than students for whom they had low expectations (low expectation students) and provided them with more support. On the other hand, the teachers were more likely to accept poor performance from low expectation students and were less likely to praise them when they did make a correct response, even though they made correct responses less often than the high expectation students.

Later, by summarizing the findings of other studies, Brophy (1985) identified seventeen teacher behaviours that differed depending on whether the behaviour was directed towards a high or a low expectation student:

1. **Wait time**: Teachers wait less time for low expectation students to respond to a teacher question than they do for high expectation students. This may be because teachers assume that high expectation students will know the answer, whereas low expectation students will not.

2. **Response following an incorrect answer**: When low expectation students incorrectly answer a teacher question, the teacher is likely to either provide the student with the answer or ask someone else. When high expectation students do not know the answer, teachers will repeat the question, rephrase or provide a clue. These differential interactions occur because teachers expect high expectation students to be able to reach the answer, but they do not have the same confidence in the low expectation students.

3. **Reinforcement**: At times, teachers will praise low expectation students when they have given an incorrect response. In instances like this, students may
believe the response they gave was correct. Therefore, the reinforcement is inappropriate. High expectation students generally do not receive inappropriate feedback.

4 Criticism: Low expectation students are more frequently criticized for failure than high expectation students.

5 Praise: On the other hand, low expectation students are praised less often for success than high expectation students, even though they tend to be successful less often.

6 Public responses: Teachers ask low expectation students to respond to questions directed to the class less often than they do high expectation students, and yet, when students for whom teachers have low expectations do answer questions, teachers are less likely to provide feedback on their public response.

7 Attention and interaction: Teachers interact less frequently with low expectation students than they do with high expectation students, and they pay less attention to them.

8 Asking for student responses: Teachers ask low expectation students to respond to questions less frequently than they do high expectation students.

9 Seating: Similar to the work of Rist (1970) mentioned in the previous chapter, teachers tend to seat low expectation students further away from them than high expectation students.

10 Quality of task completion: Teachers demand less from low expectation students and will accept substandard work from them that they will not accept from high expectation students, who are expected to produce quality work.

11 Public and private interactions: Teachers interact more often in private with students for whom they have low expectations and more often in public with high expectation students. Teachers are also more vigilant with low expectation students, such that they monitor them more closely and structure their activities carefully.

12 Grading of tests: Teachers will differentially grade tests, depending on whether the work being marked is that of a high or a low expectation student. In instances where the work is on the borderline of one grade or another, teachers are more likely to downgrade work by low expectation students and to give a higher grade to a high expectation student than is actually warranted.

13 Friendliness of interactions: Teachers tend to be less friendly and warm in their interactions with low expectation students than they are in their exchanges with high expectation students.

14 Feedback: Low expectation students are more likely to receive less informative feedback about their learning and the next steps in their learning progress than are high expectation students.
15 Eye contact and non-verbal communication: Teachers make less eye contact with low expectation students and use less expressive, positive non-verbal behaviour towards them. For example, teachers are more likely to smile at high expectation students and frown at those for whom they have low expectations.

16 Providing instruction: Teachers provide less intrusive instruction with high expectation students. They tend to work much more closely on an individual basis with low expectation students than with students for whom they have high expectations.

17 Instructional methods: Low expectation students are more likely to be taught through the use of less effective instructional methods than are those for whom teachers have high expectations. For example, high expectation students are far more likely to be given challenging, fun activities where they are given a degree of autonomy. Low expectation students tend to be more closely directed and monitored by the teacher. They are more likely to be completing low-level, repetitive tasks.

Overall, the findings of Brophy (1985) suggested that teacher interactions with low expectation students were of lower quality, and teachers did not appear to be extending these students’ thinking. There appeared to be an assumption that low expectation students would have difficulty learning; teachers did not want to put pressure on these students and so demanded less of them. However, one outcome of these behaviours was that teachers did not help low expectation students to improve their responses to questions, when, perhaps, with support they might have reached an appropriate answer: low expectation students were given less opportunity to think more deeply about problems. Any feedback they did get tended to be shorter and less informative. Further, when incorrect answers were praised – that is, the student was praised for their effort in responding – this might further have exacerbated any misunderstanding that the student had. Possibly because teachers were concerned about the low expectation students, they monitored them more closely and gave them less autonomy, such that the students had little choice about the learning activities that they were engaged in, and these activities tended to be low-level learning experiences. In turn, because low expectation students were supervised carefully, this meant that teachers tended to interact with them in private and with high expectation students in public.

However, many of the teacher behaviours that Brophy identified were very subtle. For example, a reduction in wait time or reduced eye contact could be measured in fractions of a second. Such behaviours could be considered barely noticeable, and the effects that such teacher interactions had on students, if any, were not measured at the time. The idea was that, although these behaviours were almost imperceptible, student detection and perception of them would build up over time and, therefore, could have a detrimental effect on low expectation students. Teachers were sending the students messages, however slight.
Rosenthal proposed a four-factor theory to explain the major channels through which teachers’ behaviours could send messages to their students about how they expected them to perform (Rosenthal 1974). He later measured the effect of various teacher behaviours on student achievement outcomes.

**The four-factor and the two-factor models**

Rosenthal identified four main ways in which teachers differentially interacted with high and low expectation students and he named these climate, feedback, input and output (Rosenthal 1974). Climate was defined as the warmer psychosocial environment that teachers created for high expectation students, compared with that for low expectation students. This warmth was portrayed through both verbal and non-verbal behaviours, such as additional encouragement for high-ability students, and more nodding and smiling than the low expectation students experienced.

Feedback referred to the differential types of feedback that low and high expectation students received. High expectation students were praised more often than low expectation students and were more frequently given clear feedback about their academic performance. In contrast, low expectation students were criticized more often than high expectation students, and their feedback was more often related to behavioural issues than to academic achievement. The third category in Rosenthal’s groupings was input. He suggested that teachers spent more time teaching high expectation students, presented them with more material, more difficult material, and at a faster pace, than was experienced by the low expectation students. This premise relates to opportunity to learn. Output concerned providing high expectation students with more opportunities to respond to questions than were offered to low-ability students, providing support when they were having difficulty and giving them more wait time than low expectation students – again, opportunity to learn.

As with Brophy (1985), Rosenthal’s categories focused on teacher behaviours towards individual students in the communication of expectations, but he emphasized the affective aspects of classroom interactions and suggested that non-verbal behaviours were as important as verbal interactions in informing students of their expected behaviour and performance. Thus, his theory added a psychosocial perspective to teacher behaviour. Each component of Rosenthal’s four-factor theory contained elements of both verbal and non-verbal interactions.

Later, Harris and Rosenthal (1985) amended the four-factor theory to form a two-factor theory. Harris and Rosenthal conducted a meta-analysis on behaviours identified as contributing to the mediation of teacher expectations to determine the effect the behaviours had on student outcomes. They found that climate and input factors produced the strongest effect sizes \( (d = 0.75) \). Output behaviours produced significant but smaller effect sizes \( (d = 0.41) \), whereas the effect size for feedback was quite small \( (d = 0.12) \). In the light of these findings, feedback was eliminated. The analyses showed that the
psychosocial environment of the classroom was an important component of differential teacher behaviour, and so this category was renamed ‘affect’. Input and output were combined into one grouping, which was called ‘effort’.

Hence, Rosenthal recognized the importance of the psychosocial or affective environment for the child as mediating teacher expectancies. The findings in the 1980s that teachers dispensed feedback equitably, which was contrary to the earlier findings, perhaps showed that teachers had successfully controlled their feedback behaviour in light of the well-published expectation findings. The feedback component was the one many researchers had focused on and was the most salient, but it was also the one most open to teacher change.

**Differentiation in the emotional domain**

The two-factor theory highlighted the two major areas in which teacher differential behaviour was evident to students. The first of these, effort, relates to the instructional environment of the classroom; the second, affect, relates to the psychosocial environment. As teachers realize, some differentiation in the instructional domain can be justified. However, it would be difficult to defend differentiation in the affective area. Babad (2009) labels the support that teachers provide in these two areas as learning support and emotional support. He conducted studies with primary and secondary school students and found that both groups could systematically detail differentiation by teachers in both the instructional and emotional domains. Babad reported that, at times, students could document teacher behaviours that indicated differentiation in either instructional or emotional support that even trained observers failed to notice.

In a study with Grade 5 and 6 primary school students, in more than eighty classrooms, Babad (1995) reported that students appeared to accept that teachers would put more pressure on high expectation students and less on those for whom they had low expectations. Certainly, the students had no negative reaction to this teacher behaviour. The students were also in favour of teachers who provided more learning support for low achievers. However, students were extremely negative about teachers who provided differential emotional support – and most did. Differentiation in the affective domain was reported in almost all classes, with students consistently reporting that teachers were warmer and friendlier towards high expectation students. Interestingly, teachers believed that they provided more emotional support to low expectation students. In cases where the differentiation was more noticeable, low morale was reported for the class, and students were dissatisfied with the class climate. In some classes, students reported a ‘teacher’s pet’, a child the teacher was particularly fond of. In classes in which a pet was identified, student negativity towards the teacher was further exacerbated. Babad (1998) did attempt to intervene in teachers’ differential emotional support, by providing teachers with feedback related to the student reports. However, because teachers believed that they already provided low expectation students with additional emotional support, they were unable to offer...
them even more, and so providing teachers with feedback about their differential emotional support did not lead to them changing their behaviour.

Babad and his colleagues (Babad et al. 2003) later conducted a similar study in a high school with Grade 11 and 12 students. In this context, they found that students did not endorse any form of differentiation in learning or emotional support. Students were scathing of teachers whom they reported as practising differentiation. It is likely that students believe that everyone should be treated equitably. They view teachers as people within society who should be respected; teachers hold a position of trust. Thus, inequitable treatment of students, particularly in the emotional domain, is a violation of that trust and is not accepted by students (Babad 2009).

**Differentiation in the instructional domain**

Once learning tasks become differentiated, there is always the possibility that the tasks may lead to a sustained expectation effect or to a self-fulfilling prophecy effect. It might be expected, however, that the children for whom the teacher has low expectations would perform less well than their peers in the high expectation groups, and, hence, that the learning tasks they are given may vary. The important element is whether or not the differential tasks are contributing to contrasting achievement outcomes or whether they are enhancing learning. As previously stated, once tasks become differentiated, this can have an effect on the opportunity provided for learning, which, in turn, will have an effect on what is learned by the students. Although differentiation of tasks may be appropriate where it maximizes achievement, differentiation is not acceptable when it increases the gap between high and low expectation students.

Variations in teacher expectations can lead to variations in what is taught, which ultimately will lead to variations in what is learned. Clearly, it would not be considered supportive to demand that low expectation students complete high-level tasks with which they would struggle. However, that does not preclude them being challenged. Similarly, there would be little point in increasing wait time for a low expectation student when the question being asked was factual. However, for questions requiring analysis or synthesis of information, increased wait time would likely provide low expectation students with time to process their thoughts and facilitate their response (Good and Weinstein 1986). Certainly, they should be given the same opportunity to respond as high expectation students.

The degree of student diversity in the classroom presents a continual challenge to teachers. One way in which the varying abilities of students are managed is to ability group them in some way. The most common ways of doing this are to place students in within-class ability groups or to sort them into classes that all have similar ability levels (known as tracking, streaming, setting and banding). An unfortunate consequence of this sorting is that, most often, it results in differential opportunities to learn. All students should be challenged at their level.
Regrettably, it is consistently reported that students located in high-achieving groupings are given tasks that require high-level thinking and understanding, tasks that often they have choice in completing, whereas those in lower-level groups are given more repetitive, skill-based learning experiences, designed by the teacher and about which they have no choice. Such activities can lead to boredom, decreases in student motivation, and a lowering of self-esteem. Grouping is so saliently related to teacher differentiation in learning and the learning experiences to which students are exposed that I discuss and elaborate on it in much more detail in Chapter 8.

**Student academic and psychosocial outcomes: understanding teachers’ expectations**

Differentiating the learning opportunities for low and high expectation students can have a direct effect on student achievement. The student is engaged in the process almost unknowingly and certainly has little chance of altering his or her own trajectory, as the teacher plans the student’s learning opportunities. However, teachers also provide students with messages about their expectations for them, through both the verbal and the non-verbal messages they give to students. An important aspect of the expectation model presented in Chapter 1 is that students have to acknowledge their teachers’ expectations for them, interpret those expectations and, over time, conform to them. Unless students understand what is expected of them and behave accordingly, an expectation effect cannot be said to have occurred. Several researchers have studied whether students know that their teachers have high or low expectations for them. In particular, Weinstein and her colleagues have led the field in this area (Weinstein and Middlestadt 1979; Weinstein et al. 1982; Weinstein 1983; Good and Weinstein 1986; Weinstein et al. 1987).

Generally, Weinstein presented primary school students with a scenario related to a hypothetical student, either a high achiever (John) or a low achiever (Mark). For example, one scenario for a high achiever was: ‘John is someone who does really well in his schoolwork. In fact, he always gets the best grades in the class and is considered to be a very smart boy’ (Weinstein and Middlestadt 1979: 483). Students then rated teacher behaviours to report whether or not their teacher would interact with John in that way or not. Examples of behaviours included: ‘The teacher asks other students to help John’ and ‘The teacher trusts John’. Students were asked to think of their previous year’s class, not their current one, because the researchers considered that students might be reluctant to report on their current teacher. The results showed that, overall, students did report differential treatment for the high and the low achievers. For the high achiever, students perceived that the teacher expected him to do well, that she placed high academic demands on him, and that he received special privileges. In contrast, for the low achiever, the students reported that he had fewer opportunities to
participate in class, but that the teacher was more concerned about him and monitored him closely (Weinstein and Middlestadt 1979).

A second study (Weinstein et al. 1982) was conducted, this time with a larger sample and with scenarios for both high- and low-achieving boys and girls. The findings were similar, with students again reporting that teachers had higher expectations for the high achievers, and that they gave them more opportunities and choices than the low achievers received. In contrast, the low achievers were described as being spoken to more negatively by teachers and as being given more directions about what they needed to complete and how they should do it. No differences were found between boys and girls for the hypothetical scenarios.

A third study (Weinstein et al. 1987) examined differences in the perceptions of students in Grades 1, 3 and 5. Students at every year level reported that teachers treated high and low achievers differently. Again, these differences were described systematically by students, regardless of whether the hypothetical student was a boy or a girl.

Weinstein (2002) also interviewed students about their experiences in classrooms, and these are reported in her excellent book *Reaching Higher: The Power of Expectations in Schooling*. In the remainder of this chapter, I summarize those findings. One question asked students how they knew that they were clever. About two-thirds described things that their teachers did or said that let them know that they were doing well. Approximately one-quarter of the statements were self-assessments, and only a small proportion related to messages students received from either their peers or their parents. Hence, teachers were the primary source for students knowing about their ability and how they were doing at school. Generally, students gleaned this information from teacher feedback. This was mostly in the form of marks and grades they received on tests, but students were also perceptive in determining their teachers’ expectations for them from the types of learning experience they were given and from how positive their relationship was with the teacher.

When children were asked about specific instances that told them whether they had done well or not, they frequently described times where their teacher had either praised or criticized them. Students also talked about being given low-level activities and receiving a lot of help from the teacher as demonstrating that they were not doing well. The feedback that students received did not seem to be particularly useful to them in terms of knowing where to go to next with their learning. Most was in terms such as ‘very good’, and, commonly, feedback related to students’ on-task behaviour and to how well they had followed the teacher’s directions, rather than being specifically related to their learning.

The classroom is a place where students and the teacher are on view to the community of learners enclosed therein, every day throughout the academic year. One consequence of there being a large number of students and one teacher is that, inevitably, children’s performances will be on public display. Weinstein (2002) provides examples of critical public incidents where students learned
comparative information. One student spoke of a chart on the classroom wall that showed how each child was doing; another spoke about being laughed at when the teacher read her work aloud to the class. It appears that these were not isolated incidents, as Weinstein provides many, many examples. In a different paper, Good and Weinstein include instances of teacher comments to students, for example, ‘I’ll be over to help you slow ones in a moment. This group can go on by itself’, and ‘You children are slower so please get on with your work now’, and ‘The blue group will find this hard’ (1986: 68).

Students do not just take teacher behaviours at face value either. They interpret what those behaviours mean, and that interpretation is not something that, generally, observers would record. For example, students spoke of teacher voice tone or facial expressions and what they mean: ‘She has another funny way of looking at you. Not only that she is not smiling, though. She’s looking mad, unhappy, disappointed . . . I hate that feeling . . . It makes me feel like I’m stupid’ (Weinstein 2002: 99). Students also provided examples of when teachers had yelled at them, of name calling, of threats. I used to think that incidents such as these were isolated, and hopefully they are, but, unfortunately, I too have observed teachers making derogatory remarks to students. The point, perhaps, is that these very public altercations remain etched on students’ memories, and, whether the teacher regrets the outburst later or not, the students have received a very compelling message about their teachers’ expectations for them, a message that is unlikely to be forgotten. During one of my classes at university, when I teach about student interpretations of teacher behaviour that provide messages about teacher expectations, I ask my students to talk with each other about a memory (if they have one) of an incident where they themselves learned of their teacher’s expectations for them. I am always saddened that about 75–80 per cent of my students, now adults, can recall an incident that left them in no doubt about their teacher’s low expectations for them, where they felt belittled, or were told they lacked ability. Most often, it is only one instance, but it has not been forgotten. It is much rarer for students to recount teacher behaviours that told them that their teacher had high expectations for them. Perhaps these instances are less salient in students’ minds.

As I have shown, students are astute judges of teacher behaviour, and so it is not surprising that they very clearly understand where they are in the academic hierarchy. They use teacher behaviours, feedback and comments, comparisons with peers of the information each is receiving from the teacher about their work, the type of work they are being given, their test scores and their ability grouping to determine their ‘worth’. All these sources of information enable students to decide if they are near the top of the hierarchy or closer to the bottom. All these types of information are assimilated by the students and can affect student self-efficacy and future motivation, both positively and negatively. There seems little doubt that students do understand their teachers’ expectations of them and integrate them into their cognitive and social persona. Teachers have an enormous part to play in students’ lives; at times, they create memories that live
with the child as they mature and can be formative in the student’s self-belief. I certainly remember an inspirational teacher I was fortunate to have at age 11 and 12. He was wonderful: challenging, passionate, warm and caring. He set high expectations for us all. The classroom environment was always exciting, and I loved going to school. I fondly remember specific lessons we had; they were so extraordinary. He was my role model when I became a teacher. It is not an exaggeration to say that teachers can shape their students’ futures. They have a responsibility towards every child, to treat each one equitably and with kindness, and yet challenge them to reach their highest potential.

The next chapter will focus on specific types of teachers whose beliefs can moderate their expectation effects on students. Some of these teachers have larger expectation effects on their students than are typically presented in the literature, and yet the conception of teacher beliefs as moderating expectation effects has not been often explored in the literature. In fact, the major researchers who have investigated this aspect within the teacher expectation field are Rhona Weinstein, Elisha Babad and myself. It is the work of Weinstein and of Babad that forms the basis of the next chapter.
Just as students are individuals, so too are teachers, coming from differing socioeconomic and cultural backgrounds and from a variety of ethnic groups, and having a range of teaching experience, differing personalities, varying abilities and divergent beliefs about teaching and learning. These individual teacher characteristics influence the degree to which teachers will assimilate information about students and the degree to which they will use their understanding to formulate their expectations. More importantly, in this book, the individuality of teachers relates closely to how their expectations are portrayed to students. Perhaps not surprisingly, some teachers will more clearly display their expectations than will others. Some will act on information about students in ways that will differ from how their colleagues may act. The danger in studying teacher expectations, or any other belief or individual characteristic, and studying all teachers as one unit, is that the individuality of teachers is lost. It is likely that different teachers will portray their expectations very differently. In this chapter, I present work related to teacher beliefs, but, in particular, I focus on specific differences among teachers that mean that their interpretation of student information and how they act on this can be quite diverse. I begin with a general overview of a few specific teacher beliefs, to illustrate how they can alter instructional practices, and examine the influence of teachers’ personal characteristics. I will then concentrate on the work of Elisha Babad and Rhona Weinstein, both of whom have identified particular teacher beliefs that lead teachers to practise in particular ways, which, in turn, moderate expectation effects.

Teacher beliefs

To understand teacher behaviour in the classroom, it is not sufficient simply to examine the personal characteristics and expectations of teachers: the beliefs of teachers need also to be better understood. The ways in which teachers believe their role should be fulfilled, their underlying philosophies and their implicit theories about teaching and learning guide their behaviour in the classroom.
Studies of teachers’ beliefs enable a much deeper understanding of the behaviours of teachers than is possible from observations of behaviour. Teacher beliefs affect the ways in which information about learners is encoded, how that information is remembered, and the utilization of that information in making instructional decisions. The expectation literature, however, has paid little attention to the role of teacher beliefs. An understanding of the role of teacher beliefs and their contribution to teacher practice is important to gain a more comprehensive picture of teacher expectations.

### The significance of teacher beliefs for classroom practice

Teachers may behave differently towards different learners, depending on the beliefs and expectations they have for their learning. Olson and Torrance (1996) described this as ‘folk psychology’, whereas Sternberg (1982) termed such beliefs ‘layperson’s implicit theories’. The relationship between teacher beliefs, implicit theories and instructional practice has been well documented, and it may be this understanding that led Salonen et al. to write, ‘The choice of pedagogy inevitably communicates a conception of the learner. Pedagogy is never innocent’ (1998: 23).

In a review of the literature on teacher beliefs, Fang (1996) documented several ways in which teacher beliefs have been shown to affect instruction and, therefore, affect the learning opportunities provided for high and low expectation students. These included several studies reporting teaching approaches that differed in both reading and writing according to the implicit beliefs of the teachers. For example, teachers who regarded reading as involving decoding rules and understanding text focused on helping students to master and apply phonics rules and provided activities where students could read silently to assist comprehension. Others, who viewed reading more holistically, incorporated storytelling, writing, drama and opportunities to share ideas into their programmes. Fang concluded that ‘teachers’ thinking about their roles and the beliefs and values they hold shape their pedagogy’ (1996: 53).

Some researchers have hypothesized that the most significant beliefs that teachers hold about their students are those that relate to teachers’ perceptions of the causes of student behaviour and achievement. Similarly to studies presented earlier (Ennis 1998; Arabsolghar and Elkins 2001), Zohar et al. (2001) interviewed teachers about the suitability of a higher-order thinking approach for students of low and high ability, and also about the ways in which they might teach new concepts to students of differing abilities. Almost half of the teachers (45 per cent) believed that higher-order thinking was not suitable for low-ability students, and almost one-third (30 per cent) reported that they never used higher-order questions with low-ability students. Similarly, many of the teachers (45 per cent) reported that low-ability students should be taught by a transmission of knowledge approach, despite acknowledging that this approach was boring for students. Zohar and his colleagues concluded that many teachers reported
providing quite different learning opportunities for the students for whom they had contrasting expectations. It seems that teacher beliefs, as well as teacher expectations, may lead to instructional differences that, ultimately, will affect what can be learned (Brophy 1982). The pedagogical decisions that accompany teacher beliefs and expectations may expand, create or restrict the opportunities to learn, so that different students experience differential educational opportunities.

Page and Rosenthal (1990) conducted an investigation where white male and female teachers were paired with male and female Asian and white students. The teachers had to work through mathematics and vocabulary tasks with the students. The results showed that teachers appeared to act according to expected stereotypes about male and female students and about Asian and white students. When instructing male and Asian students in the quantitative task, the teachers taught at a brisker pace and included more content than they did when the students were female or when they were white. The opposite occurred with the vocabulary task, although the differences were not so marked in this condition. The researchers reasoned that this pedagogical differentiation could set in train a self-fulfilling prophecy effect.

Some researchers have proposed that teachers’ expectations for children’s learning are currently closer to the floor than they are to the ceiling (Timperley and Robinson 2001; Bishop and Berryman 2006). It is an interesting conundrum as to what constitutes expectations that are too high. Many years ago, Pidgeon (1970) described how students in Year 4 in the United Kingdom were achieving at considerably higher levels in mathematics than their counterparts in the United States. His investigation revealed that the curriculum designers in the United Kingdom held beliefs about the capabilities of children at that age that were different from the beliefs held by their counterparts in the United States. As a consequence, the curriculum the teachers implemented for the children in the United Kingdom meant they were teaching more content and at a faster pace, whereas the students in the United States were following a less demanding curriculum. Expectations of what could be achieved by 8 year olds influenced what was taught and, therefore, what was learned.

The effect of deficit theory on teacher beliefs

Some teachers’ beliefs may lead them to see students as stereotypes rather than as individuals. Warren (2002) found that teachers may hold views supporting those of the dominant culture, which may restrict their acceptance of the diversity of views and cultures that students bring to the classroom and which may lead to them forming lower expectations for these students. Such differing views and beliefs may also result in students being given differential opportunities to learn.

Teachers who are less tolerant of a range of student behaviours are more likely to have low expectations for the learning of students whose behaviour is
challenging and more likely to refer them to special education agencies in greater numbers than might be anticipated (Woolfolk Hoy et al. 2009). Again, such students may experience reduced opportunities to learn as a result. In a study where 186 teachers were all shown the same video of a classroom in action (Taylor et al. 2001), the researchers reported that male teachers were less tolerant of the behaviour of African American female students than were the female teachers. These differences were not found for white students or for males.

Earlier, I presented the work of Solomon et al. (1996), which showed how teachers can vary their instructional practice because of beliefs that they hold about students from poor socioeconomic backgrounds (see Chapter 1). A large number of researchers have found evidence that some teachers believe that a student’s home background may create a barrier to learning, and that, therefore, such students cannot be expected to make the academic progress of other students who do not have such ‘deficits’ (e.g. Arabsolghar and Elkins 2001; Timperley and Robinson 2001; Zohar et al. 2001; Timperley and Wiseman 2002; Warren 2002; Bishop and Berryman 2006). In such instances, expectations for achievement are lowered. Teachers may alter their instructional practices in accordance with their beliefs, such that they may teach the students less or modify the curriculum according to what they believe are the children’s needs; this results in such students being given less opportunity to learn, when they probably need more (Timperley et al. 1999; Timperley et al. 2002; Timperley and Wiseman 2002).

Related to beliefs about the supposed deficits that some children bring to school are beliefs about social class and ethnicity. In New Zealand, in a kindergarten setting, McLachlan-Smith and St George (2000) discussed ways in which teacher beliefs about children might have affected the children’s learning. For example, teachers thought that children would not learn until they were ready. This meant that teachers were reluctant to introduce new learning if students were not ‘ready’, and children from homes perceived as deprived were considered to be well behind their peers. This might have resulted in teachers not initiating learning opportunities for those coming from deprived home backgrounds and, therefore, further limiting their opportunities to learn.

Wigfield and his colleagues (Wigfield et al. 1999) reported that the beliefs of the teachers in their study differed meaningfully in accordance with the children’s ethnicity. All students in their study were from poor socioeconomic backgrounds, but it was only the African American students for whom teachers held lowered expectations. The teachers also expressed their lack of enjoyment in working with the African American students, compared with the white students.

So far in this chapter, I have examined how teaching practices can be altered in line with teachers’ implicit beliefs, how beliefs can influence the content that is taught, and how teachers’ theories about students’ backgrounds may lead them to make assumptions and to plan according to their beliefs. I will now look more closely at teacher traits and the influence of these on their pedagogical choices.
Personal characteristics of the teacher

Teachers differ in their personalities, social skills, attitudes, motivation and beliefs, as well in the degree of attention paid to individual student differences and in the expectations that they have for children’s behaviour and academic achievement. They also differ in the extent of their subject knowledge, in their instructional practices, in the credence and emphasis placed on information that they receive about students, and in the ways they organize their classrooms. Further differences will be found in teachers’ general intelligence, their perceptions of the control they have over situations, their beliefs about their role, and their coping mechanisms. Some of these differences may enhance student learning; others may enhance student difficulties. To date, however, there has been little research into the role of these personal characteristics and beliefs in moderating the effects of teacher expectations and opportunities to learn for students. One area that has been investigated in relation to teacher expectations and opportunity to learn is self-efficacy theory.

Self-efficacy theory and instructional practice

Teacher expectations for student learning may be influenced by teachers’ self-efficacy for their teaching abilities; that is, by their beliefs in their own abilities to make a difference for children. Teacher efficacy includes beliefs about the ability of teachers in general to influence the achievement of students, as well as personal beliefs in their own ability to positively influence student learning (Bandura 1997). Soodak and Podell (1996) distinguished between two factors of personal efficacy: teachers’ beliefs about their ability to enhance student learning and to manage student behaviour, and teachers’ beliefs about how their behaviour can influence specific student outcomes. Woolfolk and Hoy (1990) identified a third factor: teachers’ beliefs about personal responsibility for both positive and negative student achievement.

Such beliefs can play an important part in the instructional decisions that teachers make and may affect student achievement and opportunity to learn. When teachers have high expectations of themselves, they will persist at an instructional task until they are successful; they are more likely to have high expectations of all students; their self-expectations may influence the effort that they devote to instruction; and their accomplishment in the classroom will then increase in frequency, leading to feelings of success about their efforts and ability, which may further contribute to even higher teacher efficacy (Ross 1998; Tschannen-Moran and Woolfolk Hoy 2001; Woolfolk Hoy et al. 2009).

In contrast, Warren (2002) reported that teachers with low self-efficacy tended to be less motivated to improve student learning, particularly with students for whom they held low expectations (low expectation students). Because such teachers felt less able to have an effect on the academic achievement of their low expectation students, Warren suggested that they might spend more time with
the students for whom they had high expectations, where they felt more successful. Spending reduced time with the low expectation students may mean that the students make less progress than is possible, and they may experience reduced opportunities to learn. Teachers with a low sense of personal efficacy may also succumb to the deficit theories discussed above. Feeling unable to make a significant effect on the learning of the low expectation students, teachers with low teaching efficacy may explain the lack of student progress by referring to deficits in the students’ families and cultures. They may believe that no teachers would be able to teach such students successfully, or they may believe that other teachers could be successful, but that they themselves could not (Ashton and Webb 1986). Perhaps for this reason, teachers with low personal efficacy tend to refer students to special education more frequently than those with high teacher efficacy (Soodak and Podell 1998).

One of my recent studies (Rubie-Davies et al. 2012) examined the inter-relationship of some teacher beliefs in primary schools, specifically teacher efficacy, goal orientation and expectation. Surprisingly, teacher efficacy did not predict class-level teacher expectations: having stronger beliefs in one’s ability to engage students, employ a range of instructional strategies and manage class behaviour were not related to having higher expectations for all students in the class. Relationships between teacher efficacy and teacher expectations have been postulated in previous studies (Woolfolk Hoy et al. 2009), but there has been no measurement of such an association. No relationship was found between teacher goal orientation and expectations either. Goal orientation relates to beliefs about creating a focus on competition (performance goals), in contrast to focusing on the development of skills (mastery goals). Teacher efficacy for student engagement was moderately associated with having mastery beliefs, which means that, when teachers believed that they could adequately engage students in their learning, they also believed that the most effective way to teach students was through providing them with successive skills to master. However, teacher efficacy for class management was negatively related to mastery beliefs. This means that the more teachers believed that they could successfully manage even a difficult class, the less they believed that skill-based learning was useful for motivating students.

Teacher and school context factors did predict some teacher beliefs (Rubie-Davies et al. 2012). The socioeconomic level of the school and the gender of the teacher predicted teacher efficacy in student engagement, in instructional practices and in class management, and the effect size for these associations was strong. In all cases, being female predicted positive efficacy beliefs. Further, the lower the socioeconomic level of the school, the higher teachers’ efficacy beliefs. Some understanding of the New Zealand context is probably necessary to interpret these findings. In New Zealand, there is no stigma attached to teaching in low socioeconomic primary schools, and the government, in fact, inversely funds schools. This means that schools in high socioeconomic areas receive less per-pupil government funding, while those in low socioeconomic areas receive
more. Hence, all schools tend to be well resourced. Experienced teachers who want to make a difference to student learning often choose to teach in low socioeconomic areas, and so, unlike in some countries (e.g. the United States), many very effective teachers are found in low socioeconomic areas. This possibly explains why teachers from lower socioeconomic areas had higher teaching efficacy.

The same relationship was found with mastery goals; that is, being female and working in a low socioeconomic area predicted having a belief that students should be focusing on learning skills at their level. On the other hand, being male was associated with having a competitive focus. There are few studies that have explored the interrelationship of different teacher beliefs; the emphasis has been more on how one particular belief affects practice. However, teachers do not have beliefs in isolation. There is a network of beliefs to be understood that is largely unexplored. For example, my study described above (Rubie-Davies et al. 2012) chose to study teacher expectations because they are about where teachers believe their students will get to; teacher efficacy, as it is related to what teachers believe they can do to help students learn; and goal orientation, because those beliefs relate to how teachers believe lessons should be structured. Hence, there was good reason to consider that these beliefs might be related. Studying the interrelationships between beliefs is a nascent area in research, but it may provide increasing understanding about what teachers believe and how these beliefs relate to their instructional practices, to the kinds of relationships they form with students, and to the kinds of structure that are developed in the classroom.

Teachers also differ in the degree to which they take personal responsibility for student learning. Cooper and Good (1983) reported that teachers assumed responsibility for the failure of children for whom they had high expectations and for the success of students for whom they had low expectations, but not the reverse. Meyer (1985) found evidence that teachers who believed that they could have an effect on student learning, regardless of perceived ability, used fewer negative behaviours in the classroom. Some teachers appear to make additional efforts with low achievers, believing that they are responsible for those students’ learning. Babad (2009) contended that this was particularly so since teachers became aware of the expectation literature and of the ways that teachers in the 1960s and 1970s interacted with students for whom they held low expectations. Teachers who are successful in teaching low-ability students have been reported to consider themselves to be in control of the children’s learning and, more importantly, to believe that these students are capable of achieving the learning (Woolfolk Hoy et al. 2009). When teachers believe that they can make a difference to children’s development, they appear to hold less rigid expectations and adjust their expectations upwards as children progress (Brophy and Good 1986).

It seems that teachers’ attitudes and beliefs can affect both their expectations of students and their teaching efficacy, and, in turn, students’ opportunity to learn.
One teacher belief that has been found to have a powerful effect on teacher instructional practice is the notion that intelligence is either fixed or innate, or that intelligence is malleable and can be developed and increased.

**Notions of intelligence as fixed or incremental**

The teacher’s conception of ability as a stable or unstable trait has important implications for instruction, as this conception may influence teacher behaviour towards students, as well as the opportunities that are provided for student learning. When teachers believe that all children can learn, the responsibility for student learning shifts to the teacher. Such teachers are more likely to produce greater learning gains in their students. Wilkinson and Townsend (2000) reported that the best-practice teachers in their study held a developmental notion of ability. The teachers believed it was up to them to provide learning experiences that would assist each student to progress. Tunstall and Gipps (1996) similarly depicted the culture of infant schools in the United Kingdom as showing more concern for student effort than student ability. These teachers also believed that a focus on effort meant that students would continue to improve and learn, and that this was not constrained by a belief that students only had a certain amount of ability (a belief that intelligence is fixed). On the other hand, Lumsden (1998) reported that ability was considered by teachers to be the main criterion for academic success, and that this ability was viewed as fixed. Teachers who hold the view that intelligence is fixed believe that some children simply lack ability; such teachers tend to have low expectations for their students and are likely to allow their negative beliefs to act as self-fulfilling prophecies.

Dweck (2006, 2009, 2010, 2012) has led the research in this field. She has shown how powerful intelligence beliefs are in shaping future actions. Her work has important implications for teaching and for student learning. Dweck (2006) provides the example of a German researcher who showed that, when teachers believed intelligence was fixed, the students who began their academic year as low achievers were still achieving at below-average levels at the end of the year. However, when teachers believed that intelligence could be increased, many students who began the year as low achievers were average or even high achievers by the end of the year.

One explanation for such startling results may have to do with teacher–student interactions. On the basis of teacher interviews, Jordan and Stanovich (2001) classified the nine teachers in their study as believing that intelligence was either fixed or incremental (able to be increased). The teachers who believed intelligence was incremental interacted frequently with all their students, whereas the teachers who viewed intelligence as fixed did not often interact with students they perceived as low ability. Moreover, the teachers who believed intelligence was incremental frequently interacted at high cognitive levels with all their students; the teachers who viewed intelligence as fixed, when they did engage with their low-ability students, did so mostly at low cognitive levels. When the
self-concept of the students was tested, the students whose teachers believed intelligence was incremental had much higher scores than the students whose teachers believed intelligence was fixed.

The instructional behaviour of teachers may be guided by their underlying beliefs about pedagogy. Examination of behaviour alone provides an incomplete picture of the act of instruction. Beliefs about pedagogy may closely guide teaching behaviour and, therefore, may have a significant effect on the opportunities to learn that teachers provide for their high expectation students and those they provide for their low expectation students. In the next section, I introduce the work of two key researchers in the field of teacher expectations who have closely examined how teacher beliefs can act to moderate teacher expectation effects, resulting in contrasting classroom environments. The first researcher whose work I explore in greater depth is Elisha Babad, who identified biased and no-bias teachers, and the second is Rhona Weinstein, who has identified high and low differentiating teachers.

The work of Elisha Babad

In experimental studies, Babad has identified what he calls biased and no-bias teachers. The teachers were categorized as either biased or no-bias teachers based on their assessment of student drawings of a person. The student purported to have created the drawing was described as having either high or low socioeconomic status, being European or Moroccan, and attending either a very good school or one in a poor neighbourhood. Biased teachers were those whose scores were highly influenced by the biasing information, whereas the unbiased teachers judged the student drawings objectively. In an early study, Babad and his colleagues (Babad et al. 1982) asked physical education teachers to select three students for whom they had high expectations (high expectation students) and three for whom their expectations were low (low expectation students). The researchers randomly selected a further two students from each class and told their teachers that these were students who had the potential to do really well in physical education. The teachers were then asked to teach a lesson and to test the students. The researchers found that the biased teachers interacted differentially with the different groups of students, whereas the unbiased teachers did not. The biased teachers criticized the low expectation students far more than the other two groups of students and praised the high expectation students and the students purported to have potential far more than they praised the low expectation groups. The no-bias teachers distributed their feedback equitably. In testing, the low expectation students with the biased teachers performed less well than any other students.

Babad is a world-renowned expert in non-verbal behaviour and has consistently shown that teachers convey their expectations more through their non-verbal than their verbal channels – and that students understand these differences. Babad describes what he terms ‘leakage’. This is non-verbal
behaviour that differs from the words being spoken. Teachers (and people in general) may be able to control what they say, but they cannot so easily control what they feel. Their emotions are often portrayed through their non-verbal behaviour. The difference between the words being spoken and the emotions being expressed through non-verbal behaviour results in leakage: our true feelings leak out through non-verbal channels (Babad 2009).

Babad conducted a series of studies in which students were shown 10-second video clips of biased and no-bias teachers and were then asked to make some judgements. In each study, either what the teachers were saying was turned down so that it could not be heard, or the Hebrew-speaking teachers were assessed by judges who did not speak Hebrew. The judges did not know the teachers they were asked to assess, and, in all instances, only the teacher was filmed, so that the students being spoken to or about were not seen.

In the first study (Babad et al. 1989a), biased and no-bias teachers, who had previously been identified using the method described at the beginning of this section of evaluating a child’s drawing of a person, were filmed while they taught their class. Undergraduate student judges rated transcripts of words spoken over 10-second periods, then the face of the teacher and, finally, just the body. This was the first study to identify leakage among teachers and it showed that biased teachers showed more hostility, anger, tension and rigidity towards their students through the non-verbal channels; the no-bias teachers did not show a leakage effect. They did not demonstrate any anger towards their students and so did not need to try and hide it.

In the second study (Babad et al. 1989b), biased and no-bias teachers were filmed talking about a high or a low expectation student and teaching a lesson of their choice. Again, undergraduate students judged the teacher behaviour. The non-verbal behaviour of both biased and no-bias teachers was more negative when they spoke about the low expectation students and also when they interacted with them. Both groups of teachers showed less warmth towards low than towards high expectation students. Babad concluded that, even when teachers tried to conceal their feelings as they worked with low expectation students, these leaked out.

The next two studies (Babad et al. 1991; Babad and Taylor 1992) included 10-year-old students, because Babad wanted to find out whether or not young students could recognize teachers’ emotional portrayals. One of these studies included student judges who were Israeli; for them, the sound was turned down, so that they had to use non-verbal behaviours to make their judgements. The second group of 10-year-old judges was from New Zealand and could not understand Hebrew, and so the sound was left on. The student judges were asked to guess whether the student the teacher was talking to or about, who could not be seen, was an excellent or weak student academically, and also whether or not the teacher liked the student. In these experiments, the effects were stronger than with adult judges. The students could readily guess that the concealed student was a better student and better liked when the teacher was talking to or about
a high expectation student, or that the student was not well liked and was a poor student when the unseen student was a low expectation student.

Babad conducted a similar study (Babad et al. 2003) with secondary school students in which independent judges, who did not know the teachers and could not speak Hebrew, were asked to rate the non-verbal behaviour of a teacher teaching at the front of the class as being friendly, competent and interesting (from 1 = low to 9 = high). Again, the judges viewed only brief instances of the videoed teachers. These ratings were later compared with end-of-year evaluations of these same teachers by their actual students. The more positively the judges rated the teachers when they were disciplining students or controlling the class, the higher the evaluations by the actual students of their teachers as being supportive and fair. In the same study, the actual students of the teachers rated the degree to which their teachers differentiated in their learning and emotional support towards high and low expectation students. The more teachers were deemed to favour high achievers, the lower their student evaluations.

The studies that Babad has conducted show dramatically that students can easily detect teacher favouritism – and they do not like it. Students are incredibly perceptive in describing teachers’ differential treatment of high and low expectation students. Many teachers believe that they interact equitably with students, and often they do moderate their spoken language. It is not so easy to control the non-verbal channels, and it is often the information conveyed in this manner that students detect. An interesting point that Babad (2009) has made is that the teachers who claim to be able to control their body language and facial expressions are those who are least able to do so. Teachers can learn to control their non-verbal behaviour, but this is easier for some than for others.

One method of beginning this process of change is for teachers to allow themselves to be videoed teaching, even if only for a short period. The resulting videos can then be viewed privately by the teacher, so that there is no fear of being judged by others. The sound can be turned down, so that the teacher can detect whether or not they indeed differentiate in the messages that they are giving to the students from whom they expect more and less, respectively. Such analyses can be done over time, so that teachers monitor their own change, or, in a trusting environment, can provide feedback to each other.

**The work of Rhona Weinstein**

Weinstein (2002) has described how our understandings of teacher expectations need to be considered within reflections related to the ecological framework of classrooms, schools, and community. She has worked closely with students to identify how and what they learn about their teachers’ expectations from both verbal and non-verbal behaviours, and so Weinstein (2002) emphasizes the importance of considering the student perspective in understanding the lives they live in different classrooms. She also emphasizes the interdependence and
interrelationships of the environmental contexts and describes how expectation effects are a product of teachers’ beliefs and pedagogical practices, in association with student self-beliefs and student evaluation of the interactions teachers have with them, compared with those of their peers. Some students will be more susceptible to teachers’ expectations than others. The different beliefs of teachers and the teacher behaviours that result from their beliefs create quite different learning environments for students; in some classrooms, the expectancy processes will be more closely aligned to all students’ achievement, whereas, in other classrooms, they will be misaligned. Weinstein (2002) argues that alignment or misalignment results in classroom contexts in which students become more or less vulnerable to teacher expectation effects. Finally, students’ responses to teachers’ expectations need to be considered in terms of their previous experiences of teachers’ expectations and their learning trajectory – and so time is a further consideration in understanding the ecological processes that relate to teacher expectation effects. The ways in which expectation effects can carry over from one teacher to another context need to be considered as part of any ecological framework. Similarly, taking account of the ways in which expectation effects may compound over time, if students are treated similarly from one teacher to the next, is important in understanding expectancy processes. An example of the compounding of teacher expectation effects is in the study by Rist (1970), described earlier, in which the student groupings when they first entered school had an enduring and compounding effect on their future achievement.

Weinstein has identified teachers who differentiate in the ways they interact with and treat high and low expectation students versus those who do not, calling them high and low differentiating teachers, respectively. High differentiating teachers exacerbate differences between students, whereas low differentiating teachers minimize any differences. Weinstein and her colleagues have conducted several studies in which they have identified the ways in which high and low differentiating teachers differ, and how students respond to that differential treatment (Weinstein and Middlestadt 1979; Weinstein et al. 1982; Weinstein 1986, 1989, 1993, 2002; Kuklinski and Weinstein 2000; McKown and Weinstein 2008). Weinstein has shown that the different beliefs of these two types of teacher moderate the expectation effects, resulting in differing achievement outcomes for students. Those with high differentiating teachers notice the disparate ways in which some students are treated. As outlined in Chapter 3, they notice even very subtle teacher discrepancies and can report, in quite alarming detail, specific public incidents that provide messages about their ‘place’ in the classroom. Many of these teacher descriptions would be attributed to high rather than low differentiating teachers.

Weinstein (2002) has proposed the emerging model of expectancy communication, which relates to six key areas in which the beliefs and practices of high and low differentiating teachers can be distinguished. These are: how students are grouped, what students are taught, beliefs about intelligence,
enhancing motivation, the teacher’s role and the classroom climate. Weinstein proposes that the choices teachers make in relation to these aspects of the classroom influence the learning and teaching environment in three major ways. First, the decisions that teachers make in these key areas can result in different learning experiences for particular groups of students. Second, teachers can use the information they have about students to either highlight or diminish ability differences in their own minds, and, third, the choices that teachers make in relation to these six areas can affect the whole class, by increasing or decreasing the opportunities to learn and achieve. In her book, Weinstein (2002) illustrates the ways in which teachers can influence the instructional environment with descriptions of hypothetical, high and low differentiating teachers. The behaviours described below come from Weinstein’s book and are those that, as a result of her many studies, she has consistently identified as pertaining to high and low differentiating teachers.

**Grouping of students**

The high differentiating teacher placed her students in ability groups for curriculum areas such as mathematics, reading and spelling, and students were seated in these groups. The teacher frequently referred to the top and bottom groups and considered that whether or not students were in the top group was their responsibility. At times, she decided to leave students in lower groups if she thought that the students would feel pressured being in a higher group. Students needed to keep up with their group, and the teacher often threatened students that they would be dropped down a group if they did not work hard.

The low differentiating teacher used various ways of grouping her students. Although she admitted that, at times, she used ability grouping to teach students, they were seated in mixed-ability groups, described as families, and they were expected to support and learn from each other. However, the instructional grouping in reading and mathematics was flexible, and students frequently changed groups. The low differentiating teacher took responsibility for her students’ learning. She often taught whole-class lessons and worked with the family groups. She made no references to student ability.

**Deciding what to teach: materials and activities**

Perhaps not surprisingly, the high differentiating teacher taught her high and low expectation students quite different concepts and very differently. She ensured that the high achievers were given additional challenging activities that only they completed, so that they would not become bored. In contrast, she believed that her low expectation students needed to keep repeating the same work over several days if they were to learn it. All activities the students were given were described as work, even in art, and most tasks required convergent rather than divergent
thinking. The high differentiating teacher also emphasized completion of work, classroom procedures, and student compliance.

In contrast, the low differentiating teacher used similar materials and tasks for the whole class. The high achievers were encouraged to make choices and to take responsibility for their own learning, but were also expected to help others. The low differentiating teacher considered that one reason low achievers were not doing so well was because they had lower levels of motivation. Hence, one of her aims was to increase their motivation, so that they could become more self-regulated. This teacher also often introduced tasks that required divergent thinking. This provided more opportunities for students to participate, fostered collaboration among students and promoted their success. The teacher expected all students to produce quality work, and, in this kind of class, the primary purpose of their activities was to learn. The teacher emphasized that, although learning was challenging, it was also fun.

**Views of intelligence: evaluating students**

The high differentiating teacher expressed ideas for her class that were aligned with believing that intelligence is a fixed entity and that little can be done to change innate ability. This meant that the teacher saw her class as fitting on to a bell curve, with a few who had low intelligence and a few at the top end, but the vast majority falling in the middle. This perception of intelligence also explained why the teacher considered that she had little power to alter student achievement, and why she believed that the responsibility for learning rested with the students – that there was little she could do to alter their learning trajectory.

On the other hand, the low differentiating teacher expressed ideas that aligned with having an incremental notion of intelligence. She believed that all students could learn, and that the low achievers would improve as their motivation improved. This teacher viewed errors as learning opportunities and used student errors as teachable moments, that is, she would re-teach or further explain concepts when students made errors, to help them understand. She viewed the achievement differences in students to be largely because of relationships with the amount of effort students made, hence her focus on increasing student motivation.

**Enhancing student motivation**

The high differentiating teacher believed that students want to achieve well to gain status in the eyes of their peers. In other words, she emphasized performance goals – the conception that students want to do better than their classmates. She also included a range of extrinsic rewards for students when they did well; they received individual points and certificates for high achievement. Overall, she cultivated a competitive, performance-based culture in the classroom.
The low differentiating teacher motivated her students quite differently. She emphasized skill development and the satisfaction students gained from succeeding at a challenge. Further, by encouraging her students to work together, she fostered intrinsic motivation. Although her students could also gain points, the emphasis was on the group members helping each other and working together to earn points. Seating arrangements also changed regularly, which fostered cooperation across the class and provided all students with the opportunity of being in a successful group.

The teacher’s role and student responsibility

The high differentiating teacher directed the class. Although the students did have some limited choices, they were nevertheless reliant on her. When students needed help with an activity they were working on, they were expected to ask the teacher, not each other. This meant that she was frequently interrupted when working with a small group. She maintained very careful control of all students, what they were doing, and how they were doing it.

The low differentiating teacher encouraged students to help each other: she provided a facilitative environment. The students were given choices in relation to with whom they worked, how they completed activities and in which activities they chose to engage. Student self-direction was fostered, and so the students were given considerable responsibility for their own learning and were encouraged to evaluate their own efforts and those of their peers. The students were also urged to make choices in relation to the classroom environment. For example, they could choose how their groups were arranged, and each group took responsibility for cleaning and maintaining one area of the classroom.

Classroom climate

The competitive atmosphere in the class of the high differentiating teacher meant that students were often being compared academically. The teacher was not averse to name-calling and threatening students with demotion to a lower group, if they could not maintain pace with the others. She did not appear to admonish students who insulted each other, but often used parents to threaten students: that is, if they did not behave, for example, the parent would be contacted. Overall, the tone in this classroom was negative and tense.

The class climate of the low differentiating teacher was quite different. The teacher was focused on creating a community feeling in the class where everyone, including the teacher, respected and supported each other. The teacher used humour to engage students, and there was a sense of fun in the classroom. She trusted students to work conscientiously on tasks and to carry out their responsibilities within the classroom. This teacher also encouraged parent involvement in the classroom, so that parents were viewed as positive supports for learning. The low differentiating teacher worked very positively with students, and the tone in this classroom was relaxed and caring.
The comparisons between high and low differentiating teachers serve to illustrate how teachers’ beliefs can influence what is taught and learned in classrooms. They also show how teacher beliefs can have a broader role in affecting the class environment, the teacher–student relationships and the relationships that peers have with each other. Although these two types of teacher may similarly judge the same students at the beginning of the year, their very different beliefs moderate the expectation effects substantially, such that the achievement progress of students in these two kinds of classroom is likely to vary considerably. It is likely that, in the classes of high differentiating teachers, the gap in student achievement would be exacerbated over one year, whereas the gulf between high and low expectation students in classes of low differentiating teachers would most probably decrease.

**Taking account of teacher difference**

The work of both Babad and Weinstein points to individual variability in teachers in their beliefs, in their instructional practices, and in how their expectations are portrayed. There is a danger in using means to investigate teacher expectation effects across a large group of teachers, because individual teacher differences become washed out. Expectation effects are much more strongly predicted in some classes than in others, and, therefore, it is important that context is considered when examining teacher expectation effects. For example, in a study by McKown and Weinstein (2008), in classes in which teachers differentiated in their treatment of students, teacher expectations contributed on average $d = 0.29$ to the end-of-year achievement gap between white and Asian American students on the one hand, and African American and Latino students on the other, all of whom had similar achievement at the beginning of the year. In contrast, in classes where teachers did not differentiate in their treatment of majority and minority groups, the discrepancy in achievement by the end of the year that was attributable to teacher expectations was only $d = -0.003$.

It would, therefore, seem important to take teacher difference into account when investigating teacher expectation effects. Otherwise, there is the danger, when data are aggregated across all teachers, of findings that teacher expectations have only small effects on learning, whereas, in some classes, the effects are very meaningful for student achievement outcomes. Further, the work of Weinstein and Babad shows that, for some students and in some classrooms, teacher expectation effects can be reduced or increased, depending on the context in which students find themselves. Hence, it is important that researchers take an ecological approach when considering teacher expectation effects, rather than the universal approach that has been common in this field of research.

In Part I of this book, I have introduced the teacher expectation field and shown how the research has developed, and how and why researchers investigated different links in the teacher expectation chain (from expectations...
to the mediating processes and to student outcomes). In Part II, I will focus largely on my own work. Part I has provided a platform, and Part II will show how my own research stems from that base. So, in Part II, I introduce my own work and show how my studies have contributed to the teacher expectancy field. In Chapters 5 and 6, I present my work in relation to high and low expectation teachers (those who, respectively, have high or low expectations for all their students). In Chapter 7, I introduce a large-scale teacher expectation intervention project that I have been leading recently, and I present some findings from the first year of the project.
High and low expectation teachers
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As will have become evident as you read this book, years of research into teacher expectations and teacher expectation effects have provided evidence that expectations do exist in regular classroom situations, and that they can influence student performance and achievement (e.g. McKown and Weinstein 2008; Hinnant et al. 2009; Mistry et al. 2009). Such expectations may be exemplified in the learning opportunities provided, in the affective climate created and in the interactional content and context of the classroom. These experiences may differ for students within the same classroom environment, or they may differ for students across different classrooms and may lead to differential learning.

Brophy (1982) contended that expectations generally make a positive or negative difference to student achievement of about 5 per cent and asserted that, although this may be small, the accumulation of such an effect over a number of years could have marked effects on student achievement. Blatchford et al. (1989) reported rather larger effects for teacher expectations on student achievement in the United Kingdom. They found strong associations between teacher expectations and student achievement at the end of the year in each of the first three years of schooling, in both mathematics and reading (reading and writing were included in the first year). When teacher expectations and beginning-year achievement were used to predict end-of-year achievement, the effects of expectations on achievement were moderate to large ($d = 0.4$ in mathematics, and $d = 0.6$ in reading and writing in the first year; $d = 0.7$ in mathematics, and $d = 0.4$ in reading in the second year; and $d = 0.5$ in mathematics, and $d = 0.8$ in reading in the third year). Blatchford et al. (1989) also tracked more than 300 students from the beginning of infant school (first to third years of schooling) until the end of their third year. They concluded that teacher expectations and coverage of the curriculum (opportunities to learn) were the two main contributors to student progress. They showed that, across three years, even when coverage of the curriculum was controlled, the combined effect of expectations on student achievement over three years was $d = 0.9$, in
both mathematics and reading. In a recent meta-analysis of 674 studies and 784 effects (as reported in an earlier chapter), Hattie (2009) reported that teacher expectations have a $d = 0.43$ effect on student achievement. However, as I pointed out in the previous chapter, teachers identified as discriminating more between high and low expectation students in their instructional practices and student interactions may also have greater expectancy effects on their students than others who do not differentiate to the same extent (Brophy and Good 1974; Babad et al. 1982; Brattesani et al. 1984). Hence, some teachers are likely to have much larger teacher expectation effects on student achievement than others, because the expectation effects are moderated by other factors.

### Expectations for the class

Besides the expectations that teachers hold for individuals, I have recently shown that teachers hold expectations at the class level as well. These may intersect with the expectations that teachers have for individuals, but they may also operate separately. I have found that, as Brophy (1982) predicted, expectations for the class may be more salient than the expectations that teachers have for individuals (Rubie-Davies 2007; Rubie-Davies et al. 2007), and, in this chapter, I explore how class-level expectations influence student learning and self-perceptions and relate to teacher attitudes towards students.

Expectations for the class are important, because they result in the teacher forming normative expectations of achievement for a particular class. This may influence the learning opportunities that are provided by the teacher. For example, expectations for the class may affect the types of learning task that are presented and the level and quality of completion that is accepted before the teacher moves on to new concepts. Expectations may be affected by the beliefs that teachers hold for learners in some contexts. They may also be framed around stereotypes for learners in particular communities and, in turn, affect the learning opportunities provided by the teacher (Pellegrini and Blatchford 2000). As I have already mentioned, lowered expectations for classes have been associated with schools in lower socioeconomic areas (Solomon et al. 1996; Timperley and Robinson 2001) and with low-income schools attended by ethnic minority groups (Ennis 1998; Taylor et al. 2001; Timperley and Robinson 2001). Where teachers hold lowered expectations for learning, they may present less cognitively demanding learning experiences to the class, they may accept a lower standard of task completion from students, and they may spend a long time reinforcing and repeating concepts, even when students have learned and understood the ideas (Ennis 1998).

Ennis (1995) described the effects that she found of lowered expectations for classes in urban schools in the United States. She suggested that, because of the teachers’ expectations of the students, they created classroom environments where behaviour was carefully controlled. Students were given little independence, few cognitively demanding tasks, and limited opportunities to work with...
their peers. Teachers in these urban schools adhered to deficit theorizing, explaining low levels of student achievement in terms of the students’ home backgrounds. Because the teachers felt unable to overcome student background variables, their own self-efficacy for teaching declined, and they were less willing to introduce innovative programmes that were designed to improve the students’ learning.

In Chapter 2, I showed how the low achievement of students in Year 3 at one low socioeconomic school in New Zealand appeared to be because of teachers’ misperceptions of what their students knew on school entry. Timperley and her colleagues (Timperley and Robinson 2001; Timperley and Wiseman 2002) challenged the teachers’ beliefs and expectations with clear data and followed up with teacher professional development, to show how learning opportunities could be provided differently for the students. As a consequence, the teachers’ expectations altered, and subsequent student learning improved. These studies illustrated that, when teacher expectations for student learning increased, there was a consequent change in teacher attitudes, beliefs, and teaching practices for the class, and they more closely resembled the practices evident in classes where teachers have high expectations for all their students.

Good and Weinstein (1986) described a study in which low expectations for the whole class were evident in several dramatic ways, although their evidence was anecdotal. They were observing the teacher interacting with students of high and low ability, but were struck by how pervasive the teacher’s low expectations were for the whole class. They described a classroom environment that was barren and where the teacher emphasized rules and procedures, the lesson pace was extremely slow, and there was no discussion with the students, who, according to the researchers, were obviously bored. The teacher explained the students’ lack of progress by attributing this to a lack of ability.

Although there has been some research, therefore, investigating the effects of lowered teacher expectations for students in particular communities and situations, until recently, there had been little that examined the effects of uniformly high teacher expectations for the achievement outcomes of students (see Cooper and Good 1983, for one exception). Further, any evidence of low teacher expectations at the class level has tended to be anecdotal rather than empirical (e.g. Timperley and Robinson 2001). Indeed, overall, there has been very little research undertaken that examines the effects on student achievement of teachers holding uniform expectations for their classes as a whole, despite the assertion of Brophy, almost thirty years ago, 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’ (1985: 309). This may be because students spend more of their time interacting with their teachers as part of the class than they do in individual interactions (Pellegrini and Blatchford 2000).
It is my primary aim for this chapter to present evidence from some of my studies of achievement outcomes for students when they are in the classes of teachers who have uniformly high expectations for their whole class (high expectation teachers), compared with the outcomes of students with teachers who have uniformly low expectations for their class (low expectation teachers). Further, I will present details from a study in which I tracked differences in student self-perceptions across one year, when they were with high or low expectation teachers. In this chapter, I will also describe an investigation of teachers’ perceptions of how they viewed student attitudes, and how these beliefs varied for high and low expectation teachers. I will also propose that teachers are likely to have high and low expectations at the class level in tertiary classrooms, as well as at the primary school level, where most of my work is based. And, if high and low expectation teachers can be found in both primary and tertiary classrooms, then I would argue that it is likely that they will also be located in secondary schools. However, this assertion remains to be investigated in future studies.

**Early categorizing of teachers in relation to expectations**

Brophy and Good (1974) theoretically classified teachers as proactive, reactive or over-reactive, depending on their propensity for forming and maintaining biased teacher expectations. They suggested that proactive teachers would develop their own beliefs about students and use these to decide what types of instruction were appropriate. This group of teachers were those the researchers thought would be most likely to have positive expectation effects on their students, because they would plan activities to provide optimal learning for all students. Proactive teachers were also likely to have accurate expectations for their students and to adjust their expectations as students progressed; they would not let student behaviour interfere with the goals they set for students. Reactive teachers, the majority, generally also had accurate expectations for students, but would be prone to adjusting their expectations according to student behaviour. Hence, these teachers were likely to adjust their expectations in response to student-initiated behaviour. Brophy and Good proposed that these teachers were unlikely to work to decrease student difference in achievement, and so their expectation effects would tend to be sustaining, in that they would maintain the existing differences between high- and low-achieving students, rather than their expectations having self-fulfilling prophecy effects. The final theorized group, the over-reactive teachers, were those who would treat their students as stereotypes rather than as individuals, and would develop rigid expectations. These teachers were likely to allow their expectations to interfere with their teaching. They would not only respond to student behaviour, they would also treat students differentially, exaggerating differences, and producing self-fulfilling prophecy effects in students, and probably negative expectation effects for some groups of students. The over-reactive teachers were likely to favour the high-
achievers and students who were well behaved and to give up easily on those who were struggling or who were disruptive. Although these particular groups of teachers were proposed by Brophy and Good, whether or not these categories of teacher actually exist has never been empirically tested. So the role of such teacher characteristics in the communication of expectations remains unclear.

The previous chapter introduced the work of Babad and that of Weinstein, both of whom have conducted studies related to particular types of teacher, biased and no-bias teachers in the case of Babad, and high and low differentiating teachers in the case of Weinstein. Both of these researchers have been able to classify teachers according to particular beliefs that drive their instructional practice and moderate the expectation effects. The remainder of the current chapter concentrates on my own work, which has mainly focused on exploring how teachers with high expectations for their whole class differ from those whose expectations are low for their class.

### High and low expectation teachers

I define high and low expectation teachers simply as those who, respectively, have high or low expectations for all students in their class relative to achievement. I use the terms high and low expectation teachers deliberately, as I believe that this places the focus on teachers. In my view, calling students ‘high expectation’ or ‘low expectation’, in respect of teachers’ expectations for the students (see Chapter 3), takes attention away from teachers. In my earlier work, I was asking the question, ‘What is it about teachers that means that they have high or low expectations for all students?’, rather than, ‘What is it about students that means that their teachers have high or low expectations for them?’ – the question I see other research in the field asking. To me, that question is a form of deficit theorizing: something about the student creates a particular expectation in the teacher. Certainly, I acknowledge that this is a simplistic rendition of a complex issue; clearly, as I have already shown, some teachers are more easily persuaded by student factors than others. Further, factors such as teacher beliefs and interactions with students are obviously important. Nevertheless, I believe the terms ‘high expectation’ and ‘low expectation’ teachers capture the essence of my work.

#### Identifying high and low expectation teachers: academic outcomes

To identify high and low expectation teachers, I have used a class mean of teacher expectations. Teachers are asked to state, for each student in the class, where they expect the student to be achieving by the end of the year in relation to national means on a 7-point scale, where 1 = very much below average, 2 = moderately below average, 3 = slightly below average, 4 = average, 5 = slightly above average, and so on. In New Zealand, a student making average progress...
spends two years at each curriculum level. Hence, teachers generally have a good understanding that, for example, a student achieving at an average level in Year 5 would be starting curriculum Level 3 at the beginning of the year, would be about halfway through Level 3 at the end of Year 5 and the beginning of Year 6, and would complete Level 3 by the end of Year 6.

Although I will use examples with high expectation teachers to illustrate how these have been defined and measured, the reader can conclude the opposite scenario for low expectation teachers. High expectation teachers are those whose mean expectations, when compared with the achievement of all students in the class, are well above where students are currently performing. That is, the difference between teacher expectations for end-of-year achievement and beginning-year achievement is statistically significant across the class. For example, if the students in the class, overall, are achieving at average levels at the beginning of the year, and the teacher expects that, by the end of the year, they will be achieving at even a slightly or moderately above-average level, this would be considered a high expectation for all students. Generally, we might anticipate that students achieving at average levels would continue to achieve at that level. To have students alter their achievement trajectory requires substantial movement across one year. That is, to have all students move from being average to even slightly above average is a large shift, and most high expectation teachers anticipate even greater shifts. Of course, in reality, some students would be moving from average to slightly above, some would move from slightly above to moderately above, others would move from very much below average to moderately below average, and so on. The point is that, for all these students, shifts in achievement of this magnitude are large, because, in most classes, students who begin at a particular level (high, low or average) will end up at a similar level at the end of the year. Some students will move a little; most will not. It is not nearly so common for all students to make a large shift. So, when teachers have high expectations for all their students and get them there, I would consider those teachers to be high expectation teachers.

I have been asked whether a high mean expectation could simply translate into a teacher having particularly high expectations for one group (e.g. the high achievers), thus increasing the overall class mean. This is not what I have found. When teachers have a high mean expectation for their class, my analyses show that their expectations are high for all students. At a micro level, when this question first arose, I sat with a spreadsheet open on my computer and checked each student against the teacher’s expectation, to ensure that expectations were high for all.

Figure 5.1 illustrates this shift in student achievement. The graph shows the class-level teacher expectations on the $x$-axis and the effect size achievement gain for each class of students on the $y$-axis. Hence, the graph represents the effect size of the achievement gains of students in reading in classes of six high expectation teachers, compared with the reading gains for students with three low expectation teachers identified in one of my doctoral studies (Rubie 2004).
As can be seen, the gains for students with high expectation teachers are large, whereas those for low expectation teachers are negligible. The $x$-axis was deliberately placed at $d = 0.4$ on the $y$-axis, in line with Hattie’s claim (2009) that a 0.4 effect size is the mean effect for all educational interventions, and so anything above 0.4 is worth considering. Cloning high expectation teachers seems well worth considering in that case!

In Figure 5.1, close examination of the mean expectations shows that one high expectation teacher had a class-level expectation that all her students would be achieving at a slightly below average level by the end of the year, and, indeed, they did make large gains ($d = 0.86$). The class was in a low socioeconomic area, where students were generally achieving at very low levels. This example illustrates the notion that the class-level expectation is relative to achievement. For this particular class, an expectation that the students would be achieving at slightly below average levels by the end of the year was a very high expectation.

Figure 5.1 illustrates the teacher expectation and student academic progress over one year for nine teachers. This was from a total of twenty-four teachers. I also find, reasonably consistently, that about one-quarter of teachers can be classified as high expectation teachers, whereas about one-eighth can be regarded as low expectation teachers (Rubie-Davies et al. 2007; Rubie-Davies et al. 2012). This means that, in most schools, there will be some of each. Of course, it is possible there may be proportionately more high expectation teachers in one school and proportionately more low expectation teachers in another. I would
have to say that my studies do suggest that school context variables should be taken into account with consistent findings of high expectation teachers clustered in some schools and low expectation teachers in other schools (although there are also lone high and low expectation teachers in some schools). However, to date, I have not had sufficiently large samples of teachers to be able to answer the question of whether or not teachers within one school are more alike in their expectations than teachers in another school, and so this remains an empirical question for future studies.

**High and low expectation teachers and student psychosocial outcomes**

I have also measured the effects on student self-perception of being with a high or a low expectation teacher for a year (Rubie-Davies 2006). Self-perception in reading, for example, relates to how well the student thinks that they are doing, how much they value reading and how easy they find it. I have measured this using Marsh’s Self-Description Questionnaire (Marsh 1990) and included the reading and mathematics subscales. Students responded on a 5-point scale, where 1 = false, 2 = mostly false, 3 = sometimes false and sometimes true, and so on. Self-perception of their teacher’s expectations for them relates to how well the student believes their teacher expects them to do. I used two items for this originally, which were ‘My teacher thinks I am good at reading’ and ‘My teacher thinks I am good at maths’. There are eight items for the reading and mathematics scales, and so the possible range of scores is 8–40 for each scale (see y-axis). As can be seen in Figure 5.2, although student self-perceptions in reading and in mathematics were similar in the classes of high and low expectation teachers at the beginning of the year (that is, there was no statistically significant difference between the students’ self-perception in reading or in mathematics in the classes of high and low expectation teachers), by the end of the year, there was a statistically significant difference. This was mostly because there was a large drop in the self-perceptions of students with low expectation teachers, in both reading and mathematics. They began the year as confident as their peers in the classes of high expectation teachers, but, during the year, it appears something happened such that their self-perceptions declined over the year. There was a similar trend in student beliefs about their teachers’ expectations for them. Again, although there was no difference in student beliefs about their teachers’ expectations for them at the beginning of the year ($M = 8.59$ for students with high expectation teachers, and $M = 8.03$ for those with low expectation teachers), by the end of the year, the differences were statistically significant ($M = 8.56$ for students with high expectation teachers, and $M = 7.53$ for those with low expectation teachers), with, again, the beliefs of students with low expectation teachers dropping. Interestingly, though, even at the beginning of the year, students with low expectation teachers seemed to realize that their teachers did not expect as much of them as students with high expectation
teachers, because their self-perceptions were already trending lower than those of students with high expectation teachers, and this perception deteriorated even further by the end of the year.

It seems that, during one year, students with high expectation teachers make large academic gains, while their peers with low expectation teachers do not. Further, whereas students with high expectation teachers maintain reasonably positive attitudes over one year, students with low expectation teachers come to view themselves more negatively. Why is this? Clearly, expectations in and of themselves are not magical. It is what the teacher does that creates differences for students. This led me to interview high and low expectation teachers, to see if their pedagogical beliefs differed, and also to spend several hours observing them teaching, to see if their instructional practices varied. I will present the results of both my interviews with high and low expectation teachers and my classroom observations in the next chapter.

High and low expectations and perceptions of student attributes

A further aspect that I have investigated in relation to high and low expectation teachers is their perceptions of student attributes (Rubie-Davies 2010). Clearly, high expectation teachers are very positive about their students’ potential achievement progress, and so I thought they may have positive beliefs about their students in other ways. I adapted a scale developed by St George (1983) so that teachers were assessing student perseverance, independence, reaction to new work, interest in schoolwork, cognitive engagement, participation in class,
motivation, confidence, self-esteem, classroom behaviour, peer relationships, teacher relationships, parent attitudes to school, home environment, and homework completion. Teachers rated all their students on each attribute on a 7-point scale (as for the expectation scale), from very much below average to very much above average. The teachers’ perceptions of their students’ attributes were then compared with student achievement, given the evidence that teachers overall tend to equate low achievement with student attributes such as low motivation (Weinstein 2002), poor behaviour (Sorhagen 2013), and decreased effort (Jussim 1989; Jussim and Eccles 1992; Jussim et al. 1996). The high expectation teachers rated all the attributes more positively than overall beginning-of-the-year student achievement in reading (achievement was converted to the 7-point scale used above for each student), whereas, for more than half the attributes, the low expectation teachers rated their students’ attributes less positively than the students had scored on achievement. (The attributes of interest in schoolwork, motivation, classroom behaviour, relationships with the teacher, and homework completion were scored above the mean achievement score.) Further, the high expectation teachers rated all their students more positively for every student attribute than did the low expectation teachers, and, in every case, the differences were statistically significant.

I also wanted to explore whether or not teachers’ assessments of student attributes were related to their expectations for the students (Rubie-Davies 2010). For the high expectation teachers, there was either a moderate or a strong correlation between their expectations for the class and their perceptions of student attributes. The high expectation teachers did not just have high expectations for all their students, they were also very positive in their perceptions of student attributes. The picture for low expectation teachers was quite different. There were not as many relationships between the teachers’ expectations and their perceptions of student attributes. Those that had statistically significant correlations were relatively small and negative (≤ −0.39). Low expectation teachers rated student interest in schoolwork, motivation, classroom behaviour, peer relationships, teacher relationships, and homework completion more positively than they predicted student achievement progress would be over the year. It seemed that the teachers believed their students tried hard (interest in schoolwork, motivation and homework completion), behaved in class (classroom behaviour), and related well to both their teacher and their peers (peer and teacher relationships).

The pattern was similar for the correlations between student achievement and teacher perceptions of student attributes. Again, for high expectation teachers, all correlations were statistically significant and positive. There was a positive relationship between student achievement and low expectation teachers’ perceptions of student cognitive engagement.

This study builds the argument that high expectation and low expectation teachers have distinguishing characteristics; that is, that there are important moderators of teacher expectation effects. There was a differing relationship
between teachers’ expectations and perceptions of students’ attributes, depending on whether teachers were high or low expectation. For high expectation teachers, positive assessments of their students’ attributes might be anticipated, as positive student attitudes are often associated with success at school (Patrick et al. 2002). When teachers recognize such attributes in their students, they are more likely to foster positive student attitudes and social relationships, leading to enhanced motivation, engagement, and success in school (Ryan and Patrick 2001). Students in the classes of high expectation teachers made large gains in learning over one year and improved their self-perceptions (Rubie-Davies 2006); it is possible that their learning was enhanced because teachers viewed their attributes positively, as well as having high expectations for them.

The association for low expectation teachers between their expectations and perceptions of student attributes was weaker and negative. This suggests that low expectation teachers viewed the relationship between their expectations for student achievement and perceptions of student attributes differently. Although their perceptions of student progress were below what might have been anticipated, they did not necessarily view student attributes negatively. However, the students may be receiving confusing messages from teachers. Teachers may be providing positive messages about some student attitudes, but negative messages about their expectations for student achievement. Although the teachers’ expectations for their students were low, it seems they did give them credit for trying hard, behaving well in class and relating well to others.

It appears from these data that high expectation teachers’ perceptions of student attributes are overwhelmingly positive. They are affirmative in their assessments of students’ attitudes to schoolwork, student relationships with others and the support students receive from their families. There is an increasing awareness of the role of teacher care in fostering student achievement (Wentzel 1997, 2009; Patrick et al. 2002; Pianta and Stuhlman 2004). It would seem that high expectation teachers view students optimistically. This suggests a level of teacher care and respect for students.

Low expectation teachers, on the other hand, viewed student achievement negatively. However, in relation to their expectations, they perceived student interest in schoolwork, motivation, behaviour in class and completion of homework more positively. These are attitudes that pertain to student effort. One implication could be that, although low expectation teachers view achievement as low, they perceive that students are trying hard. This possibly suggests a view that intelligence is fixed, a perspective that researchers are increasingly showing is detrimental to student learning and achievement (Dweck 2006; Dweck et al. 2004). When teachers hold a view of intelligence as being fixed or innate, they tend to believe that they can have little effect on student learning: what students can learn is predetermined. On the other hand, teachers who have an incremental notion of intelligence believe that all children can learn, with appropriate support and opportunity to learn (Dweck 1999).
As I have already mentioned, students appear to be well aware of their teachers’ expectations and attitudes towards them, because they can provide specific examples and critical incidents that demonstrate their understanding of teacher messages (Weinstein 1993). It would seem possible, therefore, that students with high expectation teachers are aware of their teachers’ positive views, not only of their achievement, but also of their behaviour, interest and motivation in class. Moreover, these teachers view student home backgrounds as supportive of their learning. When students are consistently being given encouraging messages from their teachers, this may be one explanation for why student self-perception improved across a year in the classes of high expectation teachers (Rubie-Davies 2006), as outlined above. On the other hand, students with low expectation teachers may be aware of the very different messages that their teachers portray, which may affect their self-perceptions negatively rather than positively.

Taken together, the evidence that high and low expectation teachers can be identified, that their students’ achievement and self-perceptions appear to be affected by the classes in which they find themselves, and that high expectation teachers also view their students’ attitudes and attributes positively suggests there is a need to shift attention in teacher expectation investigations on to teacher difference, rather than focusing on student difference. It can be argued that the attitudes of different teachers influence the instructional and psychosocial environment and perhaps student outcomes. Hence, in considering expectation effects, the context of the teacher expectations needs also to be taken into account. Questions about the implications of teacher expectations, particularly in relation to teacher characteristics, are debates about equality in education, about enhancing student learning. In endeavouring to unravel the attributes of high expectation teachers, who make positive differences for students, the aim is to ensure high-quality teaching for all students.

**High and low expectation teachers at tertiary level**

My work has examined the conception of high and low expectation teachers at the primary school level. This work is relatively recent and, to my knowledge, has not yet been applied in a secondary school setting. However, one of my doctoral students has examined this idea in a tertiary setting in two Chinese universities (Li, forthcoming). Li identified high and low expectation teachers in foreign language classrooms at university, using hierarchical cluster analysis. Cluster analysis is a statistical method for grouping individuals together who share common traits, in this case, similar class-level expectations. Because this study was conducted in a university setting, this meant the fifty teachers in the study taught more than one class each. Indeed, on average, the teachers taught four classes each. One particularly interesting aspect of this study was that, when teachers had, respectively, high or low expectations for all the students in one class (approximately thirty students per class), they also held similarly high or low
expectations for all their classes. This suggests that teacher expectations can, indeed, be considered a teacher-level variable. At the beginning of the year, there was no difference in student achievement in English language across any of the classes ($M = 115.53$ in low expectation teachers’ classes, and $M = 116.84$ in high expectation teachers’ classes) in the university entrance examination, in which the highest possible score was 150. The mean teacher expectations were 2.17 (on a 9-point scale) for low expectation teachers, and 4.69 for high expectation teachers, for these first-year undergraduate students. The teachers predicted the score they thought each of their students would achieve in the final standardized examination, ranging from 1 equalling less than 430 to 9 equalling above 571, as a measure of their expectations. In this test, the possible range of scores is 220–710, and 430 represents a pass mark. By the end of the year, students with high expectation teachers scored significantly better than those with low expectation teachers ($M = 428.21$ in low expectation teachers’ classes, and $M = 452.19$ in high expectation teachers’ classes).

Li (forthcoming) also tested student perceptions of the class climate, using the adapted version of the College and University Classroom Environment Inventory (Nair and Fisher 1999, 2000). She found that student perceptions of the teacher–student relationship, innovation in the class, student cohesiveness, task orientation, cooperation, and autonomy significantly moderated the teacher expectation effects on later achievement. In the classes of high expectation teachers, student perceptions of a positive relationship with their teachers, of the classroom having an innovative approach and of there being clear task orientation positively moderated the effects of teacher expectations on student achievement. In contrast, in the classes of low expectation teachers, student perceptions of student cohesiveness, cooperation and autonomy all negatively moderated teachers’ expectation effects on student achievement. It seemed that, in this study, as in my one described earlier (Rubie-Davies 2006), student psychosocial beliefs could be predicted by teachers’ expectations. It was an interesting finding, in Li’s study, that the factors that moderated teachers’ expectations positively (enhancing the effect of expectations on student achievement) were teacher factors, whereas those that moderated the effects negatively were student factors. The study suggested that, in classes of high expectation teachers, in which students enjoy positive relationships with their teachers and appear to enjoy their teachers’ lessons (they view them as innovative and well-organized), they are more inclined to accept their teachers’ expectations and achieve at high levels. However, in classes of low expectation teachers, students may recognize their teachers’ expectations and, as a consequence, form closer relationships with their peers and distance themselves from their teachers: the lower the teachers’ expectations, the more students perceived high levels of student relationships (student cohesiveness) and cooperation, and, in classes where expectations were low, students made their own decisions about their learning (autonomy). These psychosocial beliefs moderated the teachers’ expectation effects. In other words, the more students perceived positive relationships with their peers and that they
had autonomy over their learning, the less effect the teachers’ low expectations had on their achievement. Arguably, at the tertiary level, students are not so reliant on teachers for their learning opportunities and so can take some control of their learning themselves.

The conception that some teachers have high or low expectations for all their students is a nascent and promising direction for research in teacher expectations. It extends the work of both Babad and Weinstein in demonstrating how teacher beliefs can moderate teacher expectation effects. Further, both my own studies and those of Li show that, when teachers have high or low expectations for all their students, these class-level expectations appear to have consequences both for student achievement and for student psychosocial beliefs. This is indicative of the importance of taking account of the classroom context when examining teacher expectations. That similar results have been found at the extremes of schooling – primary and tertiary classrooms – is very exciting, because this suggests that teacher-centred expectation effects may exist across all levels of schooling, including at the secondary level, although this has not yet been empirically tested. The work to date paves the way for future research in this area.

In the current chapter, I have focused on student achievement and self-beliefs that are associated with high and low expectation teachers, as well as some beliefs these teachers hold about their students’ attitudes. In the next chapter, I delve more deeply into high and low expectation teachers and specifically focus on the teacher beliefs and instructional practices that are associated with high and low expectation teachers. It is these beliefs and practices that possibly act as mechanisms for the teacher expectation effects demonstrated in the current chapter.
The previous chapter has shown that teacher expectations can be identified at the whole-class level, and that there seems to be a relationship between the class-level expectations of teachers and outcomes for students. Students whose teachers have high expectations for the whole class (high expectation teachers) appear to make positive gains, both academically and in terms of psychosocial development, as a result of being with those teachers. On the other hand, students with teachers who have low expectations for the whole class (low expectation teachers) show less positive improvement. However, for there to be differential outcomes in particular classrooms, there must be mechanisms that contribute to students’ positive academic achievement and psychosocial beliefs in one class and less positive academic and social increases in another. To determine what these mechanisms might be, I interviewed teachers (Rubie-Davies 2008) and also spent time in the classes of high and low expectation teachers (Rubie-Davies 2007), observing what was happening in their classrooms. In this chapter, I discuss findings from those interviews and observations, in relation to teacher beliefs, teacher instructional practices and class climate. I conclude with a review of intervention studies from the teacher expectation field, which sets the context for the discussion of my intervention study in the following chapter.

The beliefs of high and low expectation teachers

Studies of teacher beliefs enable a deeper understanding of teacher instructional practices, primarily because such beliefs affect the ways in which information about learners is encoded, how that information is remembered, and how the information is then utilized in making instructional decisions (Dusek 1985). When teachers have particular expectations for students, their expectations can lead them to deliver instruction that they think is appropriate, based on their pedagogical beliefs. Their pedagogical beliefs will, therefore, drive their instructional decision-making. As I illustrated earlier, when teachers believed that
low-achieving students were not capable of high-level thinking, they reported implementing quite different learning experiences for high and low achievers (Arabsolghar and Elkins 2001; Zohar et al. 2001).

Planning for instruction is the foundation of every child’s success, because planning and the decisions that teachers make regarding the ways in which learning opportunities are to be implemented directly affect the learning experiences to which children are then exposed. Beliefs at this level may have important relationships with student achievement, because they often determine opportunities for learning. Indeed, instructional planning is the point at which teacher beliefs about learning and teacher expectations for students are translated into opportunities to learn.

One means by which teachers can plan and deliver disparate learning opportunities to students is through ability grouping. One important component of any form of grouping is that it often results in the provision of differential learning opportunities to learn. Teachers who choose to group students by ability often feel that, in this way, student needs can be more effectively met, and the self-esteem of low-achieving students can be preserved. Some researchers, however, believe that, rather than improving the self-esteem of low-achieving children, when placed in groups together they are publicly labelled and categorized (Oakes 1988; Gamoran 1992). Grouping is a powerful means of delivering differential learning opportunities and can be damaging for low achievers. However, average achievers have also been shown to benefit from working in heterogeneous, but not homogeneous, groups (Fuligni et al. 1995).

To examine teacher beliefs related to grouping, the high and low expectation teachers identified in the previous chapter were asked questions designed to explore how they believed learning opportunities should be structured for high and low achievers. Questions were framed around the ways that teachers planned to promote the success of children at differing achievement levels, and, therefore, the questions focused on how the teachers grouped students for instruction, how they catered for their high and low achievers, which strategies were effective for working with a range of achievement within one class, and how the teachers promoted student engagement and success.

The teachers were sent the interview schedule a week before the planned interviews, so that they could give considered responses to the questions. All interviews were transcribed, and the teachers checked the transcriptions for accuracy. I read through the transcriptions twice initially, to gain some sense of consistent ideas being expressed. The qualitative data from the transcriptions were then initially coded manually in relation to each group of questions associated with a common theme. A next step involved the data being coded, clustered and summarized, through a process of selecting and teasing out information that supported the criteria set out under the purposes of the study. I used Dey’s procedures (1993) to examine the participants’ responses. This consisted of generating a list of key ideas, words, phrases, and verbatim quotations; using ideas to formulate categories and placing ideas and quotations into appropriate
categories; examining the contents of each category for subtopics; and selecting the most frequent and most useful quotations and illustrations for the various ideas. The data were also entered into NVivo as a means of cross-validating the initial coding. A colleague also coded a subset of the data as a further reliability check. Entry of the data into NVivo enabled me to conduct pattern searches within the program to substantiate impressions that particular words or phrases were used proportionately more often by one group of teachers than another. For example, I discovered, through using the pattern search, that, whereas high expectation teachers mentioned providing challenging and exciting activities for low achievers, neither expression was used at all by the low expectation teachers. Entry of the data into NVivo also allowed me to search for confirming and disconfirming evidence in relation to the themes that I had established.

The teacher interviews revealed some interesting self-reported differences between high and low expectation teachers, primarily in relation to grouping and the kinds of activities provided for high and low achievers. The high expectation teachers seemed to be much more aware of structuring their classrooms so that differentiation between high and low achievers and the kinds of learning experiences they engaged in was minimized. The high expectation teachers also frequently spoke about students setting their own goals and working towards achieving these, with teachers acting as guides and facilitators for student achievement of their goals. This may be because the high expectation teachers allowed students to choose their own reading and mathematics activities, and so they provided their students with some autonomy over, and responsibility for, their learning. The high expectation teachers viewed low-achieving students, not so much as lacking in ability, as lacking in motivation. They were of the opinion that all students needed to be challenged and to enjoy learning, and so one way they achieved this was by enabling students to make some choices about the learning experiences in which they took part. The high expectation teachers believed that providing a range of stimulating, thought-provoking activities for students motivated them to learn and ensured that they were engaged in the learning process. The teachers were also mindful of student interests and incorporated these into the available activities, thus ensuring even higher levels of motivation and engagement in the learning experiences. On the other hand, the low expectation teachers designed the learning experiences for each separate group of their students themselves and spoke about the need to break learning down into what they considered to be incremental or achievable steps for each achievement group of students. The low expectation teachers appeared to take more control of the learning opportunities to which their students were exposed, and so it may follow that they also felt more responsibility to ensure that the learning tasks were organized in a linear fashion for their students. Perhaps as a result of beliefs that the teacher needed to make the decisions about student learning experiences, the low expectation teachers also reported spending more time with low-achieving students and leaving high achievers to work independently. This practice equates with reports in Weinstein’s work (2002),
in which students identified low achievers as those on whom teachers kept a close watch and whom they directed more frequently. Overall, the high expectation teachers appeared to adopt a more facilitative role in teaching, whereas the low expectation teachers were more directive.

Because the high expectation teachers seemed to assume a more facilitative role, it is probably not surprising that they also reported monitoring their students’ progress far more frequently than did the low expectation teachers. This was probably because of the autonomy that students were given: the high expectation teachers were not assigning particular activities for different groups of students, and so they monitored carefully how the students were doing. Further, the teachers were setting individual goals with students. As a result, the students were making rapid progress (evidenced by the large gains they made, as outlined in the previous chapter), and they could move forward at their own individual pace. The low expectation teachers were more conspicuously involved in the teaching and assigning of different tasks to each group of students. There was not so much freedom for students to make individual progress, as they were constrained by the learning opportunities presented. Thus, monitoring occurred less frequently and involved testing a whole group at a time to decide when that group could move to a new level. There was little movement between groups in these classes.

One final area in which there seemed to be differences in the classrooms of high and low expectation teachers was in the class climate that resulted from the ways in which learning experiences were structured. Teachers were not directly asked about class climate, but the high expectation teachers did report aspects of class climate, such as encouraging all students to work together. The classroom observations that I will describe below also led me to conclude that the class climate seemed to be very different in the classes of the high and low expectation teachers. These differences warrant a separate section in this chapter, as the findings arose from both the interviews and the classroom observations. Chapters 8, 10 and 12 also provide far more detail about the differences in beliefs between the high and low expectation teachers, along with illustrative quotations. In those chapters, I will provide details about how the high and low expectation teachers operationalized their beliefs and why I believe they made those choices. The three overarching areas of difference – grouping and learning activities; the promotion of motivation, engagement, student autonomy, evaluation and teacher feedback; and enhancing the class climate – formed the basis of the intervention study discussed in the next chapter, Chapter 7.

First, however, I would like to present some evidence from the classroom observations of differences between high and low expectation teachers in their instructional practices. Several of these strategies were incorporated into the intervention because, although they were practices of the high expectation teachers, they also reflected evidence of well-researched, effective teaching practice (Taylor et al. 2000; Hall and Harding 2003; Bohn et al. 2004; Topping...
and Ferguson 2005) and so served as a timely reminder of their significance for student learning during the intervention study.

**The instructional practices of high and low expectation teachers**

Six lessons in reading and mathematics were observed in each classroom. The first 30 minutes of a lesson were observed and coded in each case, because the beginning of a lesson is likely to be the part in which teachers devote most time to instructing students. In total, 6 hours of lessons were observed in each class. The observation schedule was based on one developed by Bond et al. (2000). The interactions of teachers with students and everything that the teacher said during each lesson were coded by trained research assistants, who were only told that I was interested in how teachers taught reading and mathematics; they did not know which teachers had been identified as high and low expectation teachers, nor what the aim of the project was. Two research assistants were present during each lesson, one coding and one audio-recording the lesson and making notes of anything significant that occurred during each lesson. I also transcribed everything each teacher said during each lesson, which enabled me to go back over the coding for each lesson to ensure that each interaction had been correctly coded. Prior to conducting the actual observations, the research assistants were trained using videos of classrooms of teachers not involved in the project, and all interactions were coded and then checked alongside my own coding. Any disagreements were discussed, so that the final training video resulted in an agreement rate for all coding that was about 95 per cent. Once the research assistants had completed all their actual class observations, their coding was compared with my own coding from the transcripts; the agreement rate was still very high (above 90 per cent). Again, all discrepancies were discussed, so that I could understand why the research assistants had coded a particular interaction differently from me. The major areas of difference between the observed high and low expectation teachers related to their teaching statements, the feedback they gave to students, their questioning, behaviour management and procedural directions.¹

**Teaching statements**

Overall, the high expectation teachers made far more statements related to teaching new concepts than did the low expectation teachers. This was mainly in the areas of orienting students to the lesson and linking the new concepts with prior knowledge. For example, while engendering student focus during a reading lesson, a high expectation teacher said: ‘This story is called “Homespun”. With that title what do you think it is going to be about?’ That way, she could check on what the students already knew and also focus them on the task at hand. She spent considerable time introducing the students to the story and ensuring that the students understood concepts that would be introduced in the book they
were to read. In stark contrast, the introduction of one low expectation teacher in reading was: ‘Here’s your reading book and worksheet for today. Off you go and read it and then do your worksheet’. The book was about budgerigars; that was the title, and several students clearly could not read the title and did not know what a budgerigar was. Perhaps as a consequence, they appeared to struggle with the text.

The high expectation teachers often linked new concepts with prior knowledge, for example: ‘Remember we were talking about symmetry the other day and learning about rotation.’ The teacher then went on to discuss what the students had learned previously in relation to the topic, before introducing a new concept related to symmetry. Practices such as these have been identified in the effective teaching literature (Berliner 2004; Topping and Ferguson 2005) as something that expert teachers do because such statements provide a framework for student learning, something to link the new concepts to. The high expectation teachers took time to orient children to the topic of the lesson and linked this to previous lessons and to student prior knowledge, practices that have been identified by other researchers as improving student learning of new concepts (Berliner 2004; Topping and Ferguson 2005; Wray et al. 2000). This did not apply to the low expectation teachers, who made comparatively few of these statements. The students of the high expectation teachers were provided with scaffolding for their learning. Their teachers were ensuring that they had a clear understanding of the concepts being introduced, before the students proceeded to their activities. Because the low expectation teachers made far fewer teaching statements, their students received more limited support for their learning.

Feedback

High expectation teachers also provided their students with more feedback than did low expectation teachers. Further, the feedback that low expectation teachers did give tended to be either praise or criticism; for example, ‘Well done’, or ‘Look, he hasn’t got his ears in the right place, and they aren’t working’ (said to a child the teacher deemed not to be listening), or ‘No, you don’t do it like that. You should know that by now.’ High expectation teachers often provided students with feedback designed to reinforce their learning; for example, ‘Well done; it was quite a long story but you listened really well and worked out what a noodle head might be’ and ‘Lovely way he said “screamed”. It sounded like screaming without yelling it out.’ Similarly, high expectation teachers used feedback to provide direction related to their learning; for example, ‘Nice addition and I like the way you have kept all your numbers in straight columns so you didn’t get the tens and hundreds muddled.’ For the students of the high expectation teachers, this meant that they were regularly being given information about what they had already achieved and what they needed to do subsequently to attain the next skill, or to improve on what they were already achieving.
For the students of high expectation teachers, this may have had various consequences. The students would have been aware of the progress that they were making and would have understood the next steps in their learning. A further corollary would have been that the students were setting task mastery goals rather than performance goals, so that the focus was on their own learning rather than on comparative performance with others. Researchers in fields outside expectancy research have reported similar findings. Hattie (2003a) showed that feedback was the most important teacher-located instructional practice in improving student learning \( (d = 0.73) \), and other research (Bohn et al. 2004; Topping and Ferguson 2005) has confirmed the importance of teacher feedback as an instrument for improving student progress.

**Questioning**

High expectation teachers asked far more questions than low expectation teachers, but also asked many more open questions. I define an open question as one that does not have a right or wrong answer; such questions are designed to extend or enhance students’ thinking, requiring them to think more deeply. In contrast, closed questions are normally based on facts. Indeed, all the questions of low expectation teachers were in that vein; for example, ‘What’s the Milky Way?’ and ‘What’s the formula for finding area, Celine?’ In contrast, the high expectation teachers were far more likely to ask open questions; for example, ‘Why do you think the old lady left the birthday party early?’ and ‘What do you think might happen to the two brothers in the next chapter?’

Because the low expectation teachers asked few questions, their students were being given fewer opportunities to recall information or to think beyond the facts presented in their lessons. High expectation teachers did, at times, ask closed questions, but their students were also frequently being asked to make inferences, to think beyond the information they already had. Closed questions were more likely to be asked to check student understanding; for example, ‘Show me the line of symmetry in this design, Harry.’ Hence, the students’ abilities to question, discuss and synthesize information were more frequently being developed in the classes of high expectation teachers than was true for the students of low expectation teachers. Research in the teacher expectation field has not generally analysed teacher questioning so closely, but other studies have identified the greater use of open questions by effective teachers as one means of enhancing students’ levels of cognitive functioning (Taylor et al. 2000; NICHD Early Child Care Research Network 2005; Topping and Ferguson 2005).

I was also interested in what teachers did when students had answered a question. Mostly, students responded correctly. In these instances, high expectation teachers were far more likely than low expectation teachers to praise the students. They also often questioned students further, which tended to be a prompt for students to think even more deeply about their response; for example, ‘And why do you say that? What clues are there in the story?’ At times, high
expectation teachers would provide students with feedback about their answers as well; for example, ‘That’s a very good answer. Well done. You obviously thought carefully about why the farmer needed to cut down his trees.’ In contrast, when students got the wrong answer or were unable to respond to a low expectation teacher’s question, the teacher normally simply told students the correct answer or dismissed the first student by immediately referring the question to another student; for example, ‘No, that’s wrong. Sara, can you answer? What number is this?’ Hence, the low expectation teachers did not provide the scaffolding evident in the classes of high expectation teachers.

**Behaviour management**

Statements that teachers made in relation to behaviour management were coded as either preventive or reactive statements. Preventive statements are those designed to prevent poor behaviour from occurring, whereas reactive statements are teacher reactions to student behaviour. In each case, the statements could be either positive or negative. Overall, the high expectation teachers were much more likely than the low expectation teachers to manage behaviour by using preventive rather than reactive statements, and they were far more positive than the low expectation teachers in their handling of behaviour. Both groups, however, managed behaviour negatively in similar proportions. Examples of positive preventive comments from a high expectation teacher are: ‘What lovely quiet girls over there and these boys down here’, said immediately students had moved to their desks, and ‘I’m going to see who the best group is.’ In contrast, this next statement is a negative preventive management statement from a low expectation teacher: ‘Any more noise from you lot and you’ll be in at lunchtime.’ This differs, in turn, from the following examples of reactive statements – a positive reactive statement made by a high expectation teacher: ‘Ah, that red table you’re remembering your quiet voices, well done, red table’ (said when several other students were noisy); a negative reactive statement from a high expectation teacher: ‘Ah, Alexander, I’m really not happy, not at all’; and this negative reactive statement from a low expectation teacher: ‘Okay, you have just lost your lunchtime.’ It has been found previously that effective teachers use positive techniques to manage student behaviour more frequently than do less effective teachers (Bohn et al. 2004; NICHD Early Child Care Research Network 2005; Topping and Ferguson 2005). For the students in my study, this would have translated into a more positive classroom environment for the students of high expectation teachers than for the students of low expectation teachers. Even when disruptive behaviour did occur in the classrooms of high expectation teachers, they were more likely to react positively than they were to make a negative statement to students. This was not true for the low expectation teachers. Their students would have experienced a more negative classroom environment, because their teachers, proportionately to positive statements, responded negatively to student behaviour they considered inappropriate.
The ways in which positive versus negative classroom management might contribute to the class climate will be further discussed in Chapter 10.

**Procedural directions**

The only type of statement in which low expectation teachers exceeded the high expectation teachers was in the number of procedural directions they used. The literature points to effective teachers clearly establishing routines early in the year; students are then given ownership of responding to such routines without the need for teacher reminders (Berliner 2004; Bohn et al. 2004; Topping and Ferguson 2005). The low expectation teachers were constantly reminding the students of the expected procedures, even though the observations took place in the latter part of the academic year; for example, ‘I’m looking for people with their hands up’ and ‘Make sure you rule off once you have finished your maths.’ One further interesting finding was that, overall, the low expectation teachers made more procedural statements during their lesson than they did teaching statements. This was not the case for the high expectation teachers. Brophy and Good (1986) have shown that less effective teachers spend more classroom time organizing students than do more effective teachers.

In summary, the high and low expectation teachers taught quite differently, and this may be one explanation for why the students of high expectation teachers made such large academic gains over the year of the study. However, one important aspect of their teaching, revealed in some of the examples above, is that the psychosocial environment created by high expectation teachers was likely to be more positive and caring than that found in the classrooms of the low expectation teachers. The interviews and classroom observations both suggested it was important to high expectation teachers to create a positive classroom environment. In the next section of this chapter, I draw together the evidence from the teacher interviews and classroom observations to highlight differences in the classroom climate of high and low expectation teachers.

**The class climate of high and low expectation teachers**

When compared with the extensive literature related to the instructional environment of the classroom, that related to the psychosocial environment is far less voluminous and less well established. Within the area of teacher expectations, even fewer researchers have investigated links between teachers’ expectations and the classroom climate (see Babad 2009 and Weinstein 2002 for exceptions). This is most likely because the major focus of teacher expectation research has been on teachers’ expectations for individual students and interactions with them, rather than on examining teacher difference as potentially resulting in differing class climates. I use the psychosocial environment as indicative of the class climate. The class climate is described by Babad (2009) as a summary of the global psychosocial, emotional and management aspects of
the classroom. I am focusing primarily on the psychosocial and emotional components. Studying the class climate is important, because research suggests that the relationships in the classroom, mostly between teacher and students, but also between student and student, contribute to student motivation and, therefore, achievement (Noddings 1992). In one study, Wentzel (1997) tracked students from elementary school into middle school. She wanted to see whether or not perceptions of teacher care influenced student success in middle school and found convincing evidence that students were more motivated and more likely to engage fully in classroom activities when they felt cared for by their teachers. Feeling supported and valued by teachers predicted student motivation, effort in academic tasks, the pursuit of positive social goals, and acceptance of responsibility for student actions. Further, perceptions of teacher care also predicted student achievement.

In my own work, differences in the class climates of high and low expectation teachers can also be identified from the teacher beliefs and instructional practices presented above. These will be further expanded upon in Chapter 10, but I will also describe them very briefly here.

Because students of high expectation teachers were not strictly ability-grouped, this meant that all students had the opportunity to work with each other, and friendships were developed across the classroom, rather than being confined to the ability groups in which students were placed. This meant there was more sense of community in the classes of high expectation teachers. Collaboration and cooperation appeared high. Also, because students were not strictly ability-grouped in the classes of high expectation teachers, ability differences were less salient than they were in the classrooms of low expectation teachers, and this may have served to improve student self-beliefs.

I also developed a perception that the students in the classes of high expectation teachers enjoyed school more than those with low expectation teachers, because they had some autonomy over the activities they completed, they had clear learning goals, the teachers provided clear feedback in relation to their goals, and often activities were centred on their interests. Students seemed motivated and keen to learn in these classrooms. Further, the high expectation teachers were more positive than the low expectation teachers, and this may have led to a more harmonious and conducive psychosocial classroom environment. Inappropriate behaviour was handled more positively in the classrooms of high expectation teachers than it was by low expectation teachers, who frequently admonished their students.

In summary, teachers who have high expectations for all their students’ learning appear to have different beliefs about how instruction should be delivered to their students, and they also interact differently with their students when compared with their low expectation counterparts. The students in the classes of these contrasting types of teacher appear to benefit or be disadvantaged, depending on the type of teacher with whom they are placed. The contrasting instructional environments for high and low expectation teachers that I have
presented in this chapter provide clues as to the teacher practices and beliefs that led to the large achievement gains found for the students in the classrooms of high expectation teachers. That is, they likely indicate mechanisms for the teacher expectation effects.

Compared with the high expectation teachers, the low expectation teachers spent less time instructing their students, asked them fewer questions, and provided less of a framework for learning than did the high expectation teachers. As well as this, from their self-report evidence, they appeared to provide quite separate and differentiated opportunities to learn for their high- and low-achieving students, which the high expectation teachers did not do.

The psychosocial climate in the classrooms of the high and low expectation teachers also differed. The low expectation teachers managed their students’ behaviour less positively than the high expectation teachers. Indeed, at times, they were quite negative towards their students. The high expectation teachers also appeared to support their students more than the low expectation teachers did: they provided their students with a lot of feedback about their learning, they rarely criticized individuals, and they supported students when they were unsure of the answers to questions. It is possible that the high expectation teachers were seen as being more caring towards their students, and that this contributed to a more supportive psychosocial climate in their classrooms. Moreover, it seemed from the self-report evidence of the high expectation teachers that they provided their high- and low-achieving students with more opportunities to work together than did the low expectation teachers, whose high- and low-achieving students appeared to work in separate ability groups more frequently. This may also have contributed to a differing psychosocial climate in the classrooms of these types of teacher, with the students in the classes of the high expectation teachers being more used to working with a range of their peers and to working more as a cooperative whole, whereas the students with the low expectation teachers seemed to work in differentiated groups more frequently.

It was suggested earlier that the high expectation teachers provided a more facilitative approach to their teaching, whereas the low expectation teachers provided a more directive approach. This resulted in different opportunities to learn for students, because of their teachers’ instructional practices. Ultimately, this seemed to have important consequences for student achievement. The differing instructional environments created by the teachers appeared to be related to their need for control. The low expectation teachers more directly controlled their students and the classroom environment, whereas the high expectation teachers gave their students more choices in their learning. Although teacher control and student choice have previously been identified in the literature as contributing to student outcomes (Cooper and Good 1983; Flowerday and Schraw 2000; Reeve and Jang 2006), this has not previously been identified in relation to class-level expectations of teachers, and, hence, the ways in which a facilitative classroom environment is promoted and fostered among
high expectation teachers is worthy of further investigation as a means of enhancing student outcomes.

**Intervention studies in the teacher expectation field**

The teacher behaviours and beliefs described and exhibited by high expectation teachers formed the basis for an intervention study, the Teacher Expectation Project, which is described in Chapter 7. However, at this point, it seems useful for me to review intervention studies from the teacher expectation field, so that the reader will understand how the Teacher Expectation Project differs from other studies. In that way, its unique contribution to the literature will be more readily understood.

As described in Chapter 1, the Pygmalion experiment (Rosenthal and Jacobson 1968) was the first-ever teacher expectation intervention. Because Pygmalion is extensively described in Chapter 1, I will not review it further here, but it does need to be mentioned, because it was the foundational study for the field, and it was experimental. As I also described earlier, the Pygmalion study resulted in various replication attempts (e.g. Claiborn 1969; Jose and Cody 1971); therefore, because they were very similar in design to the original study, I am going to concentrate here on presenting studies that have attempted to change teachers’ or students’ expectations using methodologies that were different from those of the original study.

Rappaport and Rappaport (1975) conducted an early intervention study aimed at changing both teachers’ and students’ expectations. They included forty-five African American, low-socioeconomic children aged 5–6 years. All students had low scores on a standardized reading test. The students were randomly assigned to three experimental groups and two control groups, one of which did not participate at all in the interactions described next. All other groups (one control and three experimental) met individually with the first author twice a week, for 30 minutes, over 12 weeks (12 hours in total). The control-group students met and completed a perceptual-motor task with the first author, but were not given any of the feedback the three experimental groups were given (described below). The experimental students completed a range of perceptual-motor problems, which were the same tasks completed by the control group. Each experimental group was given different feedback. In the first experimental group, each week, the teachers were provided with very positive feedback about that experimental group’s motivation, ability, and success in completing the tasks. In the second experimental group, while the experimental students completed their tasks, the experimenter praised their advanced achievement and tried to make the students feel as though they were particularly talented. In the third experimental group, both the students and the teacher received feedback about the students’ motivation, ability and success at the tasks, and at least once, over the twelve weeks, each student in the third experimental group was praised to the teacher, in the classroom, and with the student present.
The post-test scores of the three experimental groups were well above those of both control groups, showing that the increase in scores was not simply due to the opportunity to interact with the experimenter. The experimental groups increased their scores in all three experimental conditions (praise to the teacher, first experimental group; student praise, second experimental group; praise to the teacher with student present, third experimental group). However, the increase in reading scores was greater for the expectations experimentally induced in the student (second experimental group) rather than in the teacher (first experimental group). The students also made gains in the third experimental group, in which the student was praised to the teacher, as well as both student and teacher being given feedback separately. The study suggested that manipulating the students’ expectations might be more successful in improving student achievement than attempting to change teachers’ expectations, which, at the time of this experiment, had often been shown to be resistant to change.

Kerman (1979) proposed that, because teachers favoured high achievers in their interactions, low achievers simply tuned out over time. Low achievers believed that they would not be asked to contribute to discussions and so gave up trying. Kerman used fifteen of the behaviours identified by other researchers (e.g. Brophy and Good 1970a) as those that favoured high achievers and developed a three-year programme in which, over time, teachers were trained to interact with students equitably in each of the broad areas of response opportunities, feedback and personal regard. The focus was on different types of response opportunity in the first year, on feedback in the second year and on personal regard in the third year. More than 700 teachers were involved in the project and were randomly assigned to either control or intervention groups. The intervention group was trained to interact equitably with students (e.g. in terms of equitable distribution, praise, and personal interest and compliments), concentrating on developing one skill at a time. They then observed each other in relation to the skill being cultivated at the time and recorded the interactions with targeted high and low achievers, which the observed teacher could review. In that way, teachers could see their progress in terms of altering their interactions. The project showed large academic gains for the low achievers and reduced behavioural problems over the three years when compared with the control group.

Good and Brophy (1974) proposed that, if they presented teachers with observational data from the teachers’ own classrooms and interviewed them about the findings, the teachers would then change their interaction patterns. Good and Brophy’s view was that teachers do not deliberately discriminate in their interactions with high and low expectation students. Instead, teachers are unaware of their discriminatory behaviour, but fall into a pattern of interacting inappropriately with some students, without being conscious of their behaviour. The observations concentrated on two types of student: the low-participant group (students whom the teachers largely ignored and who rarely participated in class discussions) and the extension group (students whom teachers rarely gave
a second opportunity to answer questions after they had given an incorrect response – they were not given extension opportunities). On the whole, three or four students in each of the eight classes in the study were identified as belonging to either the low-participant or the extension group. When recording the teacher interactions, a contrast group for both the low-participant group and the extension group was identified, and teacher interactions with all four groups were recorded. In that way, the researchers were able to show that the teachers were interacting appropriately with some students, and how their interactions differed with the low-participant and extension groups. When teachers were interviewed about their data, they were originally unable to identify why students had been placed in particular groups. When they realized, they agreed to try to interact more with the low-participant group and to provide the extension group with additional opportunities to answer questions when their initial response was incorrect. Three months later, the data showed that teachers had made substantial changes to their targeted interactions with the two groups, although the teachers did not change their expectations of the students as a result of their changed interactions. They were more positive with the low-participant group and more frequently asked them questions. However, with the extension group, although the teachers did not give up so easily when the students could not answer a question, they nevertheless still criticized them more often than other students.

In a further study at seventh grade that employed teacher feedback as the intervention, Babad (1990) gathered data related to teacher differential learning and emotional support for high and low expectation students, from teachers and students in the same classrooms. Both teachers and students agreed that teachers provided more learning support for low achievers than for high achievers, but students accepted this differentiation, because they believed that the low achievers needed additional support. However, whereas teachers reported providing more emotional support to low achievers, students reported that teachers favoured high expectation students in their emotional support. There were only twelve teachers in the original study, but four of them were dropped before the intervention was planned, because they were very resistant to feedback. Only four teachers were willing to accept the discrepancy in teacher versus student ratings in relation to emotional support. These teachers were interviewed and provided with a consultation session. Three months later, the data from the student and teacher measures were again collected. No differences were found for changes in teacher learning support for high and low expectation students. For emotional support, though, there was a trend for teachers to be more emotionally supportive of low expectation students, as rated by both teachers and students, but this change was not significant for either teachers or students. Hence, overall, most teachers did not accept that they provided more emotional support to high achievers; they reported being more supportive of low achievers. Of the few who were willing to change, they found it difficult to redistribute their emotional support towards low achievers, because they reported already providing high levels of support for the low expectation students.
before the intervention, and so considered it problematic to provide them with even more support. The teachers reported after three months that they had increased their emotional support to high expectation students, not to low expectation students. In a very similar follow-up study, Babad (1995) also found that providing teachers with feedback about their differential emotional support of students did not result in change.

Proctor (1984) provided a teacher expectation model that conceptualized improvements at the school level. He proposed that the school climate had a large effect on teacher expectations and behaviour. He combined teacher expectations and teacher efficacy in the model, arguing that these two variables were highly correlated. Teacher expectations were hypothesized to influence the instructional input, instructional feedback, and communications with students, which in turn influenced student learning opportunities, the provision of academic learning time, curriculum coverage, and student self-expectations. Ultimately, the school and teacher effects influenced student achievement. Proctor also argued that student characteristics would influence teacher expectations and school climate – but this would occur more often in some schools than in others, because it was not student characteristics per se that ultimately affected student achievement, but rather the school’s reaction to the student characteristics. He proposed that his model was useful as a tool for school improvement, focusing as it did on both school- and class-level factors and being centred on expectations. He also suggested that the model would be most useful for improving school assessments, planning, and delivery and for staff professional development. The model was to be used in Connecticut schools as a framework for enhancing school and teacher effectiveness, but was theoretical in Proctor’s paper; that is, he did not provide any empirical data in support of the model.

A further intervention study (Weinstein et al. 1991) involved more than simply providing feedback to teachers about their practices and measuring subsequent change in teacher behaviour. Weinstein and her colleagues recruited six ninth-grade teachers from one high school, and the project focused on the ninth-grade low-achieving students entering the school. All the students were in their school’s lowest track, which was considered to be for students who would never achieve at high enough levels to attend college ($N = 158$ students). Any changes in these students as a result of the intervention were measured against the achievement of two similar cohorts from the previous two years ($N = 154$ students). The crux of the intervention was a focus on altering the class and school environments to raise teachers’ expectations and to increase student motivation. The intervention targeted the curriculum that was being delivered to the students; how students were grouped; the ways in which teachers evaluated students; how they motivated them; promotion of student autonomy; and improvement in class, parent and school relationships. The teachers, administrators and researchers met for weekly planning sessions, either as a whole or in smaller groups. There, they planned the intervention practices and evaluated changes the teachers had made in their classrooms. Because of the complexity
of the changes across the eight areas identified above, the teachers introduced change gradually. None reported implementing changes in all areas, and some believed that they had been more successful in making changes than did others.

At the end of the first year of the intervention, there was a trend for the teachers to have increased their positive teacher expectation behaviours, but this was not statistically significant. However, at the beginning of the project, teachers focused on student deficits, whereas, by the end of the first year, they spoke more about the aptitudes of their students. Teachers also seemed to believe they could make a positive difference to student academic and social outcomes. In the second year of the project, the administrators agreed to disestablish non-college-bound tracks and to enable the low-achieving students to be integrated into classes with average-achieving students. All students were also able to select an advanced placement English class, on condition that they attend each day and complete all assigned tasks. By the end of the first year of the project, the intervention students showed improved grades in both English and history and enhanced grade point averages (GPAs) when compared with the earlier cohorts of students (the control group). Further, far fewer members of the intervention group were referred for disciplinary problems by the end of the first year compared with the non-participant groups from previous years. Unfortunately, though, once the students moved to non-project teachers in the following year, they did not maintain their achievement advantage of the previous year. Nevertheless, this study was the first to attempt to translate the contextual findings from the expectancy literature to an actual, rather than theorized, attempt at school change.

My intervention study, the Teacher Expectation Project, also has a very complex design. It focuses on three overarching areas (grouping and learning experiences; class climate; and motivation, engagement, student autonomy, evaluation and teacher feedback), as mentioned earlier, which were the focus of teacher change among the intervention group. The project is also a much larger project than that of Weinstein and her colleagues (1991), involving twelve schools and eighty-three teachers. Indeed, the Teacher Expectation Project is the first large-scale intervention project designed to raise teachers’ expectations for all students. I will describe it in detail in the next chapter.

Note

1 Some of the information in this section of the chapter has been taken from Rubie-Davies, C. M. (2007) ‘Classroom interactions: exploring the practices of high and low expectation teachers’, British Journal of Educational Psychology, 77: 289–306, with the permission of the British Psychological Society.
The differences in the instructional practices and beliefs of high and low expectation teachers described in Chapter 6 formed the basis for the intervention study that I discuss in this chapter. When students were with high expectation teachers, this appeared to make a huge difference to student learning over one year, and so it was worth investigating whether teachers could be taught the practices and beliefs of high expectation teachers, such that they, too, might have increased learning gains for the students in their classes. These ideas became the genesis for the Teacher Expectation Project (www.education.auckland.ac.nz/uoa/teacher-expectation).

One of the substantive differences between high and low expectation teachers was that the high expectation teachers adopted a facilitative approach: they set up an exciting and challenging learning environment, but provided all students with autonomy, while facilitating their development as self-directed learners through goal setting. On the other hand, the low expectation teachers kept much tighter control of their students, assuming a more directive approach. That is, they made all the decisions for students about who they would work with, what activities they would work on, when they would complete each task, how it would be completed, and so on. Students had little choice, and the activities of the high achievers were quite different from those of the low achievers. These are practices known to exacerbate differences between high and low achievers. What was especially exciting about these findings was that Weinstein (2002) had very similar findings for her low and high differentiating teachers, as I outlined in Chapter 4. Hence, in two very different contexts, the United States and New Zealand, the practices and beliefs of two types of teacher appeared to moderate the expectation effects, resulting in positive benefits for learners in the classes of low differentiating teachers in the United States and of high expectation teachers in New Zealand – and, further, their practices and beliefs were very alike.

The Teacher Expectation Project involved Year 4–8 students (8–12 year olds), despite the fact that many of my previous studies had involved younger students. Students in the early years (5–7 year olds) would be too young to test meaningfully in order to measure the effect of the intervention; this was because
A primary measurement of the effectiveness of the intervention was to be student academic and psychosocial outcomes. In New Zealand, there is no standardized testing of students in the early years. Further, the responses of young children to questionnaire items have been shown to be less reliable than those of older students (Rubie-Davies and Hattie 2012). Although I could have examined effects of the intervention solely on teacher change, unless teacher changes were having positive effects on student outcomes, then, as far as I was concerned, the intervention would not have been a success. It has been increasingly recognized that the effectiveness of teacher professional development needs to be measured in terms of student outcomes (Timperley 2008).

The Teacher Expectation Project is a three-year project and has a complex design. I will describe the entire project, because this provides useful information for putting the pieces together, but this book reports the results of the first year of the project only. At the time of writing this book, the third and final year of the project had just been completed, but results from the second year of the project were still being entered in preparation for data analysis. We had such a large volume of data (an excellent problem to have!) that it took much longer to enter than had been originally planned. The project involves a team of ten researchers, with different roles in the project: I am the director of the project, and there is also a principal investigator, a project manager, four senior researchers, a data manager and two research assistants. We have also brought in a statistical expert for some initial analyses. Clearly, this is a team project, and I therefore acknowledge the work of my colleagues in everything that I report below.

**Design of the Teacher Expectation Project**

The schools in the project are mostly from one suburban area of a city in New Zealand. This area was chosen because it had the broadest socioeconomic range in that particular city, and I wanted to include schools from low, mid-range and high socioeconomic areas. I contacted principals and gained approval for twelve schools to be involved. Originally, ninety teachers volunteered to be part of the study, although, as is inevitable for a longitudinal study, some left, even during the first year of the project, because of retirement, leaving their current school or personal reasons. This left eighty-four teachers and their students, approximately 2,500, for whom I will report some initial findings later in this chapter. The teachers were randomly assigned, within their schools, to either the control or the intervention group, such that forty-three teachers were in the intervention group, and forty-one teachers were in the control group. Although there was a risk of contamination by operationalizing the random assignment within schools, (1) I believe that the intervention was complex and would not easily be taught to control teachers; (2) one condition of being part of the intervention was that the teachers agreed not to pass on information about the intervention during the first year of the project; (3) in the second year of the
A teacher expectation intervention

project, the control teachers would also be taught the intervention; (4) I did not believe that principals would so readily agree to being part of the project if there was not the possibility of some immediate benefits for their teachers; and (5) control-group teachers were all engaged in their school’s regular professional development programme. On this last point, all primary school teachers in New Zealand take part in some form of professional development each year, and so all the control-group teachers were involved in ongoing development; for example, some control-group teachers were involved in an intensive programme on assessment for learning, and others were taking part in a literacy programme.

We began collecting baseline data two weeks after the school year began (February, in New Zealand) and before the intervention started. The period immediately after the first two weeks was chosen because of Raudenbush’s meta-analysis (1984), which showed that teachers formed their expectations within the first two weeks of school, and, after that period, their expectations could not be experimentally induced. In other words, after just two weeks of school, experimenters were not able to suggest that teachers could expect great things from randomly selected children and have teachers believe them; teachers had formed their own expectations for their students by that stage. Based on the research, I could anticipate that, within two weeks of school, teachers had had sufficient time to form preliminary impressions of students and to form their expectations for them. It was predicted that the intervention would result in changes in student achievement and, possibly, some changes in student and teacher psychosocial beliefs, and, hence, I describe the instruments that we used to measure change below.

Teacher measures

Our beginning-of-year data collection involved teachers completing their expectations for each student’s reading and mathematics achievement for the end of the year and a teacher psychosocial measure. The scale described in Chapter 5 was used to measure teachers’ expectations, whereby teachers rated each of their students on the level they expected them to achieve by the end of the year, on a scale from very much below average to very much above average. The psychosocial questionnaire was designed to measure teachers’ motivation, teaching efficacy, and goal orientation (whether they favoured performance or mastery goals). The scales used were: Martin’s Motivation and Engagement Scale (MES–W) (Martin 2010a), the Teacher Self-Efficacy Scale (TSES) (Tschannen-Moran and Woolfolk Hoy 2001) and the Patterns of Adaptive Learning Scale (PALS) (Midgley et al. 2000). Martin’s MES–W measures behaviours that reflect high levels of motivation and engagement at work through the following scales: self-belief, learning focus, valuing, persistence, planning, and task management. The scale also measures factors likely to inhibit motivation and engagement: disengagement, self-sabotage, uncertain control, failure avoidance, and anxiety. The TSES measures teacher efficacy for being able to engage students, for being
able to provide a variety of instructional strategies to cater for the needs of students, and for being able to manage disruptive behaviour effectively. The PALS measures the degree to which teachers reflect mastery or performance goals; that is, whether they believe that students should be motivated through goals that relate to acquiring mastery of skills or whether they believe students should be motivated by comparing them with each other.

All intervention teachers were video-recorded teaching for 20 minutes each before they attended any workshops (see below). The teachers were told that they could be teaching anything they chose, but needed to be instructing students rather than monitoring completion of work or being involved in other non-instructional activities. They were told that we wanted to have an idea of how they taught before the intervention began. However, the purpose of the videos was, in fact, to evaluate changes in verbal and non-verbal behaviour over the period of the intervention.

**Student achievement measure**

At the same time as teachers completed their questionnaires (the MES-W, the TSES and the PALS) and their expectations for student achievement, we collected baseline data from students, consisting of a standardized reading and mathematics test and a questionnaire designed to measure psychosocial beliefs. We used e-asTTle to measure student reading and mathematics (Ministry of Education 2010). These e-asTTle tests are created online and are designed to be used by students either online, as a paper and pencil version, or both. The e-asTTle platform can assess student achievement in reading, mathematics and writing, in English, and in the same curriculum areas in the Māori language. The reading and mathematics tests have been designed to be used mostly with students in Years 5–10. However, because they measure skills at Level 2 (which an average Year 3 and 4 student will be working at) and at Level 6 (which an average Year 12 and 13 student will be completing), e-asTTle can be used with age groups younger than Year 5 and older than Year 10. Teachers create e-asTTle tests online that range from 12 minutes through to 60 minutes. Our e-asTTle tests were all 40 minutes, to enable us to create a comprehensive test for reading and mathematics that included different components of the curriculum. We could also choose the difficulty level of each test. This meant I could choose from having most items at a particular level, many items at a particular level, or some, few or none. For each test at a particular level, I chose to have most items at that level (approximately 80 per cent of items), a few at the level above (approximately 10 per cent of items) and a few at the level below. Once I had created tests at each level (Level 2, Level 2/3, Level 3, Level 3/4, Level 4, Level 4/5, Level 5 and Level 5/6), I could then select a button (‘Create similar test’) for each round of subsequent testing and be confident that all tests would be comparable.

Item response theory was used in standardizing all items in e-asTTle, so that every item has measured psychometric properties. This means that the difficulty
of any test can be calculated, and comparisons can be made between the same
group of students taking different tests, or different groups of students taking
different tests. In other words, students sitting one test will score very similarly
on any other e-asTTle test, because of the way in which the items have been
calibrated. Further, subsequent tests were similar but not identical (thus avoiding
practice effects), meaning that, because of the use of item response theory in
determining the properties of each item, I could be confident, when comparing
student progress and results from one test to the next, that the student would
have scored similarly, even though the later tests were not identical to the first.

For reading, the three curriculum areas of processes and strategies, purposes
and ideas were selected to be assessed; for mathematics, the
equivalent three areas were number knowledge, number operations, and algebra.
These were the curriculum areas tested in every administration. The next step
in the test creation process was to choose the proportion of closed questions
required (few, some, many, most). For both reading and mathematics, I chose
‘most’ closed questions, simply for ease of marking the large number of tests.
The closed questions did have items that required higher levels of thinking. Each
item was coded based on the SOLO taxonomy (Biggs and Collis 1982), and so
questions ranged from basic factual questions, where only one response was
possible (unistructural; e.g. ‘Who painted Guernica?’), to items where students
had to give more than one factual response (multistructural; e.g. ‘Outline at least
two compositional principles that Picasso used in Guernica’), to questions in
which students needed to relate one aspect to another (relational; e.g. ‘Relate
the theme of Guernica to a current event’) and to items that involved high-level
abstract thought (extended abstract; e.g. ‘What do you consider Picasso was saying
via his painting of Guernica?’). 1

At this point, I was able to create each test and then review each one. I sent
the first set of tests to three deputy principals, one in each of a high, medium
and low socioeconomic school, so that they could determine the suitability of
the tests for their students. One reading passage and the items that accompanied
it were considered by two of the deputy principals to be unsuitable, as the story
had American content they believed students would not be familiar with. They
did not identify any problems with the e-asTTle mathematics tests I had created.
Because e-asTTle enables the creator to substitute two reading passages and the
associated items (or up to 20 per cent of mathematics questions) that the system
generates as alternatives, I was able to change the one problematic passage. The
tests were then sent to the three initial and two further deputy principals, who
this time did not identify any difficulties. Subsequent tests were also carefully
reviewed before being accepted for administration. Once students had completed
the tests, they were marked online. For paper tests, this involved entering in the
student responses for each test item. The items were entered by one of the
research assistants and then checked for accuracy. For the online version, only
open-ended items needed to be marked, because the closed questions were
automatically marked by the e-asTTle system. The e-asTTle system provided
possible responses and points for all open-ended items, and the research assistant
decided on the allocation of points (normally 1 for a correct response and 0 for
an incorrect response). Once e-asTTle had been marked, it was possible to
obtain individual student-, class- or school-level reports.

**Student psychosocial measurement**

The student questionnaire was designed to measure student self-concept, student
motivation, student self-expectations and perceptions of their teachers’
expectations, and student perceptions of the class climate. The peer relations,
reading, mathematics, general self and general school scales for Marsh’s SDQ-1
(Marsh 1990) were selected to measure student self-concept. Marsh considers
self-concept, self-esteem and self-efficacy to be differentiated only theoretically
by academicians and not practically, and, hence, the SDQ-1 contains items that
would be classified under all three concepts.

The student motivation scale formed the largest section of the question-
naire and comprised various motivation scales reflecting differing theoretical
perspectives. In all cases, parallel items were created in relation to reading and
mathematics. The perceived competence in reading and perceived compet-
ence in mathematics factors were created by adapting items from established
scales (Eccles (Parsons) _et al._ 1983; Wigfield and Eccles 2000, 2002). They were
adapted to fit the 1–5 scale (1 = false, 2 = mostly false, 3 = sometimes true/
sometimes false, 4 = mostly true, 5 = true) that we were using. For example,
‘How good at maths are you?’ became ‘I am excellent at maths’, and ‘Compared
to most of your other activities, how good at maths are you?’ became ‘Compared
to most other subjects, I am better at maths.’ The self-efficacy scales in reading
and in mathematics were another two factors included; for example, ‘I am sure
that I can do even the hardest work in maths this year’ (Eccles (Parsons) _et al._
1983; Wigfield and Eccles 2000, 2002) and ‘I am sure that I can learn everything
the teacher teaches in maths this year’ (Fast _et al._ 2010). The student scale also
included parallel items from the teacher questionnaire related to goal orientation
as a measure of whether students were motivated by mastery or performance
goals in both reading and mathematics (Midgley _et al._ 2000). We included some
items to measure intrinsic and utility value in mathematics and reading; these
were based on expectancy value theory, which states that the more students are
interested in an activity (intrinsic value) and view it as being worthwhile (utility
value), the more likely it is that they will be motivated to complete the activity
(expectancy value) (Eccles (Parsons) _et al._ 1983; Wigfield and Eccles 2000, 2002).
Again, some of these items were adapted slightly from the original items of
Eccles and colleagues (1983) and Wigfield and Eccles (2000, 2002). For example,
‘How much do you like doing maths work?’ became ‘I like to do maths a lot.’
One item to measure utility value in both mathematics and reading was taken
from the Fennema–Sherman Mathematics Attitudes Scale (Fennema and Sherman
1976): ‘Mathematics is a worthwhile and necessary subject’ was changed to
‘Maths is an important and really useful subject.’ The final factor included in the motivation subscale was one designed to measure students’ beliefs that intelligence is either fixed or malleable (Dweck 2009, 2012), which we created based on Dweck’s theoretical and empirical work and which had been used in an earlier study in which I was involved (Dixon et al. 2008).

Student self-expectations, for example, ‘I expect to do well in maths this year’; perceptions that their teacher had high expectations for them, for example, ‘My teacher thinks I am good at maths’ (Rubie-Davies 2006); and perceptions that their teachers’ expectations were too high, for example, ‘My teacher expects too much of me’ (based on Dixon et al. 2008), were also included in the student scale and mostly developed or adapted specifically for this study.

The final scale measured student perceptions of class climate, with all items taken directly from Rowe et al. (2010). This scale measures student perceptions of teacher academic and personal support, student academic and personal support, general academic competence, and satisfaction with school.

**Teacher workshops**

The next phase of the project involved the intervention teachers attending a series of four day-long workshops, spaced approximately two weeks apart, beginning in March and ending in May, with each workshop focused on a particular theme. I ran two parallel sessions each week, so that we could keep the teacher groups relatively small (approximately twenty per group), in order to maximize interaction and support. This also enabled teachers to swap days when, occasionally, they were unable to attend on their allocated day. I led each workshop, with at least two of my fellow researchers in attendance, to provide additional support for teachers and to answer questions.

The first workshop was designed to introduce the intervention teachers to the teacher expectation field, so that they understood the background to the Teacher Expectation Project, could see where the project they were involved in fitted in relation to the research, and how it had evolved. A further component of the first workshop was that the intervention teachers were provided with information related to Babad’s (2009) description of teacher non-verbal behaviour that portrays teacher expectations. This included voice tone, facial expressions, and body language that revealed how teachers really felt about students. Following this introduction, the teachers were given their DVDs, viewed their own videos, and analysed their own behaviour, based on what they had learned. Subsequently, they were sent further videos, taken over the three years of the intervention, so that they could monitor their progress in controlling their non-verbal behaviour. It had been planned that, during the first workshop, teachers would sit, view their own videos and reflect on their verbal and non-verbal behaviour. However, the teachers were highly enthusiastic about this aspect of the first workshop and were quickly sharing their videos with each other and commenting on the various videos. This led to a rich analysis of each teacher’s
verbal and non-verbal behaviour. Teachers became well attuned to the messages displayed in the ways they interacted with students.

The second workshop focused on grouping and learning activities, and the third centred on the class climate. The final workshop concentrated on promoting student motivation, engagement, and autonomy, and teacher evaluation and feedback, all of which were subsumed under the concept of goal setting. At each of these workshops, in the morning block, I introduced the beliefs and practices of the high expectation teachers. During the mid-morning block, I linked the high expectation teachers’ beliefs and practices to other educational research, to show why their practices were most probably effective in raising student achievement and promoting positive attitudes among students. In the afternoon, the intervention teachers worked together to plan how they would introduce the new practices into their classrooms. This ensured that the teachers had ownership of what was planned for their classes, but also enabled us, as the researchers working alongside the teachers, to monitor the integrity of the intervention with what was being planned. At the end of each session, we collected all the ideas that the teachers had generated related to the changes they would make in their classrooms, and then the project manager and I assembled them into a set of ideas that we distributed to everyone in the next session. Following the final session, we assembled all the ideas and emailed the final booklet to all the intervention teachers, so they had a large databank of ideas to draw from in implementing the changed practices. Also, we surveyed the teachers at the end of each workshop, where they rated the effectiveness of the workshop and the degree to which they believed they would implement the new practices. The teachers were also invited to make comments. We used these comments to refine the workshops, and also to gauge how useful the teachers were finding what they were learning.

Following the workshops, intervention teachers implemented the practices into their classrooms in ways that suited them. This helped to ensure that the teachers had ownership of the introduction of the practices to their classes and increased the chances that they would make changes (Timperley 2008). Further, New Zealand teachers are used to having a lot of autonomy in curriculum implementation, and, hence, providing them with choices for new practices reflected common practice. Most intervention teachers chose to introduce the changes gradually over the year, mainly focusing on grouping and learning experiences in the second term (April–June) and class climate in the third term (July–September); most did not introduce the changes related to goal setting (motivation, engagement, student autonomy, evaluation, and teacher feedback) until the final term (October–December).

Approximately one month after the final workshop, and again in August and in October, we visited the intervention teachers in their schools, so they could share their successes, and we could provide any support that they wanted. Mostly, these meetings were set up whereby schools were paired. Although not a deliberate part of the design, this pairing was very successful, as it meant that
teachers from different schools were anxious to show and compare what they had done. Many brought along examples of what they had changed in their classrooms, and we photographed examples to share on our website (see Figures 7.1–7.4). The teachers also garnered further ideas from others to introduce into their own classrooms, and they discussed how aspects of the intervention were working.

At mid-year, all teachers again completed their expectations for student end-of-year achievement, and the students completed further reading and mathematics tests. The intervention teachers were again videoed and sent their DVDs for analysis and reflection. At the end of the year, the psychosocial measures were repeated for all teachers and students, students completed further reading and mathematics tests, and the intervention teachers completed an evaluation of the intervention. The evaluation included rating aspects of the intervention on a 1–5 scale, to measure the degree to which teachers had implemented aspects of the evaluation and how successful the teachers believed that the intervention had been in improving learning and relationships in the classroom. Towards the end of the academic year, we held a celebration of what intervention teachers had achieved. Teachers who wished to do so presented something they had done that had been particularly successful, so that, again, the ideas could be shared. Once more, this was hugely successful, as teachers were highly motivated to share what they had done in their classes. If there was...
a downside to the evening, it was that too many teachers wanted to share too many success stories! This resulted in a much longer (though enjoyable) evening than had been planned.

The second year of the project involved the intervention teachers teaching the practices to the control-group teachers – at least, that was the plan. We held a one-day workshop with intervention teachers, where I explained what they would need to do and where we brainstormed the practicalities of how they would be able to work with the control teachers. Feedback indicated that many of the intervention teachers did not feel adequately prepared to speak to the control-group teachers about the background to the project (the theoretical underpinnings) and link that background to the particular changes they had made to their teaching. They felt more confident about showing the control teachers the changes they had implemented. As a result of this feedback, I ran a one-day workshop for the control group, in which I provided the background to the project and delivered a compressed version of what had been conveyed to the intervention teachers over the four workshops in the first year. All the control-group teachers were given a Good Practice Booklet, which comprised the ideas gathered from the intervention teachers in the first year (the booklet we had assembled the previous year). Again, we measured student achievement in reading and mathematics, teacher expectations and teacher and student psychosocial beliefs, before the intervention or control-group teachers attended
the workshop sessions. These measures were repeated at the end of the second year, and again at the beginning and end of the third and final year of the project. Intervention teachers were videoed mid-year in the second and third years of the project. All teachers (control and intervention) evaluated the project at the end of the second and third years, and we held an evening at the end of the second and third years where all teacher participants and their principals were invited to attend, discuss their participation in the project and present any notable successes. The primary aim of the third year of the project was simply to determine whether or not the intervention and control teachers maintained the new practices – the ultimate test of the success of the project.
In the second and third years of the Teacher Expectation Project, the measurement of students became more complex, because we tracked the students who had been in the intervention teachers’ classes from the first year through to the second and third years. In the second year of the project, some students moved from one intervention teacher to another intervention teacher, some moved to a control teacher’s class, and some moved to a teacher not involved in the project – this included some students who moved to a school not involved in the

FIGURE 7.4 Newspaper created by a group of mixed achievers
project. In the third year of the project, we again tracked the students from the intervention teachers in the first year, as well as students from the second year, into the final year of the project. We want to measure the sustainability of any changes in student achievement and psychosocial beliefs over time. However, all these possibilities and the large numbers of students who came to be part of the project indicate why, at the end of the third year of the project, we were still entering data from the second year. There are, indeed, mountains of data, which no doubt will result in some exciting and in-depth understandings about the degree to which teachers can be trained and can effectively implement the practices of high expectation teachers. This is an especially interesting aspect of the Teacher Expectation Project, because research has mostly tried to change teacher beliefs in the hope of shifting practice. In the Teacher Expectation Project, we are attempting to modify teacher practices, in the hope that the new practices result in noticeable changes to student achievement and psychosocial outcomes, such that teachers alter their beliefs about what students can achieve and what they can expect.

First-year findings

Teacher expectations

The expectations for both the control and intervention groups were above the midpoint at the beginning of the year (approximately 4.5 on a 7-point scale) in both reading and mathematics. The expectations of the teachers in the intervention group for their students remained at those levels from the beginning to the middle of the year. Interestingly, though, the expectations of the control group, in both reading and mathematics, declined significantly after just four months. It may be that the intervention had a buffering effect for the group who received the training. It is also possible that the naturally occurring cycle is that teachers begin the year optimistic about their students and the progress that they will make. However, as the year progresses and some students prove difficult to influence, teachers may become less optimistic. Changes in teacher expectations for the whole class through experimental manipulation have been infrequently studied in the literature, and there are no other large-scale studies that have examined this phenomenon. One smaller study in a high school (Weinstein et al. 1991, described in the previous chapter), where the researchers worked with teachers to implement a teacher expectation intervention, unfortunately did not measure changes in the teachers’ expectations.

There are two naturalistic studies of the stability of teachers’ expectations. The first is a study by Martinek (1980), in which he asked six physical education teachers to provide their expectations for students in each of a Grade 2, 4 and 6 class, on a scale from 1 (very low expectations) to 7 (very high expectations), for their overall performance in physical education, their social relationships,
cooperation, and cognitive reasoning. Martinek collected the same expectation data eight weeks later. He found correlations as high as \( r = 0.96 \) between teacher expectations of social relationships from the initial measurement and then eight weeks later. For reasoning, the correlations were not so high and were as low as \( r = 0.68 \). Martinek argued that teacher expectations were stable over time. However, the time interval between measurements was fairly short. Further, although the correlations were high for teacher expectations of student overall performance and social relationships, they were not as large for either cooperation or reasoning.

The second study was conducted by Kuklinski and Weinstein (2000). They examined stability in two different ways and with two different samples. With the first group of students, forty-eight teachers provided their expectations for approximately ten students in each class (\( N = 464 \)) in Grades 1, 3 and 5. First, at the beginning of the academic year, the teachers rank ordered their students for the achievement that they expected in reading for each student, from the one they expected to do worst through to the one they expected to do best. Towards the end of the academic year, the teachers completed the same exercise, and stability was examined by comparing the second ratings with the first. Kuklinski and Weinstein (2000) reported that there was strong stability between the first and second rank orderings for 46 per cent of students, moderate stability for 42 per cent and little stability for only 13 per cent. Second, the teachers provided a level that they expected each student to achieve in reading, from 1 (poor) to 5 (outstanding), at both the beginning and end of the academic year. The ratings were the same for 54.3 per cent of students in Grade 1, for 49.7 per cent in Grade 3 and for 52.5 per cent in Grade 5. However, in only 6 per cent of cases did the ratings change more than one level. Similar results were reported for the second sample, whereby, following rank ordering of the students, the ratings of the twelve teachers in that sample were moderately stable for 67 per cent of students (\( n = 138 \)) and strongly stable for 33 per cent. The authors argued that both the rank ordering and assignment of levels of achievement for both samples indicated stability of teachers’ expectations. Nevertheless, the results do suggest that there was some variability in teachers’ expectations from the beginning to the end of the year, using both methods of gathering teachers’ expectations.

It will be interesting to analyse the expectations of the intervention and control groups over the second and third years of the Teacher Expectation Project – the intervention group to examine if their expectations remain high, and the control group to see if their expectations are influenced as they implement the changed practices that comprise the intervention, related to: grouping and learning activities; enhancing the class climate; and motivation, engagement, student autonomy, evaluation, and teacher feedback. The expectations of the intervention group remained high in the first year of the project, even though they were grappling with new teaching methods and changes to their classroom structures and relationships. It may be that, in the second year, once these changes had
become embedded, the expectations of the intervention group increased further. It would be hoped that, in the second year of the project, the control group also achieved high expectations throughout the year.

**Student achievement gains in mathematics and reading**

We (Rubie-Davies et al., forthcoming b) used a Bayesian latent growth curve model to measure changes in student achievement in mathematics and reading, at three time points during the first year of the project, in the classes of intervention and control-group teachers. Bayesian statistics are not as frequently used as the more common frequentist methods (maximum likelihood) and do not rely on a normal distribution, as do frequentist methods; that is, Bayesian statistics allow for skewing of the data. They are also particularly useful for analysing very complex statistical models, for completing complex data analyses and for conducting longitudinal data analyses. (For a review of Bayesian statistics, see Kruschke et al. 2012.) To estimate our latent growth curve models, we employed multilevel grouping, whereby students were nested in schools. Hence, our model acknowledged that students within different schools could differ, but we did not take account of classroom variability in our nested design, because of the complexity of our model. Also, although we could have simultaneously examined changes in both mathematics and reading in one model, given that our model was already very complicated, we chose to analyse the data in two separate models, one for mathematics and one for reading.

We used our baseline models to investigate the rate of student achievement change in mathematics and reading across the three time points when students were tested (the beginning, middle and end of the academic year). In that way, we could determine the initial levels of achievement for the control and intervention groups, determine the rate of change across the year and assess whether the rate of change differed for some students compared with others. We then tested if the intervention had affected the rate of change. If the intervention predicted the rate of change, this would indicate variation in achievement between the intervention and control groups over the year. Within the model we created, we were able to predict the average end-of-year achievement score for students in the intervention versus the control condition in both mathematics and reading. The mean e-asteTTle score in mathematics for the intervention group was 1,426 (SD = 97.51) at the beginning of the year, 1,451 (SD = 97.58) at mid-year, and 1,473 (SD = 92.92) at the end of the year. The mean control-group scores were 1,421 (SD = 98.44) at the beginning of the year, 1,442 (SD = 99.27) at mid-year, and 1,451 (SD = 90.45) at the end of the year.

The baseline model showed that mathematics achievement increased significantly by approximately 37 points across all students (b = 37.129, Post. SD = 1.883, p < .001, 95% Cred. Interval = 33.449, 40.819), showing that, overall, all students made progress. The model also showed that the rate of change in mathematics achievement varied for different students ($\sigma^2 = 2,197.723$,
Post. $SD = 268.462$, $p < .001$, 95% Cred. Interval = 1,667.501, 2,719.526). This means that, although achievement in mathematics increased over the year, there was variation among students in how quickly they improved; some increased their scores at a faster rate than others.

The baseline model for reading also showed that achievement increased significantly over the year by about 35 points ($b = 34.738$, Post. $SD = 1.714$, $p < .001$, 95% Cred. Interval = 31.405, 38.113). There was also variance in the rate of change in reading ($\sigma^2 = 2,409.305$, Post. $SD = 580.279$, $p < .001$, 95% Cred. Interval = 1,240.076, 3,502.710), indicating that some students improved more quickly than others in reading.

Figure 7.5 presents a schematic view of the model we tested to determine if the intervention had had an effect on achievement. This model enabled us to test if students whose teachers had been randomly assigned to the intervention group would show greater increases in mathematics and reading achievement than the students in the control-group classrooms. Indeed, that was what we found, because the group that students were in significantly predicted the rate of change in their mathematics achievement ($b = 8.781$, Post. $SD = 3.765$, $p < .001$, 95% Cred. Interval = 1.291, 16.035). Notably, there was no difference in the scores of students in the control or intervention groups at the beginning of the year ($b = 2.964$, Post. $SD = 4.286$, $p = .245$, 95% Cred. Interval = –5.255,
Further, the predicted beginning-year mathematics achievement score for students in the control group was significant (Intercept: $b = 1422.300$, Post. $SD = 3.122$, $p < .001$, 95% Cred. Interval = 1,416.211, 1,428.453). Students in the control group generally increased their e-asTTle mathematics score by approximately 32 points across the year ($b = 32.472$, Post. $SD = 2.720$, $p < .001$, 95% Cred. Interval = 27.129, 37.797), but students in the intervention group increased their mathematics scores by about 41 points (the addition of the $b$ for main effect = 32.472 and the effect of receiving the intervention $b = 8.781$).

In relation to the predicted scores, our model showed that, at the end of the year, the mean mathematics score for control-group students was 1,454.769 (Post. $SD = 2.986$, $p < .001$, 95% Cred. Interval = 1,448.883, 1,460.592), whereas the average score for the intervention group was predicted to be approximately 12 points greater, 1,466.514 (Post. $SD = 2.821$, $p < .001$, 95% Cred. Interval = 1,460, 1,460.949, 1,471.982). Notably, this difference in predicted points was also significant ($b = 11.748$, Post. $SD = 4.111$, $p < .001$, 95% Cred. Interval = 3.740, 19.867).

In summary, our model showed that students in the intervention- and control-group classes had comparable mathematics achievement at the beginning of the year. All students improved their mathematics achievement over the year. Nevertheless, the students who were in the intervention group improved more than those in the control group, gaining about 9 points above the achievement gains of the control group. This represents an additional gain for the intervention group of about 28 per cent. Another way of putting this is that it means that students with intervention teachers gained an additional three months’ learning in mathematics compared with what the control group learned over the same time (one year).

We used the model developed for mathematics to test the gains for students and effects of the intervention on reading scores. This time, being in the intervention group did not predict the rate of change in achievement across the year ($b = –3.969$, Post. $SD = 3.398$, $p = .121$, 95% Cred. Interval = –10.535, 2.774). Neither did it predict the beginning-year rates of reading achievement ($b = 4.037$, Post. $SD = 4.698$, $p = .195$, 95% Cred. Interval = –5.222, 13.213). Overall, reading achievement increased by about 37 points over the year ($b = 36.822$, Post. $SD = 2.473$, $p < .001$, 95% Cred. Interval = 31.924, 41.610), but there was no difference in the degree of improvement for the control and intervention groups. Hence, in reading, the intervention did not appear to affect achievement. Why might this be?

Currently, we have only analysed the data from the first year of the project and, hence, do not yet know if there were changes in student reading achievement in the second year of the project. I can only speculate about why the intervention group made significant gains on the control group in mathematics but not in reading. First, I believe that teachers found it easier to implement the grouping and goal-setting changes in mathematics than in reading. More teachers reported making changes to using flexible grouping in mathematics than in
reading. Using within-class ability grouping is entrenched in New Zealand primary schools, more so in reading than in any other subject. Moreover, several teachers reported making changes to their mathematics teaching before implementing any changes in reading. Second, mathematics is a linear subject, and, for that reason, teachers found it easier to set goals with students in mathematics than they did in reading. Interestingly, Rosenthal (Rosenthal and Jacobson 1968) also reported greater gains in reasoning IQ than in verbal IQ in his study. Nevertheless, it is hoped that the positive benefits in mathematics will be seen in reading in subsequent years, given that, after the first year of the project, most teachers will be fully implementing the changed practices. Interestingly, those who had implemented flexible grouping in reading certainly reported that they had noticed improvements among their students. For example, one teacher reported that he normally moved his students up one reading level (by reading age) following testing, but found that he was now moving students up to three levels at each testing. It may be that there are isolated successes with those teachers who have successfully implemented flexible grouping in reading, but that these are not large enough to create statistically significant differences across the whole sample.

Because the questionnaires for both students and teachers contain many factors, in the next sections I am going to report only a selection of factors. I have chosen some of particular interest in the study and ones that revealed statistically significant differences between the control and intervention groups by the end of the first year, based on some preliminary analyses (repeated measures ANOVAs). I have not reported the statistical output below, because these analyses were conducted without any controls or nesting of the data, and so caution is warranted in interpreting these results. Over the next few months, we are planning to gradually complete higher-level statistical analyses, using more sophisticated data analysis tools that will provide more robust findings.

Student perceptions of teacher expectations

There were changes over time between intervention and control groups in student perceptions of their teachers’ expectations. Students in the intervention group appeared to become more aware that their teachers had high expectations of them than did those in the control group, because, by the end of the year, there were statistically significant differences between the intervention and control groups in their perceptions that their teachers’ expectations were high. The mean of the control group remained similar across the year, whereas that of the intervention group increased. It may be that the teachers were giving students more explicit messages about what they expected. However this change occurred, students did seem to understand that their teachers expected them to do well. Other researchers have reported how perceptive students are and how they know what their teachers’ expectations are for them (Weinstein 2002; Babad 2009). It will be interesting, as we complete our analyses over time, to
see whether the students with the original intervention group change their perceptions of their teachers’ expectations, depending on whether they move to another intervention teacher, to a control teacher or to a teacher not involved in the project.

**Teacher and student beliefs**

Overall, both teacher groups increased their teaching efficacy over the first year of the project for all three factors: efficacy in student engagement, in instructional strategies and in class management. However, there was a trend for the teacher efficacy beliefs of those in the intervention group to increase over the year more than those of the control group, particularly for efficacy in instructional strategies. This scale measures how well teachers feel they can implement a range of teaching methods so that students learn. We measured a parallel student self-belief, that of self-concept. The self-concept in mathematics (but not in reading) of the students in classes of intervention-group teachers increased considerably over the year in comparison with that of the control group. This measure included items such as, ‘I learn things quickly in maths’ and ‘Work in maths is easy for me.’ This self-concept result for mathematics is fascinating, given that students with intervention-group teachers also increased their mathematics achievement compared with students with control-group teachers, and yet there were no similar improvements in reading for self-concept or achievement for the intervention group compared with the control group. This was similar to a result I found in one of my earlier studies (Rubie-Davies 2006) mentioned in Chapter 4, where the self-perceptions of students with high versus low expectation teachers increased over one year, and their achievement also increased substantially.

The goal orientation of both teachers and students was also measured in the first year of the Teacher Expectation Project. Again, there was some alignment between teacher and student beliefs. Intervention-group teachers came to be significantly less performance-oriented over the year compared with control-group teachers, and so they came to place less value on student competition over the year. Similarly, the students with intervention-group teachers, when compared with those with control-group teachers, also showed a significantly greater decline in a performance orientation. One aim of the project was for the focus of student achievement to move from competition to a focus on individual student learning and development of skills through goal setting. This was a feature of the final workshop and will be more fully outlined in Chapter 13. Conversely, over the year, there was a trend for intervention teachers to become more mastery-oriented than control teachers, also in line with the project aims. However, this was not reflected in student beliefs. Students in both intervention and control groups became less mastery-oriented over the year. It may be that, although teachers in the intervention group emphasized competition less over the year, they did not sufficiently include goal setting in their teaching for
students to change their focus. Implementing goal setting was the pedagogical change the intervention teachers reported as least likely to have been introduced into their classes by the end of the first year of the project. This may be because goal setting was the focus of the final workshop, and so teachers concentrated most on changing their practices in relation to grouping and learning activities and enhancing the class climate in the earlier part of the year. Several reported that they were going to concentrate more on goal setting in the second year of the project, once they had grouping and learning experiences and enhancements to the class climate integrated into their normal teaching practice. However, this contention as to whether an increased emphasis on goal setting would lead to changes in students’ mastery beliefs would need further investigation for it to be confirmed.

Students with intervention teachers also came to view mathematics as being a subject they would use outside school and when they grew up (utility value), more so than students with control-group teachers. The differences in the views of students were statistically significant by the end of the year. When students perceive that a curriculum area is useful and valuable, this has been shown to influence motivation (Wigfield and Cambria 2010), which in turn can influence achievement, and, indeed, as has been shown, student achievement in mathematics did increase significantly more in classes of intervention teachers than in classes of control-group teachers.

Overall, it is noteworthy to find that, in the classes of intervention teachers, student achievement increased in mathematics over the year, and there are corresponding increases in student self-concept, beliefs about the usefulness of mathematics and a decreased performance orientation in relation to mathematics. It appears that the increased achievement of students in classes of intervention teachers also had benefits in terms of students’ beliefs.

Over time, there was a significant difference between the intervention and control-group teachers in their anxiety levels and feelings of being in control in their schools. The intervention group became less anxious and felt more in control than their control-group peers. It may be that the more relaxed class climate associated with enhancing relationships in the classroom and the positivity that was developed led to the intervention teachers becoming less anxious than the control group. Similarly, because the intervention teachers were making substantive changes to their pedagogical practices associated with the project, this may have led to them feeling more in control of what they taught and how they taught it, when compared with the control group, who continued to teach in traditional ways. The intervention teachers were also given considerable autonomy in how and when they implemented the changed practices, which may have resulted in them feeling in control of their teaching.

Interestingly, however, the perceptions of class climate of students in classes of control and intervention groups declined over time in terms of perceptions of teacher personal support, peer personal support and peer academic support. There was a trend for the decline to be greater in classes of control-group
students, however. Similarly to teachers’ expectations, it may be that, in general, student perceptions of the class climate do decline over time. To my knowledge, this has not been previously tested in the literature. It may be that, over time, the perceptions of students with the intervention-group teachers decline less or even begin to improve, as the practices designed to enhance the class climate become embedded in teacher practice. That the perceptions of students with teachers in the intervention group showed less of a decline than those of students with control-group teachers is, therefore, important.

## Qualitative data

The findings from the qualitative data gained from the teacher evaluations largely supported the findings from the quantitative data. Teachers reported using flexible grouping more in mathematics than in reading. However, those who had fully implemented flexible grouping into their reading programmes reported that it was working well and that they had seen obvious benefits for students. For example, they reported realizing that ability grouping constrained the learning of low-achieving children, whereas flexible grouping enabled the students to have choice and fostered motivation and enthusiasm; they had noticed increased motivation and engagement among their low achievers. The use of flexible grouping was in line with the practices of high expectation teachers and will be explained in more detail in the next chapter. Teachers further reported that flexible grouping meant they had introduced a wider range of activities to the class, which students were clearly enjoying. There was a perception in the classes of teachers where flexible grouping was fully embedded that student progress in both reading and mathematics had accelerated over the year.

Teachers further reported benefits in the efforts they had made to enhance the class climate. They reported students being more confident, excited and motivated and demonstrating greater self-confidence and less concern about the achievement of others. Enhanced relationships in the classroom were also reported. Overall, teachers were extremely positive about being involved in the project and the benefits they saw for their students. It will be interesting to measure changes in student beliefs over time in relation to the class climate, as the practices introduced in the first year of the project became more embedded in teacher practice in subsequent years.

Promoting motivation, engagement, student autonomy, evaluation, and teacher feedback were framed within the idea of goal setting with students. Goal setting had been implemented to a lesser extent than the other components of the intervention, and this may be why there was no change found in student mastery beliefs. However, the use of a formative assessment measure for setting goals (explained in Chapter 13), which in effect is a change from a focus on performance in relation to others to a focus on one’s own goals, may explain...
the decrease in a performance orientation that was found for the students with intervention teachers.

Looking across the results, the project appears to show some substantive differences between intervention teachers and their students and control-group teachers and their students. Because the study is experimental, I am able to make claims that the changes may be due to the intervention. That there are changes is very exciting and augurs well for future phases of the study. The positive effects the intervention has had on student achievement, teacher expectations, and teacher and student beliefs in the first year of the project are very encouraging. Changes with teachers and students are difficult to achieve in research, which is why experimental studies such as this one, where teachers are randomly assigned to the intervention, are regarded as the gold standard in research. If changes are found, they can be considered to be due to the intervention and not to other factors. This is unlike other forms of professional development, in which new practices may be introduced and enthusiastically implemented, but there is no real measure of effects on students or teachers. That changes have been found is a testament to the commitment and enthusiasm of the intervention group, who so willingly trialled the range of activities we developed in the workshops.

Part II has introduced much of my own work and, in particular, a large intervention project that promises many exciting findings in the future. In Part III, I introduce the key practices of high expectation teachers in more depth: grouping and learning experiences; class climate; and motivation, engagement, student autonomy, evaluation, and teacher feedback (goal setting). Part III contains seven chapters. The first six, Chapters 8–13, are presented in pairs: a chapter that provides specific examples of high expectation teachers’ practices and the theoretical background that may explain why the high expectation teachers made the decisions they did, followed by a chapter of practical ideas for regular teachers to implement into their classrooms. The final chapter in the book, Chapter 14, is devoted to principals everywhere. With their support, every school could become a high expectation school, and students everywhere would benefit.

Note

1 Examples are from Hattie and Brown (2004).
A teacher expectation intervention

Theoretical and practical perspectives
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The previous chapter provided an overview of the Teacher Expectation Project. This chapter is the first of three chapters (Chapters 8, 10, 12) to provide a theoretical perspective on the three key practices of high expectation teachers (see previous chapter). The focus of the current chapter is on flexible grouping and begins with what the high expectation teachers said about their preference for flexible forms of grouping rather than ability grouping. This is followed by a theoretical discussion pertaining to the evidence in relation to various forms of ability grouping. This discussion gives an insight into why high expectation teachers chose to include flexible forms of grouping in their classrooms.

**Grouping students: the voices of teachers**

The reality of student diversity in the classroom presents a continual challenge to teachers. At the beginning of each year, teachers receive a mountain of information about their students. From this information of students’ past achievements and teachers’ initial impressions of the children, expectations for the children’s academic success and progress are formed. On the basis of these expectations for children’s learning, teachers design programmes that they feel will best meet the needs of the children in their classrooms. Depending on their beliefs, one decision that teachers may make is to place students into within-class ability groups.

Within-class ability grouping is common in primary schools in many Western countries, particularly those that have the full achievement range in every classroom. Within-class ability grouping enables teachers to manage a range of achievement levels in core curriculum areas such as mathematics and reading. Students of similar ability are grouped together, and so they learn together.
Therefore, from an organizational perspective, within-class ability grouping is useful. New Zealand is one country that has included within-class ability grouping in its organization of students. Indeed, in New Zealand, students in most primary school classrooms are grouped homogeneously by ability for reading and for mathematics. Many teachers also group for spelling, written language, and sometimes even in curriculum areas such as handwriting and physical education. In teacher education programmes, student teachers are taught how to group students for instruction, the implication being that this is the ‘right’ way to teach. Within-class ability grouping is an entrenched, ubiquitous, and unchallenged practice in New Zealand. Indeed, New Zealand has the highest within-class ability grouping rate of any OECD country (Wagemaker 1993); however, New Zealand also has the greatest achievement disparity of any OECD country (Tunmer et al. 2004). I cannot help but wonder if there is a connection.

Finland, on the other hand, frequently tops other OECD countries with its PISA and PIRLS results for mathematics, science and literacy. Finland has a policy of heterogeneous grouping throughout schooling and has one of the narrowest gaps among the OECD participants between their highest and lowest achievers. I do not consider this to be a coincidence.

When I began exploring the conception of high and low expectation teachers, had identified them, begun talking with them and observing them, the finding that most struck me in relation to these teachers was that, although some (but not all) used ability groups for instruction, none grouped for learning activities – and these were teachers whose students were making enormous gains in achievement each year (see Rubie-Davies 2007; 2008). This was a ‘wow’ moment for me, and I wanted to find out more about how they organized their students, if not in within-class ability groups, and the types of learning activity they incorporated into the classroom. Interviews with high and low expectation teachers were revealing, because of the contrasts in teaching philosophy. Quotations from the interviews are included below. For those from a low expectation teacher, the pseudonym given to the teacher will begin with an ‘L’; when the teacher is a high expectation teacher, the pseudonym will begin with an ‘H’.

Most of the teachers interviewed grouped their students by ability for reading and mathematics. However, there were differences between the high and low expectation teachers. High expectation teachers, even if they ability-grouped the students for instruction, did not ability-group for learning activities. Some teachers allowed students to choose their activities, some used whole-class activities, and others grouped students socially to complete their tasks and avoided combinations of students with poor behaviour. A couple of the teachers I interviewed worked with the students individually for instruction but had whole-class learning activities, and another teacher paired up her first and third, and second and fourth quartiles, and they worked together on activities in pairs or small groups. The low expectation teachers, however, placed their students into ability groups for instruction and maintained those groupings for the students’ learning activities – as is common in New Zealand. Lana explained...
why she believed students needed to complete activities in within-class ability groups: ‘They wouldn’t be able to cope with a task that I had set for the high ability so I do that to cater for where they are at.’ However, Holly, a high expectation teacher, expressed a different view: ‘The children can choose the activities they do, so they are not grouped for actual activities.’

There were similar views expressed when the teachers were asked about the kinds of activity they used with their low achieving students. Luke reiterated a similar idea to that of Lana: ‘A lot of repetition, every day . . .’ High expectation teachers communicated very different thoughts, as illustrated by this comment from Hannah: ‘They need activities that are challenging so they are motivated. If I don’t make them independent as well [as the high achieving students] they won’t learn to run by themselves. They’ll always need the teacher.’ I noted earlier that several high expectation teachers spoke of providing activities for low-achieving students that were challenging, stimulating or involved them in independently researching topics they were interested in, something I did not hear from any low expectation teachers. Instead, Lauren said:

There is a big difference between the activities for my high group and my low group. The work that my high group is doing is more advanced but my low group is reinforcing and practising the work that they are doing from day to day. My high group doesn’t do that.

Both high and low expectation teachers provided more thought-provoking activities for their higher-achieving students; the difference was that these activities were available to all children in classes of high expectation teachers, but were restricted to only high-achieving students in the classes of low expectation teachers. For example, Hannah explained:

For the high ability . . . to develop independence in their learning, the children can go to the learning centre and do the problem solution chart and really think about what they have read and things like that. The chart is there for everyone but mostly only the children working at higher levels will use it.

Hence, Hannah did not confine these activities only to her high-achieving children. In contrast, Lauren said:

I would be looking at more independent-type activities for my high-ability children compared to the low-ability children. Yes, I think just for my high-ability group I would be looking at more complex tasks, tasks that they would have to work on in a more independent way.

Heidi ran an individualized plan where she pulled students out who needed to learn a particular skill, and so there were no set instructional groups as such.
She managed the range of achievement in her class by having her students complete the same tasks, but she built some differentiation within those:

Like if we are making a booklet, they are all making a book. Some of them are making it for themselves. Some of them are making it to teach others with and things like that. I try to get them all to do roughly the same sort of activity but try not to make it obvious that they’re doing – well trying to differ the parts within that activity for each group rather than them all doing totally different work.

Placing students in within-class ability groups carries with it the implication that students have an ‘ability’, a fixed entity. This aligns closely with a belief that we each are born with a certain amount of intelligence, the concept of intelligence as fixed, rather than with the conception that, given appropriate learning opportunities, all students can learn and increase their intelligence – that is, the view that intelligence is incremental and can be increased (Dweck 2009). Perhaps predictably, the high expectation teachers, more than the low expectation teachers, appeared to believe that often students just needed motivating or redirecting in order to become successful. As Heather disclosed:

They may not all progress at the same rate because they put their energies into different things and then you have to say, well, have to talk about some goal setting and resetting goals and going forward again and then coming back and reflecting on it.

Perhaps because the high expectation teachers appeared to have a notion of ability as incremental, several expressed negative views about referring to students as ‘high ability’ or ‘low ability’. Helen expressed her opinion by saying: ‘Well as I said at the beginning, low ability to me is not a tag that I particularly care for. I would prefer to see it as greater needs.’ The low expectation teachers, however, frequently referred to students as high or low ability, with the teachers expressing views that those who were achieving at lower levels needed to move slowly through the curriculum, with much support from the teacher, whereas those achieving at higher levels could work more independently, as Lauren reported:

Those children usually have good independent work habits so with those children as long as you can spare five or ten minutes a session just to have a little quick chat with them you can then basically leave them after that.

High expectation teachers appeared to be aware that placing students into within-class ability groups could damage students’ self-esteem, particularly that of the low achievers, and was also restrictive in terms of potential progress. Heather revealed:
I think everybody has to be exposed to it [more advanced activity] or else I am differentiating and I think the effect will be difficult on the children who may be not quite ready for it, but you know they are still listening and they are still absorbing.

Within-class ability grouping has been associated with an erosion of self-esteem for students, particularly those who are placed in the lower-ability groups (Weinstein 2002; Hornby et al. 2011). Weinstein (2002) movingly illustrates in her book, with quotations from children, how it feels to be placed in a low-ability group and then labelled as such. Students clearly perceive that teachers think more is better in terms of ability, and that, if a student is deemed not to have ‘sufficient’ ability, they are not then valued by their teacher to the same degree as others who are perceived to have more.

The high expectation teachers had made a decision not to ability-group their students in the core curriculum areas for learning experiences, despite this being the accepted practice in New Zealand. They could articulate why they had made this choice and provide reasons. Within the expectation research, Weinstein (2002), in particular, has advocated mixed-ability grouping, based on her findings that some teachers did not differentiate in the ways they treated, interacted with, and catered for, all students. However, what of the research in the area of grouping? What is the evidence of whether or not it is good practice to sort students in some way for instruction? For the remainder of this chapter, I will present the evidence from research on grouping to explore more fully any advantages and disadvantages associated with grouping by ability.

What the research tells us

Differential opportunities to learn

One important component of any form of grouping is that it often results in the provision of differential opportunities to learn. Children may attain differing knowledge and skills simply because they are given differing learning experiences. When students who are considered low achieving are never given the opportunity to work on more cognitively demanding tasks, a lower level of achievement is likely to result (Kuklinski and Weinstein 2001). Indeed, research has shown that any small advantage that high-achieving students gain from being grouped is counterbalanced by detrimental effects on the learning of all other students (Houtveen and Van de Grift 2001), and there is research that suggests that high achievers are not advantaged by being placed in a higher ability group (Marsh 1987; Ireson et al. 2005).

The learning experiences delivered to upper achievement groups are characterized by more independent learning, with a focus on developing a range of cognitive processing skills. On the other hand, the students in low-achieving
groups often receive a more limited curriculum and are given less cognitively demanding work, less variety in the types of task they are asked to complete, slower-paced instruction, fewer choices of learning experiences, and far more repetitive skill-based practice exercises (Hacker et al. 1992; Marcon 1992; Timperley et al. 2002). Further, middle- and low-ability groups are far more likely than high-achieving students to report that the work that they are being given is too easy (Gamoran 1992). Teachers may differentiate because they believe that they are helping students and providing for their needs, but, unfortunately, this differentiation often leads to inequitable learning opportunities. Differentiation may also be the result of decreased expectations for those in lower-achieving groups.

Moreover, placing students in ability groups implies that students have a certain amount of intelligence, and so teachers need to provide for students at their level. A further implication is that, when students are placed in a particular group, this placement is unlikely to change – and, indeed, much of the grouping research shows that, once students are located in a particular ability group, they are unlikely to move (Good 1987; Rist 2000). The conception that ability is a fixed trait provides teachers with a ready explanation for the failure of some students to achieve and, at the same time, absolves teachers of responsibility for children’s learning (Eccles and Wigfield 1985; Hattie 2003b). When teachers believe that children whose skills are low cannot learn, they are likely to reduce their teaching efforts. In turn, it is this kind of belief that may lead to self-fulfilling prophecy effects (Good and Weinstein 1986; Weinstein 2002).

**Streaming, teacher beliefs and teacher expectations**

In many schools, students are ability-grouped by class, such that a whole class may be labelled above average, average or below average. Streaming is the term that will be used in this section to indicate ability grouping by class (also known as tracking or banding in some countries, and similar to setting in the United Kingdom). Gregory (1984) considers that low teacher expectations for low-achieving students are the most pernicious problem associated with streaming, and this lowering of expectations for those in lower streams continues to be identified in the literature (Hornby et al. 2011). Oakes (1985, 1988, 1990a, 1990b, 1992; Oakes et al. 1992), a leading researcher in, and strong opponent of, streaming, has shown how streaming can negatively affect, not only the learning opportunities provided for students considered low ability, but, ultimately and more importantly, their life opportunities. She found that this was particularly true for children from ethnic minority and low-socioeconomic groups, who tended to be unequally distributed in the lower streams and who received a ‘dumbed-down’ curriculum compared with middle-class students of similar ability. In one study, principals did not identify a single advantage for minority group students of being streamed (Hornby et al. 2011), and, recently, when I was speaking to some teachers about streaming, one commented to me that, when
students were streamed, the further down the streams you went, the browner the students became – a poignant acknowledgement of the unspoken inequalities associated with streaming.

In some schools in the United States, a further inequity related to streaming that has been identified (Oakes 1990a) is that teachers with more experience or those regarded as effective teachers are often assigned to the high-stream students, leaving the less competent teachers with the lower-stream students. Those who need skilled teaching the most, receive the least. Further, a possible consequence of assigning less capable teachers to the lower streams is that they spend more time managing student behaviour than they spend on instruction (Oakes 1985). Meanwhile, those in higher streams are receiving high-quality instruction and more of it, and, inevitably, they learn more than their peers.

In an attempt to move away from streaming, in which a cohort of students stays together for all curriculum areas, the United Kingdom adopted setting, whereby students are placed into groups by subject, and thus the groups can change for given subjects. Setting is normally adopted for mathematics and science, but may include the learning of a foreign language and English. Setting is not as common in other subjects, which tend to be heterogeneously grouped. Smith and Sutherland (2006) reported how students felt about setting. As in the United States, setting was found to encroach on students’ life chances. One student reported how her friend had been precluded from taking two sciences because she scored a half mark below the cut-off. Class work was not taken into account. It is assumed that this would result in the student having to choose a different academic direction when she had wanted to pursue the sciences. Considering the shortage of girls moving into STEM fields (science, technology, engineering and mathematics) (Watt 2010), this would seem a tragedy. Students also spoke of the pressure on students in high sets and of how students who misbehaved were placed in lower sets, regardless of examination marks. Many spoke of the arbitrary way in which sets were established, and there was clear resentment among students in relation to students in high sets whom others believed did not deserve to be there, as well as students who were in lower sets who believed they performed well in class work but not in examinations. The somewhat subjective way in which sets (streams and within-class ability groups) are formed was reinforced in a study by Ireson et al. (2005), who showed that, in all schools in their study, there was overlap between the achievement of students in different sets. Students achieving the highest level of passes in the Year 11 national examinations in English could be found in the top and second sets (of twelve), and students with passes in the mid range were found across the lowest, middle and top sets. Similarly, in mathematics, those with middle-level passes could be found in almost all sets. This meant that the sets were not achieving the homogeneity that was intended, and that, although all students in any set should have been at the same level, there was a spread of achievement. Overall, however, students placed in higher sets were advantaged, scoring higher in the national examinations in mathematics, science, and English. No advantage
from setting was found for the high achievers, however, once achievement was controlled, and the researchers found a slight disadvantage in biology for high achievers placed in a high set. Interestingly, it was the students who were mid range in Year 9 who were most advantaged in the national examinations at Year 11 by having been placed in a high set. This research, as in studies cited earlier, suggests that, when students are provided with the opportunity to participate in higher-level learning opportunities, they rise to those levels. This may be because of increased teacher expectations for students in higher groupings, it may be because students become more motivated and confident, or it may be owing to other factors. What we can learn as researchers and teachers is that, given the opportunity, students can achieve at levels that may not have been predicted by earlier achievement.

Principals acknowledge that assignment of students to streams is not necessarily accurate, and that students become disgruntled when they believe they have been overlooked for placement in what is seen as an elite group (Hornby et al. 2011). Interestingly, despite many arguing to maintain streaming, it has been shown to have very little effect on learning (d = 0.12; Hattie 2009). For all these reasons, and particularly because of the socially divisive effects of streaming that have been reported, in the United States, the National Association of School Psychologists (2006) publicly opposes streaming.

There are some attempts in the United States to abandon streaming, a practice that has been entrenched in parts of that country for many years. Burris and Welner (2005) reported the results for a district of New York that has moved away from streaming. In an attempt to close the achievement gap between white and African American students, the district began moving towards heterogeneously grouped classes, and, at the same time, the curriculum that previously had been taught only to the students in the highest stream was offered to all students. The aim was to increase student achievement overall in mathematics, science, social studies, English, and a foreign language – an ambitious project. To increase the readiness of students entering high school, the middle schools in the district needed to provide a much more rigorous curriculum, particularly in mathematics. The teachers set about offering advanced mathematics to all students, which had previously only been offered to the highest achievers. The schools set up mathematics workshops and after-school support for students who were having difficulty. Before entering high school, the students took an examination covering all the subjects mentioned above. The results were astounding; previously, approximately 23 per cent of African American and Latino students and 54 per cent of white and Asian students had passed the examination for entry into high school. By providing a more advanced curriculum in mixed-ability classrooms, those percentages rose to 75 per cent for African American and Latino students and 90 per cent for white and Asian American students passing the examination. The programme benefitted all students. The high schools in the district then also moved to implementing heterogeneous classes with an advanced curriculum, with similar results. They
also provided additional support for students in mathematics, science, and English. By the time the first cohort in mixed-ability classes at both middle school and high school were at the end of the final year, 82 per cent of African American and Latino students (up from 32 per cent when the schools were streamed) and 97 per cent of white and Asian American students (up from 88 per cent) passed the state-wide examinations, thus considerably reducing the achievement gap. Further, proportionately more African American and Latino students passed the examinations than the overall rate for the state for white and Asian American students. The authors concluded that what made this move to heterogeneous classes successful in terms of increased student achievement was that the teachers had high expectations for all students, the district put in sufficient resources to support the move away from streaming, and the teachers were committed to believing that all students could achieve well if they were provided with a high-level curriculum. Studies such as this one show very clearly that a lack of opportunity to learn and curriculum differentiation contribute to inequitable outcomes in schools in which students are streamed, because, once students are grouped heterogeneously and given an advanced curriculum, all can improve. This also contradicts an often-cited fear in relation to eliminating streaming. Advocates frequently state that, if students are in mixed-ability classes, the learning of the high achievers will be adversely affected, as there may be a dumbed-down curriculum, or the teacher will spend too much time supporting lower achievers. In this study, both the low and the high achievers benefitted from high-level learning opportunities.

**Within-class grouping**

Within-class ability grouping is, as I mentioned above, common in many countries. In a study of grouping practices in New Zealand primary school classrooms with teachers identified as excellent, the researchers (Wilkinson and Townsend 2000) concluded that low-ability students did not appear to be at any disadvantage. They reported that teachers often ensured that more instructional time was spent with these children rather than with those who were considered more able. Other researchers are not as enthusiastic about within-class ability grouping, however. By tracking a group of students over a number of years, Good (1987) reported that the streams that students were placed in at the secondary school level could be traced back to the within-class ability groups students were placed in at primary school. Again, there is a picture of little movement between groups, once students are placed at a particular level. Higher levels of teacher expectation effects also appear to be evident in classes that use within-class ability grouping than in those classes that do not (Good and Thompson 1998). Hattie (2009) has shown that, as with streaming, any advantages of within-class ability grouping are minimal ($d = 0.16$).

When students were asked how they felt about within-class ability grouping (Hallam et al. 2004), they appeared to be very aware of the group they were in...
and why they had been assigned to that particular group. Most accepted the
group they were in, although some students spoke about having parents who
had intervened so that they were moved to a higher group. Generally, students
preferred to work in mixed-ability groupings and were positive about the
benefits of working together and helping each other. Students also perceived
that working in mixed groupings provided additional opportunities to work with
more students than they might if they were in ability groups. Where students
were in the ability spectrum was much more accurately reported by students
when they were in schools that implemented between-class and within-class
ability grouping. In schools that used mixed-ability groupings, students were far
less accurate in their perceptions of their ability because ability was far less salient
in these schools. Self-esteem was maintained. Some ability-grouped students
spoke of feeling uncomfortable and upset about having been placed in a low-
ability group, and several students at the ability extremes reported teasing and
name calling by their peers.

In a further study of within-class ability grouping in mathematics, the
researchers (MacIntyre and Ireson 2002) tested the accuracy of the grouping and
student self-concept. Standardized testing showed that the assignment of students
into within-class ability groupings was very inaccurate. There was large overlap
in scores between all groups, even between the lowest ability group and the
highest. Teachers reported that they used their own assessments and social factors
in assigning students to groups. They acknowledged that some might be
misplaced, but, despite that admission, reported providing very different learning
activities for those in the high versus low homogeneous ability groupings.
Further, very few students changed groups once they had been assigned, even
though many were clearly misplaced. The researchers found a small but positive
relationship between student achievement in mathematics and student self-
concept and also noted that there was a statistically significant difference in the
self-concept of students in the high-ability groups compared with those in low-
ability groups, although some students in high-ability groups had lower self-
concept, whereas some in low-ability groups had a more positive self-concept.
Students whose beliefs did not match their achievement felt misplaced, such that
either they felt very pressured or they believed that they should be placed in a
higher group.

Why do teachers ability group?

Teachers who support ability grouping believe that they are able to make accurate
judgements about their students’ abilities such that they will be able to place them
into relatively homogeneous groups. One reason given by teachers for homo-
genous ability grouping is that it better enables them to manage the student
diversity in their classrooms; the teaching task becomes considerably more
manageable (Slavin 1987, 1993; Hanushek and Woessmann 2005). A further
reason is their belief that students learn more effectively when they are grouped
with those of similar ability (Hoffer 1992; Fuligni et al. 1995; Cahan et al. 1996). Some teachers believe that ability grouping enables them to better adapt the content to suit the readiness and needs of various students, particularly in curriculum areas commonly thought of as hierarchical, such as mathematics (Chorzempa and Graham 2006). Hence, proponents of ability grouping believe grouping increases student learning, because an appropriate pace and level of instruction can be provided (Hornby et al. 2011). One other teaching belief related to homogeneous ability grouping is that children’s self-esteem is better preserved under such an arrangement (Davenport 1993). The claim is that ability grouping allows low-achieving students to develop more positive attitudes about themselves and their learning, as they are working with peers of similar achievement.

Opponents of homogeneous ability grouping, however, present arguments related to the quality of instruction that students placed in low-ability groups receive. Teachers tend to form low expectations for students in the lower groups, which may result in a slower instructional pace, repetitive activities, constant review of prior learning, and the denial of a stimulating learning environment (Oakes 1992; Fuligni et al. 1995; Weinstein 2002). A related claim is that, when low-achieving students are grouped together, especially in classes streamed by ability, they may be denied high-quality peer modelling (Fuligni et al. 1995; Hornby et al. 2011). Students with behavioural difficulties may be placed with low-ability students, regardless of their actual ability (Oakes et al. 1992), just because teachers may also have low expectations for the achievement of poorly behaved students, but this may result in the classroom teacher spending important instructional time dealing with management issues. Indeed, Good and Weinstein (1986) reported an observational study in which teachers made 157 behaviour management statements to students in low-ability groups, but only 61 to students at the other end of the spectrum. Moreover, there is the further contention that the grouping practices themselves may contribute over time to peer groups that demonstrate increasingly negative attitudes towards their education (Obiakor 1999; Hornby et al. 2011). Some teachers believe that, rather than improving the self-esteem of low-ability children, when placed in within-class ability groups they are publicly labelled and categorized (Oakes 1988). Students are grouped according to a criterion that is socially valued – ability – and, hence, their grouping brings with it a status hierarchy (Gamoran 1992; Ireson et al. 2005).

However, many of the views above are those of researchers. Few investigators have asked teachers why they use within-class ability groups. In one study that did just that (Chorzempa and Graham 2006), the researchers reported that teachers who used within-class ability grouping believed that it better enabled them to support students’ learning. Among those who did not use this grouping arrangement, some cited reasons such as a lowering of student self-esteem if students were placed in lower-ability groups, and stigmatization. Interestingly, teachers with greater teaching experience were less likely to use within-class ability grouping than less-experienced teachers. Teachers reported asking all students comprehension questions, but admitted to spending more time on
instruction related to vocabulary, phonics, and phonics awareness with low-ability than with high-ability groups. It is concerning, however, that, compared with those in the higher-ability groups, students in the low-ability groups spent less time reading silently and more time reading aloud, more time answering closed questions rather than those requiring deeper levels of thought, read fewer non-fiction texts, were given less opportunity to choose their own reading materials, spent considerable time on non-reading tasks, listened to their teacher reading to them more frequently, and completed worksheets more often. Such practices are worrying because of the differential opportunities to learn that they create, and these kinds of strategy are behind many of the criticisms levelled at within-class grouping and any other form of sorting of students.

**Grouping: key ideas**

The brief review of the literature related to streaming and within-class ability grouping generally shows few positive benefits for students. This is concerning, as, in most countries, students are ability-grouped in some way. The chapter began by showing that high expectation teachers did not ability group in the same way as low expectation teachers. Although most did group for instruction, none grouped for learning activities. This more flexible grouping arrangement may help in providing instruction for students at their level (an advantage seen for ability grouping), while avoiding the strict stratification and negative psycho-social outcomes often associated with ability grouping. The next chapter will present some practical ways in which teachers can work with more flexible grouping arrangements, such as the high expectation teachers did.
As described in the previous chapter, high expectation teachers did not implement within-class ability grouping in the way in which that grouping arrangement has been traditionally employed, whereby teachers place students in homogenous ability groups for instruction and then provide separate learning activities for each group. As I explained through the research results presented in the previous chapter, within-class ability grouping has several disadvantages related to the differentiation of learning opportunities, potential for negative effects on student self-esteem for both high and low achievers, and the creation of a hierarchy in which students perceive those in higher-ability groups as being valued more by the teacher. To reiterate, some high expectation teachers used within-class ability groups for instruction, but none maintained those groupings for learning activities. Some did not use instructional groups at all; they worked with their students individually or drew students together and taught them a skill as they needed to learn it, and based their teaching on on-going formative assessment. The decision to operationalize instructional groupings by ability or not, but always to have a variety of learning activities available for all students, I will call ‘flexible grouping’. Flexible grouping refers to a teacher decision to be adaptable and accommodating about how students are placed in groups. In this chapter, I will describe how a classroom can be set up for flexible grouping and different ways of organizing the students and groups, and I will then explain the types of activity that can be made available for students. As the activities in this book are designed to be used with students in Years 4–8, some will be more suitable for younger than older students and vice versa. Readers are advised to select those that most pertain to the age group that they are working with, or simply to adapt the activities appropriately. Although flexible grouping can be used with any curriculum area in which teachers formerly used homogeneous
ability grouping, for example, mathematics, I will be concentrating on presenting ideas in relation to reading. Most of these can be easily revised for other curriculum areas.

The choice of activities to complete ensures that all students are engaged in challenging, enjoyable activities, rather than those in the lowest groups being confined to finishing low-level, repetitive activities. Further, allowing students the choice of who they work with means that students of varying ability work together, so that students benefit from peer modelling. Students often choose friendships based on their groupings; providing them with more choice helps to broaden the peer relationship network as well.

The flexible grouping classroom

One aspect of flexible grouping is that the grouping arrangements should be changed fairly frequently. I recommend changing groups at least monthly, but some teachers in the Teacher Expectation Project changed their groups weekly. Changing groups regularly is a great way to foster a sense of collegiality and caring in the classroom among students, a sense of classroom community. Students have the opportunity to work with everyone else in the class, and so they get to know each other and work together. One way to change groups is to have the students design name cards that are given to the teacher. The teacher then shuffles the cards and puts them on desks. Wherever the student’s name card is, that is where they sit. Another way to organize groups is to use what is called clock buddies (see Figure 9.1). With clock buddies, the teacher thinks of a range of ways of potentially grouping students. Each time the groups are due to change, the teacher spins the minute hand and changes students in groups depending on where the hand ends up. For ones involving favourites, teachers can have students list each favourite at the beginning of the year and then keep the responses for later grouping. In that way, students cannot manipulate the grouping to be with their friends. Students can also be grouped for particular projects. For example, the teacher could create groups based on common interests, such that each group explores and researches a particular topic and produces a group output. Groups can be socially based. Social grouping can be useful in classes that have several students with behavioural difficulties. That way, such students can be spread out and they can be paired up with a buddy or small group that has better work habits.

Preparing a reading area for flexible grouping

To create a reading area that will enable flexible grouping, teachers will need to gather together various resources that can become activities from which students can select. With many of these activities, the idea is that a wide range of reading abilities would be included within any activity. This means that students can
choose something at their reading level or something a little more challenging, depending on whether they are reading on their own or working with other students. The point is that who reads what is not being differentiated. All activities are available for all. The lists below will be familiar to many teachers, but demonstrate how easy it is to adapt commonly used activities for flexible grouping.

I have had feedback that students will choose books that are far too easy for them or far too hard. My overall experience is that this is not what happens. Students do not keep choosing books that are too difficult, because they will simply become frustrated; they do not consistently choose books that are too easy, because they become bored. A further point I would like to make is that there is almost a fixation on students having to be reading at their ‘correct’ level. Why? As adults, we do not do that. There are times when I read academic articles that have advanced statistical explanations beyond what I understand fully, or an article that is presenting a high-level theoretical construct or argument; I read those articles slowly and very carefully, perhaps going back over some points to grasp the meaning or to think more deeply about what is being said. This can

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**FIGURE 9.1** Clock buddies as a means of grouping students
be particularly so if the article or book is technical and not in my field. At other times, normally waiting at the doctor’s or in the hairdresser’s, I pick up a magazine, look at the headlines and skim through, reading something that takes my interest, looking at pictures, mentally doing an occasional puzzle. I do not read from cover to cover. In the evenings, I snuggle down in bed with a novel; sometimes something popular and girly, sometimes something more sophisticated. The point is, I never worry about whether what I am reading is at my reading level or not. I realize fully that my reading skills are well advanced by any measurement and that students are still developing readers, but surely the end point is that we want students to love reading; we want them to continue reading as adults. So why force them to read something they may have no interest in just because it is at their level? Students will work their way through something much more challenging if they enjoy the topic; they are learning all the time. And, if they pick up a magazine and skim through, looking at the pictures and then reading more when something about a picture interests them, does that really matter? They are emulating adult reading. The point is that they are reading – and the more they read, the better they will get at it.

For a flexible grouping system in reading to work, this does mean the teacher needs to gather and organize resources. However, once they are set up, there is no more work for the teacher than in a normal, within-class ability programme. In this next section, I will mention some resources that are worthwhile building up at a range of levels, and I will include more ideas as potential reading activities in a later section.

The reading area needs to be set up with a range of activities from which students will select. Of course, the first place to begin is with a class library. Having a range of exciting books available for students to choose from is always enticing. One activity box I have found works particularly well is a theme box. This is simply a box that has a range of books at different reading levels on a particular theme. For example, the theme may be dinosaurs, wild animals, insects, machines, inventions, famous sports people, women in history, how things work – the list is endless, and, of course, this is a reading activity that is easily adaptable for any age group. The theme box can be changed regularly, with the teacher selecting a new theme and new books during a class session in the school library.

Another possibility is a joke box. This can include joke books, but can also consist of cards that have one or more jokes on them. The students love creating these and adding to the box, and so this does not have to be a lot of work for the teacher. In a similar vein, there could be a poetry box that contains poetry books, commercially made poetry cards and teacher- or student-made poetry cards. If the cards are made by students, they can be decorated, illustrated and then laminated. This lets students know that their work is valued. They enjoy creating things for other class members to read. Creating poem cards or joke cards, or creating other class activities, is something that students can do when they finish work early, or can be an alternative to handwriting lessons for those whose handwriting is excellent anyway.
Additional boxes of reading materials can be pair/share boxes, which have instructional reading books at a range of levels that students can choose to read with a partner. Similarly, boxes can be set up with a range of readers that may still be in the school but that are no longer often used. New Zealand has what are termed school journals – small books that include a range of stories, poems and, normally, a play. Journals are levelled and are ideal for building up as box sets for students. The following website provides more information about school journals and also has a host of planning ideas for teachers that could be adapted for a range of books and contexts: http://literacyonline.tki.org.nz/Literacy-Online/Teacher-needs/Instructional-Series/School-Journal.

Another box set could comprise plays, which are often included within reading books. Students love to put on a play, so a week could be set aside occasionally for students to choose plays in groups, practise them and, on Friday, present them to each other. Alternatively, they could make puppets and present a puppet show. Other possibilities that can be built up over time are collections of magazines (possibly on a particular topic, such as sports or cars), or comics, or novels in a series – for example, Harry Potter, the Hunger Games books, the 39 Clues series, the Diary of a Whimpy Kid series, Dr Seuss books, Pick-a-Path books, books by Paul Jennings, Fancy Nancy series, the Judy Moody series, or the Usborne books: there are many possibilities. These can be purchased cheaply at school fairs or second-hand book sales. A further collection can be of items such as coupons, programmes, bus or train timetables – and there can be activities that students complete in relation to these: for example, planning a day’s outing using the bus timetable and possibly using brochures and/or researching on the Internet to find out what they would do when they arrived at their destination.

There are many excellent big books (see below) that are available commercially and that schools often have an abundance of. They can form yet another set of readers to be used during reading time. These are levelled from very early reading levels through to much more sophisticated and complex texts. Again, a set of these can be built up for the students to select from, perhaps added to each week, if the teacher is using a big book as part of the reading programme.

**Setting up the reading area**

It is important that the reading area is attractive to students. If possible, it should have some cushions or beanbags or a sofa, so that it feels homely and inviting. A large rug or piece of carpet is warm and welcoming. The reading activities should be displayed therein, so that students can select from them. There also needs to be a variety of activities available, although, as we will see later, I recommend restricting the activities that can be selected each day. Figure 9.2 shows one example of how a reading area could be arranged. Displays of children’s work can also help to brighten the reading area.
Organizing the reading programme

The structure for a reading session does not need to change a lot from what many teachers will already be doing. If reading lasts for 1 hour, then the first 10 minutes can be spent reading to students from a novel. Most students love being read to, and, if the book is particularly funny or exciting, the students will sit engaged and enraptured by the story. This can be a time to introduce older students to the classics and younger students to short novels that they will enjoy. Most teachers will have a few books that they have previously read to students and found to be particularly successful. Some of my particular favourites are: Jacob Two-Two meets the Hooded Fang, by Mordecai Richler, suitable for students aged 7–10; Tales of a Fourth Grade Nothing, by Judy Blume, suitable for 8–12 year olds; and Goodbye Mister Tom, by Michelle Magorian, suitable for 8–12 year olds. There are several websites that list teachers’ top 25 or 100 favourites and that are a further useful source of ideas.

The next 10 minutes of the reading programme can be spent in some form of shared reading or warm-up activities. This period may take the form of poetry or big books. In some countries, big books are available for all students of primary age, from 5 years to 12 years (Years 1–8). Although they are more readily accessible for younger students, there are some excellent ones at the higher reading
levels as well. Some of the high expectation teachers provided activities from the big book they were using for that week as their reading activities, such that all students became involved in the same activities. For example, the students created murals or wall stories, or they took on the roles of various characters in a story and were interviewed about their perspective, and news stories were created, or student groups created plays based on the shared reading book for the week. Again, the activities that can come out of these books are only limited by the teacher’s imagination – and available websites! However, if your school does not have access to big books, this could be a time for individual students or a small group to share books they have enjoyed. It could be that activities develop out of the current novel being read, or that the novel becomes the basis for some form of shared reading. For example, the book *Goodnight Mister Tom* is set in wartime England. With an older primary group, groups of students could investigate children in war, for example, and what happens to them. They could display their findings in some way, such as on a poster, and share that with the class. Of course, this may usurp one primary intention of shared reading: that it is also a teaching time, in which the teacher focuses on skill building. Instead, aspects of novels, such as author purpose, settings or themes, can form the basis for discussion and building understanding about how authors develop their stories and characters.

The remaining 40 minutes of an hour-long reading programme should be spent on reading activities and instruction. This period can be divided into four 10-minute periods, or it could be three 15-minute periods. For the teacher, each of these sessions will be spent with one instructional group, which could mean meeting with reading groups separately, or it could mean pulling out students to teach particular skills that they need to learn. The number of activities that students complete in a session is, therefore, equivalent to the number of groups the teacher wishes to work with each day. It is best, however, if a regular routine of either three or four activities is maintained. Further organizational considerations include deciding that, rather than meeting with all or most groups every single day, on one or more days the teacher will spend one of the 10- or 15-minute time slots just sitting with or monitoring individuals or groups, reading with them from their activities, talking about what they are reading, and reflecting on what those students need to learn next. Another choice that can be made by the teacher is to have a four-day programme of working with groups, but one day each week of having individual students read to the teacher. This can be a time for the teacher to do running records or simply a time to learn more about each student’s reading, in order to cater better for their needs. Regular monitoring was a feature of students with high expectation teachers, and, because students will most likely be learning and progressing more quickly than previously, there is a need for the teacher to keep up to date with where each child is at in their reading and how they are developing. During this time with individual students, the other students could be given free choice of three or more activities, designated by the teacher as possible selections for that day.
Having a range of activities available with which the students may not be familiar initially means the teacher will need to teach students how to use them. So it is important that time is set aside during the introduction to flexible grouping for instructing students on how they use these activities. It would be best to start with activities the students are familiar with and gradually introduce new ones. Teachers may already be using a range of activities, and so the newness of flexible grouping would be that students were working with a range of peers, rather than only with those at their instructional level. It is not advisable to make all activities available every day. This could result in chaos. There is no reason that the new organization needs to be any noisier or less well organized than any previous arrangement. Rather, restrict the students to about three or four activities per reading period, with students changing activities at the end of each 10- or 15-minute period when one group has been working with the teacher. One way of organizing this is to have a list of available activities in two columns, perhaps on an A3 or A2 sheet of coloured card, and to use coloured pegs to indicate the three or four that students can choose for that day. The activities can change daily, but they do not need to. The same four could be available all week and then changed for the next week, or the activities could rotate, whereby one new activity could become a choice each day and another one dropped, so that there was a continual rotation of activities. At some stage during most reading sessions, the students will spend time in instructional reading with the teacher, in whatever way this is organized. The time at which a group comes together to work with the teacher can be the same time that the other students move to another activity.

The teacher can choose to allow students to simply choose the activities they want to engage in each day, or this can be more organized, whereby students are assigned to different activities in their social groupings – and within that assignment, some activities may be group activities, whereas others will be paired or individual (see the ideas below). It may be that the teacher chooses to pair students up, as one of the high expectation teachers did, with the first and third quartiles and second and fourth quartiles working together in pairs on the activities. Whatever the arrangement, the important points, from the teacher and student perspectives, are that all activities are available for all students, and that there is a variety of reading levels contained within each activity.

A further way of organizing the students is with a reading contract, which can have a list of the types of book students need to read and record, within a month for older students, and with fewer and simpler choices for younger readers. For example, older students could have a chart displaying twenty to twenty-five different reading choices where they would record the titles of what they read, including genre, such as science fiction, historical novel, fairy tale, comic book, recipe book, non-fiction, autobiography, newspaper article, series book, poetry, and so on.

A similar idea to this is tic-tac-toe, which is based on one text (Figure 9.3). The teacher creates a $3 \times 3$ grid. Students select three activities, either across, down or diagonally, but cannot just choose randomly. By carefully placing the
activities in the grid, the teacher can ensure that students are covering a range of different types of activity and skill, but that the students are still able to make choices. The teacher could also have easier or more challenging activities along one diagonal, row or column. A free space enables students to suggest their own choice (with teacher approval). The tic-tac-toe example in Figure 9.3 is based on Aesop’s fable *The Lion and the Mouse.*

### Selecting the reading activities

Reading time should be simply that – a time for reading and not too much else. As I said earlier, the more students practise, the better they will become. However, some teachers like to include both reading and follow-up or other written activities within their reading programme. Hence, below I will describe a range of possible reading-related activities as a starting point for developing further activities. Later in the chapter, I will provide a list of possible reading activities in the form of a table for quick reference (see Figure 9.9). A few of these activities are described below; however, if it is obvious what they are, I will not provide any further description.

<table>
<thead>
<tr>
<th>Flexible grouping: practical applications</th>
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<thead>
<tr>
<th>Create a flow chart or an illustrated news board to show the sequence of events in the story</th>
<th>Use a digital recorder or tablet to record yourself retelling the story for a group of five year olds</th>
<th>Write a paragraph to describe how you think the mouse was feeling when he was in the claws of the lion</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are the author. Change this story so that it has a different ending</td>
<td>You may complete your own activity related to the story</td>
<td>Do some research on the following aspects of rodents: description; habitat; eating habits; enemies; other interesting information</td>
</tr>
<tr>
<td>Using graph paper or cardboard, design a maze for a pet mouse. All your dimensions need to be recorded on your plan</td>
<td>Write a poem, song or rap to celebrate the lion’s escape from the hunters’ snare</td>
<td>Choose three events from the story. Create frieze frames for each of them</td>
</tr>
</tbody>
</table>

**FIGURE 9.3** Tic-tac-toe reading activities chart: *The Lion and the Mouse*
Reading-related activities

The following list of twelve reading-related activities is provided as a beginning point for teachers wanting to further develop their reading programme:

1 Within the reading corner or elsewhere in the classroom, a challenge corner can be set up. This should be changed weekly and can consist of activities such as a jigsaw puzzle that students add to through the week, crosswords, who-dunnit mysteries, science experiments, activities students suggest, invent a . . . and explain how it works, or activities based on a theme.

2 A book club can be set up between or within groups or pairs, whereby students choose a book to read. After reading it, they share what the book was about with a group, discuss the book and encourage the other students to ask questions about the book. They then prepare a written summary of the book. This can be either in their own reading exercise book or on a sheet of paper, or on a computer and printed out, so that it can be placed in a book club folder to be shared with the class.

3 As evidence of what students have read, they can keep a reading log or journal or reflection on each book they have read.

4 Reciprocal reading is a strategy that was originally developed by Palincsar and Brown (1984) and has been found to be effective in raising student comprehension. The teacher does need to teach and model reciprocal reading for students before they can conduct it on their own. It involves four students who each have a role (summarizer, questioner, clarifier and predictor). The students read a few paragraphs of a text, which could build to reading a chapter if they are older students. The summarizer then outlines the main points of what has been read; the questioner seeks clarification about aspects of the text that were unclear or confusing; the clarifier responds to the questions that have been asked; and the predictor then guesses what information will be presented next or, if it is a fictional story, what will happen next. The students can then read a further section that same day or the next day; the roles change each day, so that, over time, all students take on all roles. It is useful if the teacher provides scaffolds for students that they can refer to for support or ideas. It is also helpful for students if the teacher takes on one of the roles initially, for a few days, until students become familiar with how reciprocal reading works.

5 Students can represent what they have read in some visual form; for example, in a drawing, in a PowerPoint presentation, by acting it out, through a wall story or through a mural.

6 Students can be provided with question prompts (Who? What? When? Where? How?). After completing a book, students expand each question in relation to their book and answer each question. These questions could also be used as prompts for students to interview each other about a book or
about characters within the book. Students could also assume the identity of a particular character and be interviewed from the perspective of that character.

7 The teacher can form a knowledge web (see Figure 9.4), which could be used, for example, alongside the theme box, with students choosing activities to complete.

8 Students can create a concept map related to facts in a non-fiction book or to themes in a fiction book, or they can make up a character, location map or timeline for a fiction book.

9 Students can read several books by one author, briefly review them, and then research and write a report about that author.

10 Students can create character chains, which can be suspended in the classroom. The face of the character forms the first part of the chain, and the student can add labels below, in a chain, with personality characteristics of the character on one side and physical attributes of the character on the other.

11 Students can create books themselves based on one they have read, which they can share with others in the class or with students in a more junior class.

12 Students can read a fiction book and create a chart that lists fact and fantasy, or they could list facts and opinions from a magazine or newspaper article.

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**FIGURE 9.4 Creating a knowledge web**
Activities for mixed-ability groups

Most of the activities listed above either can be used by individuals or can be completed in pairs or in mixed-ability groups. However, there are alternative activities that could be interspersed throughout the year periodically, to take the place of the regular activities described above. As one example, the teacher can create a study around a novel, whereby the novel is read by a group of mixed-ability students, and the students then complete a series of activities together related to the novel, such as creating a time sequence, a dust cover, character chains, role plays, cartoon strips, a news report or radio broadcast, a trailer for the book, a cube story, and so on. Alternatively, the teacher can read one of the classics to the students (e.g. *The Hobbit*, *The Silver Sword*, *The Adventures of Tom Sawyer*, *The Wind in the Willows*), with students then summarizing each chapter in three to five sentences, identifying new vocabulary, identifying themes, illustrating settings or writing descriptions of some of the characters.

Current events also lend themselves to group activities. Students can begin by investigating the various forms of media presentation; that is, news reports on the radio and television, online and in a newspaper. In groups, they could then engage in a number of the following activities, depending on the teacher’s preference: prepare a written news report; prepare a radio or television broadcast; use the newspaper or the Internet to map national and international places mentioned in the news; create demographics related to one or more countries that are in the news; choose a political, educational or environmental issue in the news and create an interview with different parties, reflecting different viewpoints; create a timeline of how events have unfolded in relation to a particular news event; paraphrase a news item so that it would be suitable for younger students; create a newspaper.

Similarly, students could work in project teams or as a class to produce a range of outputs centred on one topic. In this case, the students could work together based on common interests, and the outputs would involve using a range of media to present findings. Figure 9.5 shows a class display related to a book, *Holes*, where students have chosen to create a poster or presentation either related to the book or the author. A further example is provided in Figure 9.6, where students researched Shakespeare and had great fun creating Shakespearian insults, which were decorated and put on the wall: for example, ‘thou spleeny fly-bitten bugbear’, ‘thou craven common–kissing scut’, ‘thou limpish toad-spotted skainsmate’. Figures 9.7 and 9.8 provide one example of where the teacher decided the topic – planets – and the students, working in groups, researched and recorded facts about the planets, created pictures of the Roman gods corresponding to the planets and summarized the legends related to the gods, painted pictures of the planets and spaceships, and wrote poems about the planets.
FIGURE 9.5 Whole-class display of an author and one of his works

FIGURE 9.6 Fun with words: whole-class display of Shakespeare’s life and language
FIGURE 9.7 Hanging display of the Roman gods from whom planet names were derived

FIGURE 9.8 Display of the planets of our solar system
Daily reading activities

The daily reading activities mostly lend themselves to students working in pairs or individually. Figure 9.9 lists many of the activities that were explained in more detail earlier in the chapter. If a teacher chooses to include these activities on a chart, using coloured pegs or clips to indicate which ones the students are to complete each day, the information in Figure 9.9 could be printed on the chart. Any activities with which students were not familiar would need describing by the teacher, in the manner in which the activities have been explained above. I will provide further description for some that have not previously been explained.

The mini-read box can be made up of instructional readers that the students have already read or of readers available in the school but little used. The make-

<table>
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<th>DAILY READING ACTIVITIES</th>
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<tr>
<td>Pair/share</td>
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<tr>
<td>Big books</td>
</tr>
<tr>
<td>Theme box</td>
</tr>
<tr>
<td>Challenge corner</td>
</tr>
<tr>
<td>Joke box</td>
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<tr>
<td>Series box</td>
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<tr>
<td>Make-it box</td>
</tr>
<tr>
<td>Just read</td>
</tr>
<tr>
<td>Comics</td>
</tr>
<tr>
<td>Non-fiction</td>
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</tbody>
</table>

**FIGURE 9.9** Example of a chart of daily reading activities

147
it box contains books or cards with instructions that students follow. For example, origami books can be good. ‘Just read’ means that students can choose from any reading box and – just read! Buddy read can be interpreted similarly, except that students are reading together. The inventions box has cards that describe items students can invent. For example, they can be asked to design a bicycle that stops you from getting wet, a hat for rain and sun, or a mousetrap that does not leave a dead mouse behind. Some of the chindogu websites have some fun ideas. Alternatively, students can invent something of their own, draw it, and explain how it works. Finally, there are many, many websites that can be useful for thinking of reading activities and related tasks. I have found this one to be particularly useful for some quick ideas: www.readingrockets.org/article/82.

The voice of practising teachers

I acknowledge that establishing a reading programme using flexible grouping will take some work. However, it is well worth it! The intervention teachers in our Teacher Expectation Project frequently tell us how useful they have found it, and how much they have seen their students progress since the introduction of flexible grouping, as the following quotations show:

- ‘[Flexible grouping has] given them [students] greater ownership of the activities and has raised the bar in their learning.’
- ‘Flexible grouping in all curriculum areas dissolved the notion of “top” group or “bottom” group and was also less likely to result in cliques.’
- ‘My students are much more engaged in their reading and maths since I introduced flexible grouping. Students no longer worry about what group they are in.’
- ‘I can almost see my class learning now. They are making fantastic progress.’
- ‘I have noticed a change in “tone” within the class and cannot believe how independent my students have become – to the point that I sometimes just need to sit back and observe.’

And finally, from a student, about his improvement in reading: ‘The reason why I think I improved is because last year I used to be in one of the lowest levels, and now I’m in one of the highest groups and I’m a tutor 😊.’

The previous chapter introduced high expectation teachers’ reasons for not using ability grouping, along with the research that supported their view of the detrimental effects of such grouping. The current chapter has introduced practical ideas that teachers can use when their classes include flexible grouping. The next aspect of the Teacher Expectation Project is the class climate. The high expectation teachers created very positive classrooms, and the next chapter examines their reasoning for doing so, along with the research evidence in favour of developing positive, collaborative classrooms.
In Chapter 3, I described how a meta-analysis by Harris and Rosenthal (1985) found the psychosocial climate of the classroom (which they termed ‘affect’) to be of such consequence in the expression of teacher expectations that, following their findings, researchers began investigating the role of affective behaviours in the mediation of teacher expectation effects. Classroom teachers have responsibility for a complex social system, the major social organization that students experience during their childhood and adolescence. Within the classroom, students learn how to interact and work with others; they learn what is expected of them to function effectively in a community and how to meet obligations; and they learn how to solve social issues. Teachers manage the social as well as the academic framework of the classroom, and part of their role involves fostering the social behaviours of students. Hence, the teacher needs to establish positive classroom relationships with students, because these result in students engaging in learning (social and academic). A significant part of what guides the process of planning and decision-making is the development of a productive classroom climate (Pianta et al. 2008). Significantly, too, the teachers who had high expectations for all their students (high expectation teachers) appeared to value the class climate as contributing to student learning.

**Class climate: the voices of teachers**

The affective climate in the classrooms of high expectation teachers is quite different to that of teachers who have low expectations for the whole class (low expectation teachers) (Rubie-Davies and Peterson 2011). In the classes of low expectation teachers, differences in ability were made salient through the use of within-class ability groups, differentiation of activities, and students being assigned to work with those regarded as having similar achievement; this quite
possibly contributed to an environment in which some students believed they were more valued than others. In contrast, the high expectation teachers introduced several mechanisms to ensure that their students were engaged and interested in learning. These will be described more fully in Chapter 12, but they included focusing on mastery goals and on using student interests to generate motivation. Hence, the emphasis appeared to be on cooperation rather than competition.

Further, because the students with high expectation teachers worked in mixed-ability groups that changed regularly, all students worked with each other. This might have fostered a more congruent classroom community in which students developed relationships with a range of peers, in contrast to students in the classes of low expectation teachers, who would have been much more likely to develop relationships only with those in their ability groups. In these classes, group changes were rare, and the groups operated as separate islands, where engagement with others was minimal. As Helen, a high expectation teacher, explained: ‘I often pair them up and mix them up because they make a lot of gains that way.’ Because the students were used to helping each other and working together, there appeared to be a supportive climate in the classes of high expectation teachers. This is illustrated in the following statements by Hannah and Heidi, both high expectation teachers. Hannah said: ‘The girl that is still on emergent [early reading level], well they all want to buddy with her and help and she feels special because of that I guess.’ In similar vein, Heidi stated: ‘They seem very supportive of each other . . . I think consciously they try and help each other if they know they need help and things like that.’

Many of the high expectation teachers appeared to recognize the value of creating a positive and caring psychosocial climate. Many seemed to actively endeavour to promote student self-esteem. Helen observed:

There are times when we applaud you’re a good artist and you are good at throwing the ball and I am very, very careful that they all have an opportunity to shine in something . . . I think for self-esteem it’s important to be high ability in something.

In contrast, Lana, a low expectation teacher, stated: ‘That is my main goal to build their self-esteem up’, but she was unable to provide any example of how she did this.

Another difference between high and low expectation teachers that highlighted a more positive environment in the classes of high expectation teachers, which I described in Chapter 6, was in the responses that teachers gave when students answered questions incorrectly. In the classes of high expectation teachers, even when students were initially unsuccessful, the teachers scaffolded them to success, and the students probably felt positive about themselves. Students with low expectation teachers who were not successful were not given any opportunity to be so.
A further area in which both types of teacher differed was in their behaviour management (also presented in Chapter 6). Overall, the high expectation teachers tended to deal with any issues far more positively than did low expectation teachers. They were far more likely than low expectation teachers to make statements likely to prevent poor behaviour from occurring. Again, the high expectation teachers set their students up for success, and this likely created a much more positive class climate for students. In one study, Baker (1999) reported double the number of negative behaviour management statements in the classrooms of students whose satisfaction with school was low compared with their high-satisfaction peers. She showed that there was a relationship between student satisfaction with school and a caring, supportive psychosocial environment in the classroom.

**Relationships in the classroom**

The classroom climate is a measure of how warm and caring the relationships are that students have with the teacher and with their peers. The more positive the relationships, the more emotionally supportive the classroom climate. The psychosocial climate in the classroom partly depends on the expectations that the teacher communicates about the ways students are expected to cooperate, and on the teacher’s expectations for classroom interpersonal relationships. Moreover, the ways in which students respond to classroom learning experiences are probably also related to the expectations that the teacher has about their relevance and interest value (Wigfield and Cambria 2010). Weinstein and McKown (1998) suggested that, when teachers created a psychosocial climate that provided challenging learning experiences and clear learning goals, students were likely to respond with high intrinsic motivation and a determination to be successful in their learning. Moreover, when students were given a wide range of alternative learning experiences where they could experience success, the affective classroom environment was warmer and more supportive (Butterworth and Weinstein 1996).

When Dirkx and Spurgin (1992) interviewed teachers about their adult students who were learning to read, they found that first, the teachers considered students’ psychosocial needs as barriers to their learning, and second, that the teachers believed that unless they could meet the students’ needs, the students would not be successful academically. Wigfield and his colleagues (1999) described how teachers reported that they enjoyed working with white and Latino children more than they did with African American children. Similarly, Solomon et al. (1996) reported that teachers in lower socioeconomic areas saw the climate in such schools as being less positive and stimulating, but the researchers reported that the teachers were less warm and supportive towards the students. Keogh (2000) further suggested that teachers were more likely to provide a positive psychosocial environment for students whose temperaments made them easy to relate to. This may explain why disruptive students are often
found in the lowest-ability groups, regardless of their actual test scores (Taylor 1993). However, Hamre and Pianta (2001) have shown that, when the teacher–student relationship in first grade is marked by negativity, this predicts students’ academic engagement and behavioural adjustment right through to eighth grade, even controlling for the earlier behaviour. Hence, the relationships that students develop with their teachers are critical to both their academic and social adjustment.

### The classroom climate and teacher expectation research

Much of the research into teacher affect and the classroom climate has found evidence of teachers’ discriminating behaviour towards students, depending on whether a student was one for whom the teacher held high expectations (high expectation student) or low expectations (low expectation student). The differentiation is primarily non-verbal or emotive, and teachers may not be fully aware of the distinctions they are making. For example, Babad (2009) reported that teachers tended to provide high expectation students with more emotional support than they did low expectation students, and Weinstein (2002) has suggested that low expectation students experience less-positive verbal and non-verbal interactions with the teacher. Teachers tend to be less warm and friendly towards these students. Cooper and Good called such differences ‘wholly undesirable’ (1983: 15).

Teachers, however, have become acutely aware of the expectation research and the findings about the instructional support given to high and low expectation students. This may be why the later research has tended to uncover teachers spending more time with low expectation students than with high expectation students (Good and Thompson 1998; Babad 2009). Babad (1998) has suggested that the quantity of time spent with low expectation students appears to have increased, but the quality of the psychosocial interactions do not appear to have similarly improved. He found that, although teachers could control their verbal interactions, they were far less adept at controlling their body language and facial expressions (Babad and Taylor 1992). Furthermore, Pellegrini and Blatchford (2000) indicated that, because teachers were often concerned about the behaviour of the low expectation students, their interactions were often related to behaviour management rather than being learning related.

Much of Babad’s work has been devoted to exploring the subtle verbal and non-verbal cues that teachers provide, which in turn lead students to interpret these as expectations for their achievement (Babad and Taylor 1992; Babad 1993, 1998). His investigations have shown that, whereas teachers report providing more emotional support to low-ability students, students perceive the opposite (Babad 1990, 1995). This is not to say that low expectation students receive negative emotional support. On the contrary, Babad (2009) reported that teachers did endeavour to display warmth and emotional support towards low expectation students. Students were able, however, to determine that such displays were not
genuine, because they were exaggerated, whereas teachers’ natural affection for the high expectation students was interpretable by students, despite teacher attempts to control this (Babad 1998). Babad reported that students resented differential emotional support, and, in classrooms where this was more obvious, the students expressed a desire not to remain with that same teacher for the following year (Babad 1995). This was particularly so in the classrooms where teachers reported having ‘pets’ (Tal and Babad 1990; Babad 1995). As Rosenthal (1991) intimated and Babad (1998) concurred, the privileged affective environment of the high expectation student is a major component of the expectancy issue. A supportive, psychosocial environment is important for any student’s sense of security and self-worth (Wentzel 1997). A warm, affective classroom provides the secure environment necessary for students to take risks with their learning, to be motivated to achieve, to be successful at their level, and to want to continue to learn.

The psychosocial climate of the classroom may be framed within the context of classroom expectations, rather than through the dyadic teacher–pupil interactions (Eccles and Wigfield 1985; Babad 1998). Indeed, any positive expectations expressed to individuals may be lessened by an interpersonal atmosphere portraying lowered expectations (Good and Thompson 1998). The classroom climate communicates to students the expectations for the interpersonal relationships in the classroom and expected levels of student cooperation and peer support. It may also affect student motivation for, and interest in, learning experiences. A psychosocial climate that emphasizes cooperation rather than competition and individual learning goals rather than comparative achievement creates quite different classroom expectations to an affective environment that focuses on the counterpart of these. Weinstein (2002) has provided many examples of how students interpret the psychosocial climate of the classroom. For example, students report more trust, responsibility, and caring shown towards high rather than low expectation students. Weinstein has also shown that the relationships that peers have with each other often reflect the relationships that teachers have with individual students. Hence, when the class climate is positive, student relationships are also likely to be constructive; the teacher creates a classroom community.

**Background research in the class climate field**

Although Babad, in Israel, and Weinstein, in the United States, are the principal researchers who have investigated teachers’ affective responses to high and low expectation students, other researchers outside the teacher expectation field have investigated the important role of the psychosocial climate that the teacher provides for enhancing student learning. The findings from studies such as these also provide useful clues as to the importance of the emotional responses in the classroom in the portrayal of teachers’ expectations for the learning of students. Interestingly, however, it is only really in the twenty-first century that research...
into class climate has blossomed. By comparison, only a handful of researchers in the 1980s and 1990s were exploring the network of relationships in classrooms. For many decades, a large investment in research has gone into discovering what makes for effective pedagogy, and there is now clear evidence for what makes an effective instructor. However, despite this knowledge, student achievement has not improved a great deal. It may be because of this that researchers have increasingly turned to investigating the class climate as a possible conduit to improved student achievement.

In a series of meta-analyses, Hattie’s work (2009) provides support for the class climate as being strongly related to student achievement. He found that positive student–teacher relationships had a $d = 0.72$ effect on student achievement, a large effect. This is as large as some of the strongest pedagogical effects, such as teacher clarity ($d = 0.75$), feedback ($d = 0.73$), and reciprocal teaching ($d = 0.74$). As well as this, all the meta-analyses in Hattie’s book that relate to the class climate – for example, building student self-concept, motivation, engagement, classroom cohesion, peer relationships, peer tutoring, teacher expectations, and cooperative learning – have effect sizes above $d = 0.4$ on student achievement. Many pedagogical practices do not: for example, whole-language teaching ($d = 0.06$), teacher subject-matter knowledge ($d = 0.09$), ability grouping ($d = 0.12$), problem-based learning ($d = 0.15$), and web-based learning ($d = 0.18$).

Wentzel (1991, 1997, 1999) began researching what she called ‘pedagogical caring’ in the 1990s. She has shown that the perceived caring of teachers towards their students has been linked to students’ reported internal motivation and to their effort in academic tasks. In a longitudinal study of students from sixth to eighth grade, Wentzel (1997) explained how student pursuit of pro-social and social responsibility goals and academic effort was strongly related to perceptions of their teachers as caring. The students defined such teachers as those who modelled caring attitudes, whose expectations were based on student individual differences and who provided constructive and nurturing feedback (Wentzel 1997, 1999). Nieto (1996) and Noddings (1992) also described teacher caring as being a crucial component for students’ academic success.

Murdock (1999) conducted a study of middle school students to ascertain children’s perceptions of their teachers’ expectations for their academic performance and their behaviours towards the students. The researcher reported that the largest correlations were between students’ reports of their motivation and their perceptions of their teachers’ expectations and between these same expectations and their own behaviour in class. Murdock (1999) suggested that these appraisals may reflect perceived interest and respect by the teachers, and that perhaps students responded to such appraisals with a corresponding lack of motivation and poor behaviour when they perceived low teacher expectations for their future academic achievement. In a review of three separate studies, Muller et al. (1999) also reported that, when students felt that their teachers cared about them, this was a moderately strong predictor of their own expectations for their learning.
In a New Zealand study, Bishop and Berryman (2006) interviewed Māori secondary school students about why they were not doing well in school. They most frequently cited poor student–teacher relationships, low expectations of teachers for the students’ achievement, and a lack of respect for them as Māori. The programme that developed from these findings (Te Kotahitanga) was centred on developing positive relationships between students and teachers, respect between teachers and students, and high expectations – enhancing the class climate. The improvement in Māori achievement has been pleasing, and, as a result, the initial pilot was expanded from twelve to fifty secondary schools. The programme has also been introduced into Canada.

The work of Robert Pianta

Relationships are clearly crucial if students are to function effectively in a classroom and achieve well. Pianta began studying teacher–student relationships in the 1980s and, at that time, concentrated on children in early childhood settings. He explored teacher–student relationships and how well they predicted students’ successful transition to early childhood settings and then to kindergarten (the first year of schooling in the United States). Since that time, his work has expanded to the point where an observational system he developed (the Classroom Assessment Scoring System (CLASS)) is now used in every Head Start programme in the United States (an explanation of the Head Start programme can be found in Chapter 2, Note 1). Further, the professional development programme that Pianta developed, entitled My TeachingPartner, is now widely used, along with CLASS, in both primary and secondary schools. Because he is probably the pre-eminent researcher in the field of class climate research in school settings, the remainder of this chapter will focus on summarizing some of his work and findings in relation to the primary context. His work clearly illustrates why it is that high expectation teachers promote a positive classroom climate and build strong relationships with their students.

Relationships between teacher qualities and social and academic outcomes of students

In a descriptive study that examined the consistency of teacher relationships with students from kindergarten (first year at school) to Grade 1 (second year at school), Pianta and Stuhlman (2004) showed a modest relationship between teacher ratings from one year to the next. Teachers ($N = 490$) rated how close they felt to the students in the study and they reported the degree of conflict that they experienced. Because the association was modest, this suggests some variation in ratings; that is, not all teachers rated the same students similarly. Further, there was a trend for the ratings for both conflict and closeness to decline from kindergarten to Grade 1. Ratings for conflict, however, were more stable than ratings for closeness, which suggests that teacher perceptions of closeness
to students may depend on the alignment between teacher and student personality variables. Teacher perceptions of their relationship with students were also associated with several student academic skills in Grade 1, suggesting that teachers report warmer relationships with students who are more competent.

However, although it is interesting to discover the quality of relationships that students enjoy with their teachers, another concern of researchers and teachers is whether academic outcomes are affected by the class climate. Pianta and his colleagues (Pianta et al. 2008) completed individual reading and mathematics standardized tests on 791 students aged 54 months and then tracked them through Grades 1, 3 and 5, to determine whether the quantity and quality of instructional support and emotional classroom support that students experienced were related to their achievement trajectories in reading and mathematics. The study controlled for student background factors such as gender, poverty status, and prior achievement, so that any findings related to the value-added gains of students were dependent on the support they received. Perhaps predictably, the more time students spent learning mathematics, the greater was their achievement by the end of fifth grade. However, in classrooms that were emotionally supportive in fifth grade, students achieved even better mathematics results. The results in reading, however, proved to be more complex. For a group of students \((n = 235)\) who made rapid progress, neither the quantity nor quality of instruction predicted their reading achievement in Grade 5. For the larger group of typical students, in Grade 1, in classes where the emotional support was low but the quantity of reading instruction was high, this was related to fewer gains for students. In third and fifth grades, however, greater levels of emotional support were associated with better achievement outcomes in reading. This study suggested that, when students felt comfortable and supported in their classrooms, they learned more, and it therefore indicates that, if schools wish to enhance student achievement, class climate factors need to be taken into account.

As I have indicated in relation to high and low expectation teachers, the class climate can vary considerably from one classroom to another. An additional component of the work of Pianta and his colleagues has involved identifying the types of classroom that are emotionally supportive of learning. Using cluster analysis, which statistically groups individuals who are similar on a range of characteristics, Stuhlman and Pianta (2009) were able to identify four types of first-grade classroom. Classrooms \((N = 820)\) were rated according to the following criteria: sensitivity and a positive class climate, effective classroom management, quality literacy instruction, quality evaluative feedback, over-control, and a negative emotional climate. The first group of teachers (31 per cent) fell into a group in which the emotional climate was positive, but the academic demands were low. These teachers did not provide feedback based on mastery learning, were not focused on enhancing student understanding, and were not encouraging of students trying new strategies. Another group (23 per cent) comprised a group where overall classroom quality was high. This group was rated well
above the mean on the four positive factors and well below the mean on the negative factors. These teachers were found to be sensitive to students, demonstrated effective behaviour management, provided meaningful feedback to their students, and either rarely or never demonstrated over-control or a tone that was emotionally negative. The third group of teachers (28 per cent) was described as mediocre. Their scores in each category were below the mean for all criteria. Hence, these were teachers whose classroom climate was less positive than the mean, they had fewer class management skills, the quality of their literacy instruction was lower, and their feedback was less learning-focused, but their classrooms were also less negative and over-controlling than the mean. The final group (17 per cent) showed low overall quality. Although they rated well below the mean on all positive factors, they were well above the mean for the two negative ratings. Hence, in similar vein to the teacher expectation research (e.g. Weinstein 2002; Rubie-Davies et al. 2007; Babad 2009), this study showed that clearly distinguishable types of teacher can be identified, and that the differences exhibited by different teachers are likely to result in students experiencing very different academic and psychosocial environments, depending on whose classroom they are placed in. Considering how critical the teacher is to student learning (Hattie 2009), it becomes important to reflect upon teacher emotional and social quality.

In a follow-up to the study above, Wilson et al. (2007) assessed the social competence of students in the classes of teachers who fell into the four above-mentioned groups. The children of high-quality teachers demonstrated better peer relationships and more self-control than students in either the mediocre group or the low-quality group. Classroom observations confirmed the superior social competence of students with teachers in the overall high-quality group. Students whose teachers provided high-quality emotional and academic support scored significantly higher than those in classes where the class climate was positive but the teacher feedback was not strong, those in the mediocre classes and those where the quality of the class climate was poor overall. In turn, students in the classes that were emotionally supportive but lacked feedback quality and those in the mediocre classes were rated significantly more positively for social competence than those in the classes of low quality overall.

As well, this study examined the social competence of students who had been identified as at risk of behavioural difficulties in kindergarten. These findings were also in the expected direction: at-risk students showed significantly better social relationships and self-control when they were in high-quality classrooms than if they were with teachers rated mediocre or low quality. These results were found after controlling for student background factors and previous risk, and so they are a clear indication that the teacher can make a difference to students’ social competence. Students become more engaged, independent, warmer, and more emotionally secure when teachers are warm, positive, and sensitive to their students’ needs, manage their class effectively, have high expectations for all students (i.e. academic demands are high), provide clear and useful feedback, and
encourage student autonomy – qualities that are very similar to those exhibited by the high expectation teachers.

**Student relationships, student social development and at-risk students**

Hamre and Pianta (2001) followed 179 students to determine whether their kindergarten teachers’ reported relationships with the students predicted outcomes at eighth grade. Data collected each year from school records were student academic grades, standardized test results, ratings for work habits, and disciplinary records. The findings indicated that student relationships with their kindergarten teachers could predict their work habits and reports of disciplinary problems in early elementary school and mediated effects (i.e. effects of prior performance) right through to eighth grade. Further, when kindergarten teachers reported relationships with students that involved conflict, this predicted student grades, scores on standardized tests, and work habits throughout early elementary school, after student background factors had been controlled for. Negative relationships at kindergarten continued to predict poor behavioural outcomes in the later elementary school years, as well as during middle childhood, especially for boys. This study showed that having negative relationships with the kindergarten teacher could predict a range of outcomes in the academic and behavioural areas, even after controlling for other early indicators of these possible results, and it suggests the importance of students forming positive relationships with their teachers early in schooling.

In a similar study (Jerome *et al*. 2009), the researchers followed 878 students from kindergarten through to the end of sixth grade. They measured how close each consecutive teacher felt to each child and also whether the teacher reported conflict. They reported that, over the first seven years of schooling, there was a moderate relationship between teachers’ ratings of their closeness with the child, but stronger relationships over time between ratings for conflict. This suggests that teacher factors may play a role when rating closeness, because teachers are more likely to relate positively to some students than to others, and the students with whom teachers form close relationships may vary because of teacher personality. However, ratings of conflict could be more consistent because they relate to student externalizing behaviours, and all teachers view these as being problematic. It may also be that students’ reputations precede them, because teachers talk to others about their problem students. This could influence new teachers’ expectations for student behaviour. Another finding was that, over time, ratings of closeness decreased, and ratings of conflict increased. The researchers proposed that this might be because of changes in the classroom environment, whereby, as students progress through the grades, more emphasis is placed on academic areas and achievement and less on the teacher–student relationship. However, in the United States, as students move through the elementary grades, they begin to have some specialist teachers in preparation for
middle school, and, hence, their opportunity to form a close bond with one
teacher is decreased.

A further investigation (Downer et al. 2007) explored more closely whether
the classroom climate (i.e. quality and instructional context) predicted student
engagement in Grade 3. For the 955 students observed in this study, classroom
environment and student characteristics were related to student behavioural
engagement. Students were more likely to be engaged when working in small-
group settings than they were if they were working in a large group or inde-
pendently. They were also more likely to be engaged when the teacher
instruction was of higher quality and if it related to more challenging thinking
(analyzing and inference) than if the instruction was concerned with basic skills.
Students who had previously been identified as at risk for behavioural and
academic difficulties tended to be less engaged than other students in most class
situations. When the quality of instruction was high, however, at-risk students
were more likely to be engaged if the teacher was instructing a large group and
when basic skills were being taught. All students were more engaged when the
teaching quality was high, in small-group situations and when higher-level think-
ing was being encouraged. Hence, there were particular benefits for engage-
ment when students were in a high-quality instructional environment. This may
be one explanation for why students learn more in a high-quality instructional
environment. Reyes et al. (2012) tested, with 1,399 fifth- and sixth-grade
students, the significance of engagement as a moderator between the class climate
and student achievement. They showed that a positive association between the
emotional climate of the classroom and student achievement was mediated by
student engagement. Thus, students who had good relationships with their
teachers and were achieving well were more likely to be engaged than their peers
whose experiences were less positive.

Weinstein (2002) proposed that the quality of the teacher–student relationship
could influence the level of positivity students enjoyed in their peer relationships.
This conception was tested in a study by Luckner and Pianta (2011), where they
investigated the peer relationships of 894 fifth-grade students in 834 separate
classrooms. They explored the quality of the student relationship with the
teacher in relation to the students’ socially competent, aggressive or withdrawn
behaviour with peers. After accounting for previous behaviour towards peers,
 Luckner and Pianta found that the overall quality of the students’ relationships
with their teachers was related to student pro-social behaviour and aggression,
although these relationships were quite small. Students in the classrooms where
relationships with teachers were warm and respectful and where the teacher was
responsive to students’ needs were rated more highly for their social compen-
tence. A further finding was that, in classrooms that were better organized – that is,
where there was more academic learning time, more efficient behaviour
management, and more student engagement – students related better to their
peers, and this was especially so for students with a previous history of poor
peer relationships. It may be that providing students with clear structures and
boundaries, but within a positive framework, facilitates students' learning opportunities and creates a more positive environment overall. Hence, this study showed that, not only is the quality of the teacher–student relationship associated with the quality of the students’ peer interactions, but also the management and organizational structures in place in the classroom can affect students’ peer relationships.

Clearly, teacher behaviours that support students emotionally and practices that provide high-quality learning environments are positively associated with student achievement, student social and emotional outcomes, and peer relationships. These results speak to the power of the teacher and how crucial it is that all students experience high-quality classroom environments. One aspect of Pianta’s work that I particularly like is that he is not focused on identifying the problem; his professional development programme assists all teachers to provide the kind of class climate in which all students thrive. A sample of his studies related to deeper exploration of quality classroom environments and the professional development of teachers will be presented next.

**Working towards creating high-quality classroom environments for all students**

A nurturing classroom environment has been shown to have positive relationships with student academic and social outcomes. Hamre and Pianta (2005) conducted a study with 910 students, identified at kindergarten as at risk of school failure, to see whether the classroom environment into which they were placed moderated the risks by the end of first grade. The students were considered at risk because they lacked concentration, demonstrated behavioural problems, displayed poor social skills or showed low academic competence. Those who had only one risk factor were considered low risk, whereas those with more than one risk factor were classified as high risk. When these students were exposed to a high-quality, instructionally and emotionally supportive classroom environment, the context moderated the risk of school failure. Nevertheless, high-risk students all achieved lower levels of achievement than their low-risk peers; however, in classrooms that were high in emotional support, high-risk students’ achievement was greater than it was for high-risk students in poor emotional environments. For high-risk students, having a high-quality instructional environment was not nearly as important for moderating their risk as was an environment where teachers responded positively to their needs, effectively and efficiently managed their behaviour, and created a positive class climate. This demonstrated that warm, caring teacher relationships with students could mitigate previously identified risks of school failure and signalled the significance of a positive climate for student academic and social outcomes. For students whose mothers had less than a four-year degree and who experienced a high-quality academic and emotional environment, their achievement was similar to that of their peers with more educated mothers, by the end of first
grade. Conversely, students with less-educated mothers and in poor-quality classroom environments did not achieve as well as those whose mothers were better educated, even when prior achievement was controlled. The authors (Hamre and Pianta 2005) suggested that, when students were exposed to high-quality literacy instruction and meaningful feedback, and were engaged in high-level discussion of concepts, the class context could serve to enhance the achievement of students with fewer home environment resources.

One reason that teachers and researchers investigate classroom environments is to establish high-quality learning environments for all students. Another reason is to seek plausible solutions to closing the achievement gaps that exist in all Western countries between low socioeconomic and minority group students and their middle-class and European peers. The study above shows that an emotionally supportive environment may help to reduce the achievement gap for at-risk students. Crosnoe and colleagues (2010) showed that, for students who entered school with, respectively, low, average, and high skills in mathematics, their achievement trajectory was generally maintained through to fifth grade, so that those who entered school with high mathematics achievement were still achieving well by the end of their sixth year of schooling, and those who had low skills on school entry were still performing poorly six years later. However, poor achieving students who were in an emotionally supportive classroom, and who received instruction that challenged their thinking and required inferential thinking, did narrow (though not close) the gap with their high-achieving contemporaries. The gap was not narrowed if the students were in classes where they were in conflict with the teacher, or if they were provided repeatedly with low-level skill- and drill-based instruction. Again, this aligns with the practices of high expectation teachers, who provided challenging learning opportunities for all students, while creating a warm psychosocial environment for them.

Pianta’s work suggests that, despite many attempts at decreasing the achievement gap between rich and poor, black and white, it remains. Attempts to decrease the dropout rate have also made few inroads. His work with students, that of Bishop (Bishop et al. 2003; Bishop and Berryman 2006), Babad (2009) and Weinstein (2002) and my own work (Rubie-Davies and Peterson 2011) point to the need to focus on teachers’ relationships and interactions with students, if student achievement is to be increased, and the achievement gap is to be decreased.

The number of studies that I have outlined by Pianta and his colleagues signals in many, many ways the importance of the psychosocial climate for student learning, something accepted by high expectation teachers. As I said earlier in the chapter, however, the recognition of the importance of relationships for student learning is a relatively recent phenomenon. The thousands of observations that Pianta has conducted in classrooms led him to create an observational instrument for use in classrooms, the Teaching Through Interactions (TTI) framework (Hamre and Pianta 2007). This provides an empirically supported theoretical framework on which classroom observations are based. It provides a
means of thinking about interactions, a way to organize the observations, and an approach for conceptualizing and measuring them. One aspect of the TTI framework that makes it particularly robust is that it appears to be grade invariant; that is, it provides a theoretical framework for observing the class climate in classrooms from early childhood right through to secondary school (Pianta et al. 2012).

The TTI framework considers teacher–student interactions in three primary domains: emotional support, classroom organization, and instructional support. Within the emotional interaction domain, teachers are observed in relation to the emotional climate of the classroom, teacher sensitivity to students and regard for student perspectives. The classroom organization domain captures interactions that lead to the smooth running of the classroom. The interactions relate to how teachers organize student behaviour, make efficient use of time and capture student attention. The domains that are observed, therefore, are effective behaviour management, productivity, and learning formats. The final domain is instructional support, which evaluates teacher promotion of student engagement and student achievement of learning outcomes. This domain of the TTI framework appraises how teachers develop concepts, the feedback they give to students, and the language and instructional discourse used in the interactions with students (Pianta et al. 2012).

From this theoretical framework, Pianta developed a measurement instrument that could be used for observing teachers, CLASS. He later developed CLASS-S, specifically for observing in secondary school classrooms. This tool measures teacher–student interactions at four levels, which range from broad to micro. The broad domain encompasses the areas described above (class climate, teacher sensitivity and regard for student perspectives). From there, each element of the domain is measured at finer levels of analysis. CLASS provides a set of behavioural indicators that are then defined in relation to behavioural interactions that can be observed. For example, class climate includes interaction behaviours such as the quantity and quality of teachers’ emotional interactions with students. These are further broken down into specific behaviours, such as ‘smiles at students’, ‘provides positive feedback’. The degree to which students seem to like interacting with each other is also an indicator of the class climate dimension. Thus, observers can move from the broader conceptualization of teacher–student interactions to far more specific behaviours. Examples of interactions are then matched to a 1–7 rating scale, from low to high quality (Pianta et al. 2012). The three-factor structure of the TTI framework has been validated with more than 4,000 students, using a confirmatory factor analysis that indicated adequate fit of the model (Hamre et al. 2010). Hence, CLASS may be a useful framework for principals, senior, and middle managers and colleagues to observe each other and, hence, provide a point of discussion for professional development.

The CLASS framework was used to develop a professional development programme for teachers, MyTeachingPartner (MTP), which aims to assist
teachers to enhance teacher–student relationships and interactions. The areas that form the major foci for the professional development are teachers’ knowledge and understandings about their interactions with students, relational supports for teachers being available, regular individualized feedback for teachers about their interactions with students, and some clear goals that teachers wish to focus on to improve their interactions (Pianta et al. 2012). The approach taken in the professional development involves collaboration and consultation. The MyTeachingPartner programme provides web-based resources, so that ongoing, individually focused professional development can be provided at a distance. Teachers have the opportunity to view videos of their own interactions with students and also the highly rated interactions of others. These videos form the basis for the enhancement of practice. Teachers video their own practice fortnightly and then work with a consultant to reflect upon their progress, using CLASS as the framework for reflection. The consultant provides regular, individual feedback to increase teachers’ skills and understandings of their interactions. Evaluations of MTP are showing significant effects on teachers’ interactions, increased understanding by teachers of their interactions with students, and much improved student social and academic outcomes.

I will present one such evaluation, a secondary school evaluation that I have deliberately chosen as it demonstrates the effectiveness of both CLASS and MTP at this level, even though they were originally designed for elementary school. There were seventy-eight teachers in the study (Allen et al. 2011), who were randomly assigned either to participate in the secondary version of the MTP programme (MTP-S) or to complete a regular professional development programme. The first year was primarily a learning and coaching time for the teachers, and so it was expected that the MTP programme would not show any effects until the second year, when the teachers had completed the professional development coaching and were, by then, able to fully implement and understand the new interaction practices. Indeed, by the end of the first year, there was no statistically significant difference between the achievement of the students in the classes of MTP-S teachers compared with that of those in the classes of the control-group teachers, after controlling for student prior achievement and demographic factors. However, by the end of the second year, when teachers could take full advantage of their training, the students of teachers in the MTP-S group had a larger gain than the control group, the equivalent of students increasing their achievement from the fiftieth to the fifty-ninth percentile. Further analyses showed that the quality of the newly learned interactions of teachers played a significant mediating role in student achievement improvement. The intervention was equally effective, in mathematics, science, social studies, and English, in raising student achievement and also was similarly effective across classrooms whose demographic and structural characteristics varied. Overall, this evaluation showed that the MTP-S programme changed teacher behaviours and resulted in gains in student achievement.
I began this chapter by focusing on the work of expectation researchers to highlight the importance that they have found of the association between teacher expectations and the classroom climate. I also presented findings in relation to high expectation teachers. The classroom climate that high expectation teachers created was emotionally supportive, included preventive classroom management and, as we saw in previous chapters, was also instructionally supportive. These areas align well with the theoretical framework proposed in Pianta’s work. Hence, I devoted several pages to studies conducted by Pianta and his colleagues. The overwhelming evidence indicates the central role that a positive psychosocial climate can have, not just on student social outcomes, but also on their academic achievement. Warm relationships with teachers have much to contribute in improving the quality of students’ educational experiences. The affective environment communicates to students expectations about their behaviour and their learning achievement. The psychosocial climate of the classroom provides the framework for the interpersonal relationships of the classroom and can influence student perceptions of teacher caring and student motivation to succeed. Teacher behaviours, particularly their affective responses, may be interpreted by students as revealing how their teachers feel about them and their learning. It comes as no surprise, then, that the psychosocial climate should be considered, at least equally with the instructional environment, as a major contributor to student academic achievement. As such, the next chapter will provide practical suggestions for enhancing the classroom climate. Some of Pianta’s ideas will be expanded upon, but the chapter will also draw on positive psychology and other sources, with the aim of enhancing the class climate for students.
Although there is strong research evidence pointing to the pivotal role of positive teacher–student relationships in leading to better social and academic adjustment for students, improved social skills, and increased academic gains, knowing these features to be so is not sufficient. Just as teachers may query what high expectations look like, they can also ask what a positive classroom climate looks like. Certainly, visitors to any classroom will be aware of that feeling in the air that is the class climate, but how to capture that nebulous quality is not necessarily immediately obvious. In this chapter, I aim to provide practical guidance related to learning about the social structure of the classroom, measuring the class climate, and translating the empirical evidence into practical ideas in the classroom.

There appear to be relationships between various teacher traits or teacher personality factors. Some teachers will have a lot more confidence in their ability to make a difference to student learning, stronger beliefs in their ability to manage classrooms effectively, and greater conviction that they can cater effectively for the learning of all students. These attributes are termed teacher efficacy. Teachers who have high teacher efficacy tend to demonstrate warmth and caring towards their students. Of course, teachers cannot suddenly acquire high teaching efficacy. Efficacy grows with success. The more teachers view themselves as successful and effective in the classroom, the more likely they are to improve. They are more likely to take risks, try new ideas, experiment – and, when things go wrong, to view failures as a learning experience rather than some fixed quality that cannot be changed. Teachers who believe they are effective are also likely to have high expectations for their students, because they have strong beliefs that they can have an effect on student achievement irrespective of student background, a belief that is very strong among high expectation teachers. Such
teachers are also culturally responsive. They are sensitive to the needs of their students and respectful of the many cultures represented in their twenty-first-century classrooms. The practical ideas contained in this chapter are not difficult to implement, but can lead to a more positive classroom environment. In turn, when students feel cared for and cared about, they are far more likely to be engaged in learning, thus reducing tension in the classroom, fostering constructive peer relationships and reducing behaviour management issues. Students in classrooms with a positive climate want to learn; they want to please the teacher and gain affection.

Learning about the social structure of the classroom

The teacher is the leader of a small community, the classroom. The students are members of that community and learn how to act and interact within the social structure. They learn what the rules are and, as they progress through school, they will find that the rules and what is expected and acceptable under the auspices of one teacher can change with another. Students also need to negotiate these differences. Students who have difficulty interacting appropriately within the classroom structure may not form positive relationships with their teacher or with their peers. This can lead to feelings of isolation, perhaps the bravado of not caring or, at times, withdrawal from classroom activities. As I pointed out in the previous chapter, students who lack social skills can become demotivated, and so a lack of social competence becomes associated with decreased academic progress.

Teaching is often referred to as being the most complex profession. It is the only profession in which the professional must work with all her/his clients at the same time; teachers have to multitask all day long, because they need to organize the classroom and their many students; and they have a large influence on the community of relationships that develops and that they lead. The classroom world of the teacher sits alongside the student world. The status of the students and of their peer relationships is heavily influenced by the relationships students enjoy with their teachers, and by the way in which the classroom is managed and organized. However, although teachers heavily influence the peer relationships, they are not always privy to this undercurrent of student connections, which form an implicit world. Understanding more about this student world provides teachers with an excellent gauge of the success of their classroom and the level of positivity in the student relationships.

Measuring the class climate: sociograms

One way of gaining more understanding about the implicit student world is through sociograms. Sociometry was first introduced into the literature by Moreno (1943) and then adapted for use in classrooms. Sociometry is a means of asking students about their peer relationships and then translating these into
an interpretable diagram that tells the teacher much about the quality of their student relationships. Basically, it involves students nominating others whom they like or dislike. For example, the teacher may have students nominate three students they would like to have in their group and one student they would not want. There are several possible variations: only including positive nominations, including more than one negative nomination, nominating peers that students would like to work or play with. My experience is that teachers think they know who likes whom, who gets on well, who will not work with someone else, but when they create a sociogram of the relationships from the students’ perspective, they are continually surprised. Although there may be a few obvious peer connections, there is much at work in that implicit student world that teachers are not aware of. Sociograms enable a much deeper understanding of the student–student relationships.

Sociometry was very popular for many years, up until the 1980s, when sociograms fell into disfavour for a time. This was because of the ethical issues than can arise in using sociograms. Having students nominate those whom they dislike could be viewed as potentially harming relationships. There is the possibility that students will gossip about whom they nominated. These issues can be overcome with sensitive implementation by the teacher. One way of surmounting these issues is for the teacher to emphasize that the information is confidential to her, that she will not tell anyone whom students have nominated, and that students are forbidden to talk about whom they nominate. The teacher can use the information gained to organize the class groups such that a new sociometric measurement would be conducted when groups were to be changed. Group change then becomes a reason for conducting the social measure: the teacher needs to reorganize the groups. This also provides a reason for confidentiality, because the measure is simply for organizational purposes – at least as far as the students are concerned. Taking the first implementation example above, each student can be given a small piece of paper on which they write their own name first, then the names of three people they would like to have in their group and, finally, the one person they would not want. Students are told that they must not share what they have written with anyone, and that the teacher will keep anything they have written completely confidential. Once students have listed their peers according to teacher guidelines, they fold their pieces of paper in half, and the teacher collects these individually. Of course, it is important that these pieces of paper are put somewhere secure until the teacher is able to begin the analysis.

The next step in the process is to form a diagram of the relationships indicated by the student nominations (see Figure 11.1). If using both positive and negative nominations, two diagrams would be compiled. Much can be gleaned from a careful analysis of these diagrams. For example, if students are suggesting three students that they want in their group, then, on average, all students would receive three nominations. Some students will receive more than that; others will receive less. A first step in creating the sociogram is for the teacher to read through the
nominations. This initial overview will provide the teacher with a first impression of students who seem to be selected more frequently. In most classes, there will be two or three stars, students who receive many positive nominations. In forming the diagram, these students would be placed in the centre. At the primary school level, it is a good idea to place the female stars on one page on which the sociogram is being drawn and the male stars on another. This is because, at the primary school level, students tend to form same-sex friendships, and so there may be little or no crossover between the girls and the boys. Alternatively, use a larger sheet, so that both boy and girl nominations can be included on one page. And, just a note at this stage, although it is relatively easy to form a sociogram manually (pencil is advised!), there are computer programs available on the Internet specifically for creating sociograms, which make the whole task very easy.

Once the sociogram has been drawn, this is the moment to begin the interpretation, the time when there are often unanticipated findings. Figure 11.1 is a simplified version of what might be the result of measuring student liking of others. In this diagram, each student has only nominated two others, and the example only includes girls. To make mutual liking more obvious, it is possible to make the double-headed arrows thicker than the one-directional nominations, as I have done, though this is not necessary. So, what does this particular

FIGURE 11.1 Illustration of the student connections represented in a sociogram
sociogram tell us? Sonia is a clear star: she has more nominations than anyone else, and it would be likely that she would have few, if any, negative nominations. Other students, such as Diane, are also popular. If the teacher is using the sociogram to form groups, then students such as Diane and Sonia may be good choices to take care of Millie. As can be seen, Millie has no nominations. This is where I prefer using the negative nomination as well as the positive selections, because, currently, Millie’s status is difficult to determine. It could be that Millie is an isolate, happy in her own company, or it could be that she is unpopular. The dislike selections provide that information. If Millie is neither liked nor disliked, then she is simply overlooked by her peers. Although she may be happy this way, it is important to remember that researchers (Asher et al. 2001) have shown that, when students have at least one close friend, this serves as a buffering influence against the potential damaging effects of being isolated. If she is not rejected by her peers, the class teacher may be able to foster a relationship between Millie and one of the more popular students. However, if Millie is rejected, that is, disliked by several peers, this is a more serious issue. Students who are rejected either tend to be aggressive or they are victimized by their peers. When they are aggressive, rejected students are disliked because they react negatively to social situations and may be physically violent. Some of these students are bullies. Students who are rejected but non-aggressive are often students who are bullied or teased by other classmates. They are likely to be very unhappy at school. For both aggressive and non-aggressive students rejected by their peers, the teacher will probably have to work hard to help such students develop appropriate social skills and to facilitate acceptance by the other students. Dodge and his colleagues (Dodge et al. 2003) showed that students who did not develop positive peer relationships in the kindergarten grade were less socially competent at Grades 1 and 2. Unfortunately, students who are less skilled socially are rejected by peers, and so do not have the same opportunities as other students to learn social skills; early rejection leads to maladaptive behaviour and even less acceptance by peers. Hence, it is important that the teacher tries to turn poor social skills around. The teacher may feel able to attempt this difficult task, or there may need to be specialist intervention, but pairing a less popular student with one who is nominated by many peers can often work well.

Many of the students in Figure 11.1 have dyadic friendships. This is common. These mutual friendships are beneficial to students. When there are many of these in a classroom, this also suggests positive relationships in the classroom. If all, or most, students have at least one close friend, this suggests a constructive class climate. This is particularly so when, as in the example sociogram, the various friendships contribute to a network of relationships that reaches right across all the students. This is suggestive of harmonious interpersonal connections throughout the classroom. Similarly, although the sociogram in Figure 11.1 does not include boys, the number of cross-gender friendships can sometimes be an indicator of very positive relationships in the class. Student leaders are also indicated in the sociogram. In this case, Sonia is an obvious choice, but, in some
classrooms, there may be a small group of three or four students who most likely choose each other as friends but who are also chosen by many other members of the class. Students such as these make good leaders, as many students like them and so probably respect them and would be led by them. Occasionally, there will be a small group of three who choose each other as friends, but no one else in the class selects them. This suggests a close-knit group who may not be liked by their peers (again, the negative nominations would show this) and could perhaps be oppositional. Where there are several small groups not connected to others, this is an indicator of disharmony in the class. The teacher would need to work hard to develop cross-group friendships, and frequent group changes can help to foster relationships and break down barriers. Hence, much can be gleaned from taking the time to create a sociogram and, as I said earlier, teachers are consistently amazed by what they discover about their students from the sociogram.

**Measuring the class climate: questionnaires**

Researchers use various instruments to measure the class climate. Interestingly, most of the class climate research using questionnaires has been conducted in secondary school classrooms; far less has been conducted in primary school classrooms. As a result, there are not many instruments available — particularly ones that could be used by teachers. However, there are two that I believe can be used or adapted for use in classrooms. The first of these is the My Class Inventory (Fraser et al. 1982; Fraser and O’Brien 1985) and the second, the Student Personal Perception of Classroom Climate (SPPCC) (Rowe et al. 2010).

All items for each of these measures are contained in the Appendix. To get a valid measure of the class climate, it is best to include all items from whichever scale the teacher decides to use. Further, it is best if the teacher is able to get someone else to conduct the questionnaire, perhaps a teacher’s aide, a trusted colleague or a senior manager. The questionnaires should be anonymous, or students will not respond honestly. Both of these questionnaires are suitable for students aged between 8 and 12 years.

The My Class Inventory contains five scales designed to measure the class climate: cohesiveness, friction, satisfaction, difficulty, and competitiveness. Cohesiveness is a measure of the peer relationships in the classroom, the extent to which students feel that they and other students are connected to each other. Friction, on the other hand, is an indicator of the degree to which there are tensions in the class and aggression between students. Satisfaction measures student contentment with the class. The difficulty scale indicates the degree to which students find the class work appropriate for them, and competitiveness evaluates the degree to which students want to do better than peers, rather than work cooperatively. In an ideal classroom, there would be high levels of cohesiveness and satisfaction, low levels of friction and competitiveness, and moderate levels of difficulty.
Students respond with either ‘yes’ or ‘no’ to each item in the questionnaire. Most students will take between 15 and 30 minutes to complete the questionnaire, but sufficient time needs to be allocated for students who may need more time. The questionnaires then need to be scored. There is a column to the side of the student responses that indicates how items should be scored (see Appendix). Those items that have a plus sign beside them are scored 3 if the student has responded ‘yes’ (e.g. item 13) and 1 if they have responded ‘no’ (e.g. item 25). Items that have a minus sign next to them are scored in the opposite way (e.g. item 16). Any items that have been left out or where the response is not valid are scored 2. The scores are then added up for each scale: CH (cohesiveness), F (friction), S (satisfaction), D (difficulty) and CM (competitiveness). These scores can then be transferred to a spreadsheet, and class means (or total scores) can be calculated for each scale. Just as a guide, the class means across 100 primary school classrooms, when tested by Fraser and his colleagues (Fraser et al. 1982), were as follows: cohesiveness: 14.01; friction: 18.23; satisfaction: 18.87; difficulty: 12.31; and competitiveness: 16.20.

The SPPCC is just as easy to administer to students as the My Class Inventory questionnaire, but is possibly a little more difficult to calculate, although, for teachers who enjoy a challenge, a spreadsheet will help to calculate the results. The SPPCC is scored on a 4-point scale, where 0 = never, 1 = sometimes, 2 = often, and 3 = almost always. The SPPCC has four scales: teacher support, peer support, academic competence, and satisfaction. The teacher support scale measures the degree to which students believe their teacher supports them in their schoolwork and takes a personal interest in them. The peer support scale is similar, but measures how much students support each other academically, and also the extent to which students perceive that their peers care about them. The academic competence scale is an indicator of student self-efficacy and has been shown to relate to student achievement (Rowe et al. 2010). A low mean on this scale points to a need for teachers to boost student confidence in their ability. The satisfaction scale is similar to that in the My Class Inventory, but is related to satisfaction with school generally, rather than the specific class the student is in. The SPPCC will probably take much the same time for students to complete as the My Class Inventory, but teachers should be flexible, so that students have sufficient time to complete it. There is one negatively worded item (‘I wish I didn’t have to go to school’), which needs to be reverse-scored such that, if a student circled 0, this would be scored 3; if they circled 1, it would be scored 2; if they circled 2, it would be scored 1; and if the student circled 3, it would be scored 0.

Items 1–8 form the teacher support items (see Appendix). For each student, add the score for the eight items, depending on what the student has circled, and then find the class mean (add the total for all students, then divide by how many students completed the scale); do the same for the next eight items (items 9–16), which measure peer support. There are four items that measure academic competence (items 17–20), which again need to be added for each student, and
then a class mean needs to be calculated. The final six items relate to student satisfaction with school (remembering to reverse-score the negatively worded item above), and so the procedure above should again be followed. This means that the total scores will be out of 24 for the teacher and peer support scales (because students score between 0 and 3 for each item, and so, if they scored the maximum for the eight items, they would score 24 – remembering to find the mean across the class), out of 12 for the academic competence scale, and out of 18 for the school satisfaction scale. Indicative means are 18.73 for teacher support, 11.74 for peer support, 9.61 for academic competence, and 12.04 for school satisfaction.

Increasing positive emotions in the classroom

Relatively recently, a new branch of psychology has evolved called positive psychology. The fundamental ideas on which positive psychology is based have much to offer in terms of classroom applications, and, indeed, there is a website dedicated to providing exciting and stimulating ideas that can be implemented in classrooms (www.teachingexpertise.com/articles/implementing-positive-psychology-3700). An underlying premise of positive psychology is that experiencing positive emotions has benefits, not only for our mental but also for our physical health. The ten primary positive emotions are: joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love.

In our modern times, when we can map the brain, psychologists have conducted various experiments and found that, when people are experiencing positive emotions, they become more receptive to new ideas or experiences and more creative in solving problems. Negativity tends to narrow our options; positivity makes us curious and interested and opens us up to the possibility of new directions or explorations. It enables us to see possibilities we may not have considered before. Indeed, Fredrickson (2009), a ground-breaking researcher in the field of positive psychology, claims that positivity can add up to a decade on to your life, it is that powerful. Her contentions appear to be backed up by research as well. A meta-analysis of more than 300 studies (Lyubomirsky et al. 2005) suggested that, although being successful is associated with positivity, conversely, the authors concluded that positivity also led to success.

There are clear implications for the classroom. Not only is increasing the positivity in the class likely to result in a pleasanter atmosphere for both teacher and students, but also, a positive class climate is likely to lead to greater learning by students. The positivity researchers do not suggest that you wake up one morning and suddenly decide to become more positive, but that positivity is infectious and it grows. Increasing our daily experience of positive emotions has many benefits. Looking for the fun in life, appreciating our loved ones, opening ourselves up to new experiences, exploring, caring for those we love, being kind to those we meet day to day, and being honest with ourselves are all hallmarks of a positivity mindset. The positivity researchers are not suggesting that we
should never experience negative emotions. That would be incredibly naive. Indeed, they speak about the innocence of being too optimistic. What they do advocate, however, is that a generally positive outlook enables us to cope far better with all that life throws at us. Fredrickson (2009) has shown that a 3:1 ratio of positive to negative emotions is what appears to create resilience, enabling us to effectively manage when we experience adverse events in our lives. The 3:1 Positivity Self Test is available online (www.positivityratio.com) and provides a ready guide for how we are feeling each day. It can help us to take care of ourselves as well. Teaching is an extremely busy job, and so it is important that teachers take time to enjoy life and to be kind to themselves.

So, how can we translate what high expectation teachers do, what the class climate research tells us and what the positivity researchers have found into creating a warm, caring, trusting class environment in which all students can flourish? The remainder of this chapter will introduce a range of ideas that can be used to create the kind of environment that will result in students loving their classroom and the community that they share together.

**Implementing ideas for a positive class climate**

**Instruction, class management, and personal care**

To begin with, several of the responses of high expectation teachers that promoted a positive class climate were related to their classroom instruction and management. For example, high expectation teachers promoted cooperation through their expectation that students should and would support and help each other. The ground rules for cooperation can be established early in the year by creating a number of activities that require students to work together. Activities such as group or class murals, wall stories, and the creation of big books based on a class story all lend themselves to requiring students to work together for an end product. Such activities can be part of the learning activities in literacy lessons or could be part of mathematics, social studies, science, health or other units.

Teacher modelling is a crucial part of building a positive environment. Teachers need to become conscious of what they say and how they present to the students: verbal and non-verbal behaviours are important in projecting our feelings and emotions. Occasionally filming interactions with students and then analysing one’s own behaviour, particularly non-verbal behaviour, is one way of checking what is being said and how what is being said is being transmitted to students. Teachers are constantly surprised when they view videos of themselves, just simply not being aware of a ‘look’ they use when they are displeased, of a sarcastic tone that may creep in, or of just how positive and supportive they are in what can be a very stressful job. If the teacher is solely responsible for examining her own video, there is no incentive to ‘perform’; if the video is part of an appraisal or evaluation process, the honesty that can be
gained from critiquing oneself may be lost, unless the teacher works in a school where there are established and high levels of support and trust.

In paying close attention to the language that the teacher is using, one aspect that can be highlighted is the use of preventive rather than reactive class management. The strength of preventive management is something learned in every teacher education programme. Unfortunately, in the day-to-day workplace, this can be forgotten. The videoing and subsequent analysis can focus on one aspect that the teacher wants to improve. Preventive management is powerful in moulding student behaviour positively. I was surprised at just how frequently and how well high expectation teachers used preventive management as their primary means of classroom management, in contrast to the low expectation teachers – and, once the desired behaviours were in place, the teachers really did not need too many other strategies. The students wanted to please their teachers. The high expectation teachers could and did react both positively and negatively to student behaviour at times, but, generally, their classrooms were positive, vibrant places to be.

Another aspect of teaching that could provide a focus for self-examination is questioning. I do not mean so much the kinds of question being asked (although this could be where the attention is focused during one videoing session), but rather who is being asked the questions, and what happens following a student response. It is useful to check that, at times, all students are being asked challenging, open-ended questions that make them think at deeper levels, and that such questions are not being reserved only for those students the teacher believes will answer them appropriately. It is also an interesting exercise to examine what follows a student response. For example, I was amazed at how often teachers repeat student responses. I am not saying that this is right or wrong, simply that it is. It would be interesting to think about the purpose of repeating answers. The final aspect of checking teacher response is what happens when students make an incorrect response. Earlier, I explained how, when this occurred, high expectation teachers provided students with prompts that helped to support them to a correct answer. What do you do?

Further ways teachers can improve the class climate relate to making personal connections with students. Taking the time to get to know students, enjoy them, and appreciate their abilities can go a long way to building strong interpersonal relationships. The students enjoy hearing about teachers’ lives outside school and love to share their own lives with the teacher. Just listening to students and getting to know them at a personal level have strong effects on class tone. Valuing the student diversity in the class also makes students feel cared for. I knew a Year 3 teacher once, in a local primary school, who had twenty-four students in her class, who had eighteen different first languages. She was able to greet each child in their own language – and the huge smiles she received each day showed exactly how the students felt. She planned small units around Eid, Hannukah, Diwali, the Chinese New Year, and so on, so that all the students came to understand a little about each other’s background and were valued members of the classroom.
Encouraging a classroom community

Frequent group changes help to foster a class community and facilitate the interaction of all students with each other. If the teacher is careful in using the data from the sociograms to group students, the decisions can be based, not only on the information students provide, but also executive decisions made by the teacher along the way, to ensure that students do indeed all work with each other at some time during the year. A further way of developing a cohesive, warm community of learners is to ensure that certain students are not being privileged in some way, be it running messages, standing up at assembly or helping the teacher. It is important that students are treated equitably, so that the preferential affect that Babad (1998) spoke of is not a feature of the classroom.

Giving students some responsibility in terms of their groups can be effective. Allow students to name their groups, perhaps based on a theme. It is useful, though, for the teacher to be strategic about the group formation. For example, all groups should be mixed gender; groups of four to six students appear to work most effectively (Blatchford et al. 2006); and students can be grouped socially in ways that will promote supportive relationships. Groups can be given ownership of parts of the classroom, so that they work together. For example, at the end of each day, one group can be in charge of ensuring that the reading corner is tidy, another group can take charge of the mathematics area, and so on, such that each group has one aspect of the classroom it is responsible for keeping clean and tidy. This idea could be extended to groups having responsibility for specific areas of the school. For example, one group might be responsible for the school garden, another for the worm farm. What is most appropriate for groups to attend to will depend on the individual teacher’s own classroom and school. Each group could also be given responsibility for decorating one area of the classroom.

Involving parents (or grandparents) in the classroom is a further way of fostering the idea of a classroom community. This idea is appreciated by minority students from collectivist cultures, but is equally well endorsed by students whose culture is more individualistic; it can help create that home–school partnership. There are lots of ways that these links can be achieved, besides the obvious one of having parents working with students in the classroom. Parents have talents we often do not know about. I was once in a classroom that had several beautifully illustrated and handwritten big books. It turned out that one of the parents was very artistic and, in the evenings, she made up these books for the class (the teacher supplied her with materials). So, asking the parents at the beginning of a year what their talents, occupations, backgrounds, and interests are can provide unforeseen benefits. Involving parents in social studies units where they have knowledge of the culture being studied, or having them along to class to present a talk on an interest that the teacher believes the students would find fascinating, or involving them in sharing some aspect of their past all help to foster relationships. Letting parents know when their child has done something particularly special or praiseworthy is also likely to be appreciated. This can be
achieved through a quick phone call or email. I know one teacher who regularly sends school postcards home to parents. Parents are often quite stunned, but extremely appreciative, when they are contacted because their son or daughter has been particularly good or done something really well. I am sure that they welcome positive calls much more than the negative ones that seem far more common. Again, it is about building relationships. If the parents are involved when things are going well, they are far more likely to work alongside the teacher if something goes wrong for their son or daughter at school, rather than to (fairly naturally) become defensive if they are contacted only when there are problems.

**Promoting class cohesion**

Most teachers will have class rules. It is good to form these with students, as they then have some ownership of them. In New Zealand, we have Waitangi Day at the beginning of February, which is also the beginning of our academic year. Waitangi Day celebrates the signing of the Treaty of Waitangi between Māori and Europeans, which is our fundamental constitutional document. Consequently, many primary school teachers in New Zealand create a treaty with their class, which all students sign. This is placed on prominent display, and students can then be reminded of what they agreed to. Figure 11.2 is a good example, from a school in the Teacher Expectation Project, Prospect School, in which the students have developed and signed a treaty. Some of the tenets of the treaty are ‘We will treat other people the way we want to be treated’, ‘We will use kind words to each other’, ‘We will be persevering and determined and never give up’ and ‘We will be helpful towards each other.’

If possible, it is good to do something as a class each day. This helps to build class cohesion. This might be just singing a song together once or twice a day, or singing and dancing – and perhaps, if the teacher is feeling adventurous, a 1-minute dance party! This whole-class time may be a time to tell stories or jokes. It could be a quick, cooperative game at the end of the day. Occasionally, the teacher might like to set aside an hour for a games or fun afternoon, where students can play board games, act out plays, have a general knowledge or current events quiz, play chess, play twenty questions . . . Whatever the activity chosen, just let the students have fun.

Once the class is working together well as a unit where there is trust and respect, the teacher can initiate a discussion with the class focused on how the class is going. For example, the teacher might ask questions such as ‘What’s really great about being in this class?’, ‘What’s the best time you have had in this class?’, ‘What was happening?’, ‘How could we make it like that all the time?’ A discussion like this might be timely nearer the middle of the year, but particularly if any persistent problems appear. It can be the kind of discussion that can reignite positivity in the classroom. A possible extension related to student improvement is for the teacher to gain anonymous feedback from students, whereby the students are surveyed about what the teacher is doing well and what
could be improved. Again, there needs to be strong trust in the classroom for students to be honest.

There are lots of activities that can be included as part of the class programme that are designed to build class cohesion. One example is a strengths wheel, where, perhaps for homework or as a class activity, each child creates a wheel that includes what the child considers their strengths. It can include illustrations and photos. A variation of this is a wall of fame or brag wall, where each child creates a brick for the wall that has things on it of which they are particularly proud. When this was introduced to one classroom, the children were so proud of what they had achieved and so excited that the teachers’ aides wanted to add in their own bricks! There is no reason that the adults cannot add in their bricks as well, and the wall of fame can be added to throughout the year. There are other variations. For example, students can create a personal profile that is taped to their desks, or they can form their own personal photo boards. Figure 11.3 shows
a whole-class display centred on building class relationships. All the students are seated in a canoe (a waka, in New Zealand), rowing in the same direction. Each child's paddle has on it their dream job; the posters around the canoe introduce each child, but also show what they are proud of; the clouds above the posters have the student-made class rules, for example, ‘help people with their learning’, ‘help each other when feeling down’, ‘use your manners’, ‘treat others how you want to be treated’, and so on; and, finally, the rainbow has each child’s name on it. Some very powerful messages, all in one beautiful display!

An allied idea is for students to create a poster about their hero, or for the teacher to have a unit about inspirational people. Students could collect information and photos or create illustrations related to their hero, saying why they have selected that special person. This is an activity that could be completed either in a group or as individuals, depending on whether the students generate their own heroes or the teacher provides some inspirational people that a group of students might like to research.

If students are seated in groups, the groups can form the basis for activities such as inter-group games or competitions. Alternatively, students can be assigned buddies. They can be taught to provide and write positive feedback on
each other’s work. Some teachers also like to have a buddy class, generally an older class who look after or read to younger students on a regular basis.

A further idea for increasing class cohesion is to form a class climate committee. The committee can be students who organize class events designed to promote the class climate. For example, they could organize a pet day, a shared lunch or a grandparents’ day. The students need to feel that they have some ownership of the classroom and the events that take place within it. To that end, a class circle is another conception. Circle time can be used when an issue arises in the class. All the students can be given an opportunity to say how they feel, and together they can work out a strategy to improve things.

### Promoting class harmony

There are lots of possibilities for promoting class harmony by encouraging students to care about one another. I will include just a few of these. Once a few have been tried, ideas will grow in and of themselves.

One possibility is to have a ‘counting kindness’ or ‘random acts of kindness’ theme in the classroom. This can be as large or small as you wish. It can mean students recording for themselves times when others have been kind to them, children reporting daily random acts of kindness, or preparing a kindness book that includes instances of kindness. Showing appreciation of others is a further way of promoting class harmony. Students can be encouraged to send thank-you letters to others for random acts of kindness, or to class visitors or to the principal, or the letters may include something positive that the student has done particularly well. Promoting the use of manners shows a degree of respect for each other, and this should be encouraged. Using manners can also take the form of preparing invitations for visitors to the classroom and verbally thanking them afterwards. Following on from the ideas above related to kindness, at the end of the day, students could have an opportunity to publicly thank another student for something they did during the day.

There are a series of similar activities that are excellent for promoting class harmony and positive emotions. The first of these is where one student’s name is drawn from a box, and everyone writes something positive about the person whose name has been drawn out. All of these are anonymous. The short notes can be given to each individual to take home, or they could be formed into personal booklets or posters. Over time, each child has their name drawn out, so that each person has the opportunity to feel special. Another version of this activity is to have a paper-plate positivity day. Each child has a paper plate taped to their back, and students write positive statements about them over the course of a day, so that, by the end of the day, each student will have a plateful of affirming comments either that they can take home or that can form part of a class display. A further version is to use a koosh ball, which students throw from one to another, with the thrower saying something positive to the receiver. Each student receives the ball once, so that all get a turn. Yet another simple thought
is for students to be encouraged to give each other positive feedback or to write each other thank-you letters. A friendship page can also be formed for each student, on which they write positive messages about things they like about each other, or they can give feedback about something thoughtful another person in the class has done. These can be made into scrolls, rolled up and sent home. Students will be very proud to have a record of their positive acts towards others.

Another idea is that the teacher can have little tickets that have a student’s name written on them when they do something kind or caring. The tickets can be dropped into a box, and, at the end of each week, one or two names can be drawn out, and the students can be given a small prize. There is a caution around activities such as this, however, because turning an intrinsically motivated act into something that is rewarded extrinsically can result in a decrease in the intrinsic motivation; students come to perform kind or caring acts in the hope of a reward, rather than because they are genuine.

Once cohesion, harmony, and a sense of community are established, it is important to maintain momentum. It is important for students to be reminded little and often about maintaining positive relationships and supporting each other. A final idea in this section is for students to create a wall tableau about their classroom. Each student can write about and illustrate one aspect of being in this particular classroom that they particularly enjoy, and why. This is a useful reminder about the great relationships and positive environment that are part of their classroom life.

**Encouraging individual positivity**

In Fredrickson’s book (2009), she suggests adults form a portfolio related to positive emotions, something that they can go back to when they are feeling down, to remind them of the wonderful things in their lives. This idea can be readily adapted to the classroom. The class teacher might like to focus on each emotion over time, with students building up their own individual portfolio or scrapbook, or students might like to form a treasure box that contains things that remind them of when they felt pure joy, or felt especially proud of something they had done, or a time when they felt really loved. Fredrickson has a series of questions for each emotion, to prompt the reader to collect together items, photos, illustrations or brief summaries that represent each emotion. For example, for pride: when have you felt the proudest of yourself? For joy: when was a time you just wanted to smile and smile and smile? For gratitude: when has someone gone out of their way to do something good for you? For serenity: when have you felt really peaceful or relaxed?

A further way to promote positivity could be to have a series of YouTube clips or other film clips that are inspirational in some way or particular funny – clips that will make students feel good. These can be available for students to watch if they complete work early, or as some kind of reward. The teacher can also design group or class discussions related to the emotions – positive and
negative – and students could create emotion cubes that show when they have felt particularly hopeful, inspired or loved, but also when they have felt angry, embarrassed or jealous. Allow them to choose three positive and three negative emotions to be represented on their cubes.

The voice of practising teachers

It does take some effort for teachers to create a positive class climate for students, but the rewards are bountiful for both the students and the teacher. It is much nicer to come to work to a positive, supportive environment. Teachers from the Teacher Expectation Project were excited to find that children were more confident, excited, and motivated, and were exercising choice when the teachers implemented ideas to change the class climate. They reported much more of a student voice, and that children developed much better relationships with each other than they had had previously. One participant stated:

The biggest difference I’ve noticed is in my classroom climate. I used the sociogram and the atmosphere has changed – every two weeks the children move desks and it means they have all got to know one another and there is more harmony in the classroom.

A participant who used sociograms to set up ‘family groups’ in his classroom reported that these had been hugely successful, leading to a more cohesive atmosphere in the class, where children supported and looked after each other. Furthermore, students who previously did not get on were now working well together as a result. Another participant was pleased to find that her focus on creating a positive, safe classroom climate for children to learn in had particularly benefitted her special needs children. Yet another participant reported her intrigue about the psychology of the classroom climate in relation to what she thought was going on and what students thought was going on. She stated: ‘I have discovered how very perceptive they [students] are in terms of knowing who rates socially in the class.’

In a subsequent follow-up survey, the teachers gave many reasons for their approval of the changes they had made to the class climate. The teachers articulated their satisfaction with their own progress in changing their non-verbal behaviour as a result of analysing their DVDs. Many spoke about having successfully introduced a mentoring or buddy programme into their classes. A large number had allocated wall space to celebrating successes, and many were sending praise cards home. Teachers were also allowing more time for students to engage in communication with a wider range of classmates. As this participant described:

I have been certain to affirm to each student by way of feedback, their successes and next steps. The dedication and interest shown in their work has
meant positive attitudes towards their learning which has in turn helped with the classroom climate.

Other comments indicating the reasons for success included ‘More student voice and less teacher talk’, ‘Discussing about what makes a good learner’, ‘More use of positive language and non-verbal cues’ and ‘Giving children more power to make up their own rules, systems, consequences, giving them ownership’. Participants reported that children enjoyed being able to work with students they did not normally get to work with, and that their lower-achieving readers were improving a lot more through the influence of the higher-achieving students. Further, the teachers reported that the students seemed more enthusiastic when choosing their books, rather than being told what to read, and were motivated to read and support each other.

The high expectation teachers worked hard to promote a positive environment for their learners, and their students clearly thrived. Within a very short period of time, the teachers from the intervention group were also noticing clear benefits to their students of work on enhancing the class climate. Although teaching can be an incredibly demanding job, it is also hugely rewarding. Teachers can make a huge, positive difference to student lives. Taking the time to make the classroom environment one that is pleasant to be in, physically and emotionally, is time well spent.

The next chapter will focus on motivation, engagement, student autonomy, evaluation and teacher feedback, under the overarching heading of ‘goal setting’. Chapter 12 will present the high expectation teachers’ views of goal setting, coupled with the research evidence to support this practice.
In her book, Weinstein (2002) described how low differentiating teachers in the United States acted as facilitators of student learning by encouraging student autonomy but supporting students at the same time. She also showed that low differentiating teachers motivated students intrinsically. They provided students with clear feedback and emphasized learning for personal growth. Interestingly, half a world away in New Zealand, the high expectation teachers placed similar emphases within their instructional practice. They provided their students with choices about their learning, closely monitored students’ progress, provided useful feedback about student learning, and set clear mastery goals with students. In turn, these practices appeared to relate to beliefs among high expectation teachers that students needed to be intrinsically motivated, and that having a clear framework for their learning would ensure that students were cognitively and behaviourally engaged in the classroom.

This chapter focuses on goal setting as the structure that embraces the constructs of motivation, engagement, autonomy, evaluation, and feedback and, thus, was one means by which high expectation teachers enhanced student learning. Goal setting provided students with individual learning goals. The teachers used student goals to provide them with choices about their learning (autonomy). Having individual learning goals meant students were intrinsically motivated and engaged in their learning, particularly because many of the learning experiences were framed around student interests. The high expectation teachers regularly evaluated student progress, and feedback was focused on the student goals and next steps in learning. In this chapter, I will present the voices of the high expectation teachers and describe the kinds of practice they used to enhance student autonomy, motivation, and engagement, how they monitored student progress and the kinds of feedback they gave to students.
I will then explore the field of goal setting in general to examine more closely why high expectation teachers probably chose to implement goal setting in their classrooms.

**Goal setting: the voices of teachers**

As I have already highlighted, the high expectation teachers gave their students choices. As these next few paragraphs will show, this was one way in which the teachers helped to foster student independence and self-directed learning among all their students. As Hannah, a high expectation teacher, stated: ‘I might give them a range and say we could work on this, or we could work on that, what would you like to work on? So that they have got to take ownership of it.’ Low expectation teachers (whose pseudonyms begin with ‘L’), if they did provide choices, only made them available to high-achieving students.

High expectation teachers monitored their students’ learning closely. Often, they set aside time in their reading or mathematics programme to test students individually; these assessments were formative, in that teachers used the information they gained to change the levels students were working at for instruction and to determine the next steps in the students’ learning. On the other hand, the low expectation teachers were more concerned with summative assessment, and there were few group changes in their classes. Their monitoring of student progress was also far less frequent. This statement from Heather typifies the beliefs of high expectation teachers:

> The lessons are needs-based in that I give a lot of feedback to children and in the talking you know about them, and the watching, the observing, that’s the time when I actually identify their learning or lack of learning and what skill they need to sharpen next, so then I weave that into whatever I am doing.

The information that the high expectation teachers gleaned from monitoring their students’ learning was then used to set goals with the students for the next steps in their learning, as Heather, a teacher of Year 2 students, explained:

> Well I think they have to know what they can do. We talk about goal setting, and resetting goals and going forward again, and then coming back and reflecting on it . . . Actually knowing what it is that they are learning to do is really powerful and potent. So it’s easy for the children to know what they are working on and I try to always be specific about why we are doing it because I just think that’s educationally sound. I think they need to know when they have made personal progress.

In contrast, only one low expectation teacher, Lauren, spoke about goal setting. Her students set goals at the beginning of the year, and occasionally during the year she asked them if they had achieved their goals (‘Put your hands up if
you have achieved your goals’), but there was no regular examination of the students’ goals or resetting of them. Lauren’s students had vague goals that did not direct their learning. Whereas the goals in Heather’s class were specific, regularly revisited and changed as the students made progress, those in Lauren’s class were global and not used as part of the ongoing teaching and learning. Goal setting was a strategy that high expectation teachers used explicitly to develop their students’ learning and independence.

The high expectation teachers wanted to ensure that their students were highly motivated and engaged in learning. Their stance was that the low-achieving students needed to become more motivated and engaged, which in turn would increase their achievement. They viewed these students as lacking motivation rather than lacking ability. So the high expectation teachers developed a range of approaches. One was that they tapped into student interests, even in core curriculum areas such as reading and mathematics. Helen said: ‘I’m always looking to see what interests children.’ Holly spoke about a group of boys in her Year 5/6 class who enjoyed playing cricket but had not yet mastered their basic facts in mathematics:

I have a couple of really low kids who aren’t interested in maths and just don’t like it, but they love cricket so we found some batting averages activities and they just loved it and they worked on that problem for 40 minutes until they worked it out . . . Sometimes it’s finding activities that they are interested in, rather than just doing something they are not into.

In contrast, perhaps because the low expectation teachers seemed to believe that the students not achieving at high levels needed more repetitive, low-level tasks, none spoke about using student interests to engage them in reading and mathematics. Similarly, whereas the high expectation teachers appeared to understand the importance of fostering student intrinsic motivation, low expectation teachers more often spoke of providing students with incentives and rewards. Heather, a high expectation teacher, had a quite different viewpoint:

I just think that having mixed ability . . . is really important so that they have all got a contribution to make and their skills, their particular skills are valued this way because if you have a pecking order in the class, motivation can go out the window and you won’t see star charts and stuff like that in my room. I am more interested in intrinsic motivation than extrinsic so I don’t have them.

Thus, there were differences in teachers’ beliefs about goal setting, depending on whether teachers were high or low expectation teachers. Weinstein (2002) found that her low differentiating teachers expressed similar views to those of the high expectation teachers in my project. They also used student interests to motivate their students and focused on the processes of learning, such as noting
successful ways to solve problems. The low differentiating teachers provided students with the opportunity to evaluate their own work, and they were also encouraged to provide feedback on the work of their peers. This helped to motivate students, and, again, the emphasis was on intrinsic rather than extrinsic motivation.

**Mastery and performance goals**

Mastery goals relate to an individual’s learning and skill development. They focus on the next steps and so they provide a clear pathway for student development. Mastery goals are skill-based, so that students know which skills they should be working towards mastering. The goals are challenging yet achievable. Because they are individually based, the focus is solely on the individual and their learning. For these reasons, mastery goals promote students’ intrinsic motivation and engagement, because they are also linked with enhancing self-efficacy (Bandura and Schunk 1981). Mastery goals are generally favoured over performance goals in the literature, because performance goals necessarily imply winners and losers – and clearly not everyone can win. With performance goals, students are aiming to outdo others; individuals are only interested in the task to the extent that it leads to their success when compared with others. Achieving learning is not at the forefront. Everyone can achieve skill-based goals at their level. Not everyone can win. Nevertheless, there has been some debate in relation to mastery goals being ‘good’ and performance goals being ‘bad’.

Whereas studies consistently find positive associations between mastery goals and achievement (Rolland 2012), the associations between performance goals and achievement have been mixed and not always negative. Elliott and Harackiewicz (1996) introduced the conception of performance-approach and performance-avoidance goals into the literature as one explanation for the mixed findings. They showed that, where students adopted performance-approach goals – that is, goals whereby the student was striving for high achievement and high status – this orientation led to students being intrinsically motivated. When students espoused performance-avoidance goals – that is, they attempted to avoid failure and tried to hide what they perceived as their own inferior ability so that they would not end up with low status – these attitudes were negatively associated with achievement.

One study (Shih 2005) that has examined the split between performance-approach and performance-avoidance goals was conducted in Taiwan, with 242 students aged 11 and 12. In line with other research findings, the adoption of mastery goals was associated with student motivation, engagement, and achievement (school grades). Shih (2005) was also able to show a distinction between performance-approach and performance-avoidance goals. Students high on mastery and performance-approach goals were also high in intrinsic motivation. However, students low in mastery goals but high in endorsement of performance-approach goals showed significantly lower intrinsic motivation.
than the high mastery–high performance-approach group. The author concluded that performance goals were not necessarily harmful for motivation, provided they were accompanied by strong endorsement of mastery goals. On the other hand, those who reported high levels of a performance-avoidance orientation also conveyed greater implementation of self-handicapping strategies than students whose endorsement of performance-avoidance goals was low. This study suggested that, although performance-approach goals were not necessarily associated with negative effects on motivation, the adoption of performance-avoidance goals appeared to have a debilitating effect on student motivation and engagement. However, students who showed a mastery orientation had higher grades than students who expressed either a performance-approach or performance-avoidance goal orientation. Nevertheless, students who adopted performance-approach goals reported greater use of a variety of cognitive strategies than did those with a performance-avoidance goal orientation. Overall, it appears that mastery goals are most positively related to learning and affective outcomes, but performance-approach goals do appear to be more effective at motivating student achievement than performance-avoidance goals.

However, although mastery and performance goals are presented most often as a dichotomy, it is more likely that they are each on a continuum. Some students are high in both a mastery and performance goal focus; others are high in mastery and low in performance goals, and so on. I know that I can easily call to mind situations in which I have really wanted to learn something but have also wanted to achieve well. For example, when I was completing my master's degree, I loved the educational psychology course I took and keenly read articles and books about the various topics presented. However, I also knew that obtaining good grades was important if I wanted to pass my degree with honours and be able to go on to a doctorate, and so, not only did I thoroughly enjoy the learning, but also my goal was to perform well. Indeed, some researchers (Hidi and Harackiewicz 2000; Babad 2009) have suggested that, rather than thinking of goals as a dichotomy, we should be thinking of goals as multidimensional.

In a recent meta-analysis, Rolland (2012) showed that, in studies where students were in Grade 6 or below, an emphasis on performance goals was detrimental for achievement, whereas, for students in Grade 7 and above, a performance goal orientation was positively associated with achievement. This difference between younger and older students may relate to school structures. Traditionally, schools have taken a behaviourist approach to achievement, rewarding academic success and, by omission, attributing low status to those who did not achieve highly. This approach, which is still prevalent in secondary schools, leads to students trying to outdo others. The examination culture of high-stakes assessment results in pressure on students to perform – suddenly, the emphasis is on extrinsic rather than intrinsic motivation, which is a substantial change for many students. This approach may suit some students, but is detrimental to the achievement of others. Wentzel (1997) has argued that this change in focus may result in decreases in student motivation. Further, Marsh
and colleagues (Liem et al. 2013) have cautioned that aggregating data across all achievement levels is fraught and disguises between-group differences. They (Liem et al. 2013) have shown that, when secondary school students are streamed, those in higher streams have lower self-concept relative to achievement than do those in lower streams. They argue that this is important, as self-concept has been linked with educational achievement, motivation, and future aspirations. Marsh (1987) has identified the ‘big-fish-little-pond’ effect, whereby students who are among the top achievers at primary school find that they do not do so well in a large secondary school when they are streamed. Suddenly, they are a high achiever among many others. This can lead to a lowering of self-esteem, which aligns with the negative effects on self-esteem that have often been attributed to those in the lowest streams (Oakes et al. 1992). Hence, streaming, which necessarily emphasizes achievement, can have detrimental effects on the self-concept of the very high achievers as well as the very low achievers. In turn, lowered self-concept may lead to performance avoidance, decreased motivation and, in some situations, to students eventually dropping out.

It would seem, then, that, taking into consideration the potentially negative effects of performance goals, it is probably best if teachers emphasize mastery goals. Mastery goals have commonly been associated with positive achievement outcomes (Morisano 2012). Certainly, an emphasis on mastery goals has not been associated with any negative effects on student learning, and, indeed, mastery goals have been found to be related to deeper thinking and more systematic processing of classroom information, greater effort and persistence in the face of difficulty, increased motivation and enhanced interest in academic learning (Morisano 2012). Nevertheless, it is not possible to escape the high-stakes assessment environment, but it is possible to use the results of tests and examinations in a formative manner, to guide learning and to help students see the next steps in their learning. This is a more productive direction than focusing on performance. From this perspective, goal setting is closely linked to self-beliefs and posits that, when students believe that they can succeed at school activities, they are more like to engage in them, to persist when the task is challenging and, therefore, to be successful (Wigfield and Cambria 2010).

### Goal setting in the school environment

An aligned position is that goal setting promotes student motivation, and that enhanced motivation for learning is related to success. This is because mastery goals provide direction for student learning, although they are not sufficient to guarantee success. Students need to develop productive study skills and strategies if they are to achieve their goals and become independent learners. Teachers, on the other hand, need to provide clear, formative feedback and support if the achievement of goals is to be realized (Hastie 2013). Hence, the constructs of motivation, engagement, autonomy, evaluation, feedback, and goal setting converge.
Locke and Latham (1990) originally proposed the idea that goal setting explained why some individuals performed better than others on tasks. Their theory was developed within industrial organizational psychology, but has since been applied to many other fields, including education. According to their conception, the main components of goal setting are goal choice and goal commitment. Goal choice refers to the actual goal selected, as well as the level at which it is to be attained. Goal commitment includes a volitional element and relates to the degree to which an individual is dedicated to the goal, how passionate they are about the goal, and how resolute they are in wanting to achieve the goal.

For a goal to be achieved, Locke and Latham (1990) proposed that three conditions needed to be met. First, the individual had to have the capacity to meet the goals; second, they needed to be committed to the goal; and, third, the goal needed to be specific and clear (see Figure 12.1). The processes involved in meeting the goals included that there needed to be dissonance between what an individual had currently achieved and what they would like to achieve, but the individual had to consider the goal to be achievable. Indeed, Sieijts et al. (2012) have recommended that the setting of high-level goals should be avoided if individuals do not possess the knowledge and skills to be able to complete the task. Commitment to the goal ensured that the individual persisted in trying to meet the goal, and, as long as the goal was specific and clear, this led to motivated effort towards the goal and engagement with the goal. When an individual believed that they could achieve the goal and they desired accomplishment of the goal, this was likely to lead to enhanced performance and learning.

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<thead>
<tr>
<th>Conditions required</th>
<th>Processes involved</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity to meet goals</td>
<td>Goals: Create a discrepancy between current and desired action or outcomes</td>
<td>Higher performance and learning</td>
</tr>
<tr>
<td>Commitment to goals</td>
<td>Motivate persistent goal-relevant behaviour</td>
<td>Sense of purpose and priority</td>
</tr>
<tr>
<td>Specific and unambiguous goals</td>
<td>Focus attention and effort</td>
<td>Increased sense of self-efficacy and self-management</td>
</tr>
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<td>Increased enjoyment of task</td>
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</tbody>
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**FIGURE 12.1** Conditions, processes and outcomes of goal setting
Commitment to a goal, resulting in persistence, was proposed to give the individual a sense of direction and purpose. Finally, having specific goals led to engagement of the individual, meaning that the task became more enjoyable, and achievement of the goal led to greater self-efficacy and self-regulation or self-management.

Because goal setting has been shown to be effective in lifting performance, the field has seen literally hundreds of studies. Setting goals, regardless of whether they are mastery or performance goals, certainly appears to be better than not setting goals at all. In a recent study (Morisano 2012), undergraduate students who were struggling academically were randomly assigned to a goal-setting programme or a placebo intervention. Students in the goal group were taught how to set personal goals and to develop steps to meet their goals. By the end of the semester, those who were in the goal group achieved statistically significant grade improvements, even though there was no difference in the students’ achievement at the beginning of the experiment. The GPAs of the students in the goal group increased by 30 per cent following the intervention. Further, of the students in the control group, 20 per cent either dropped out in the following semester or decreased their course load to part-time, whereas all students in the experimental group maintained a full course load, and none dropped out. The experimental students also showed improved affect and attitude towards their coursework, when compared with their earlier beliefs. Hence, this study showed that even a relatively short intervention aimed at enhancing students’ skills at setting challenging but appropriate goals could significantly and positively affect the outcomes of undergraduate students.

Based on Locke and Latham’s (1990) work, researchers further explored the conditions required for goal setting to be effective. Within the realm of education, this has involved examining the usefulness of challenging goals for promoting student learning, compared with easier or ‘do your best’ goals (e.g. Locke et al. 1981). One of the optimal conditions for goal setting was that goals were specific. Researchers in the area of education (e.g. Bandura and Schunk 1981) have also examined the timeliness of goals, that is, whether proximal or distal goals assist students to achieve their learning. As reported above, self-efficacy is one determinant of whether or not students will engage with a goal in the first place; students have to believe that they can achieve a goal. Self-belief is a powerful predictor of both motivation and achievement (Pajares 1996), and thus this is a further factor that has been explored within education in relation to goal setting. I will explore these three conditions for successful goal setting – that is, challenging goals, proximal versus distal goals, and student self-efficacy and goal setting – in the next sections.

**Goal setting and challenging goals**

Students have been found to be more likely to engage with challenging rather than easy goals, and, indeed, more than 1,000 studies across many educational...
and business settings have shown that more difficult but specific goals lead to more advanced achievement than either easy goals or encouragement to achieve at one’s best (Sieijts et al. 2012). This is thought to be because attaining challenging goals results in high levels of satisfaction and increased self-efficacy and motivation (Mento et al. 1992; Bandura 1997). In one study (Schunk 1983) with elementary school students having difficulty with division, half the forty students were given challenging goals, and half were given easier goals. Half were encouraged to achieve their goals and were compared with their peers, whereas the other half were provided with specific information about their attainment. The students were more likely to correctly solve the division problems when the goals were difficult. When challenging goals were combined with feedback about achievement, this resulted in the largest increases in self-efficacy and in skill development. Comparative feedback was not effective in enhancing self-efficacy. It is likely that formative feedback enabled the students to reflect on their attainment of the goals and to adjust learning strategies where necessary, to enhance the probability of achieving the goals. The study above suggests that students who are struggling can be assisted to achieve at higher levels through the use of challenging goal setting. The setting of learning goals for and with students can lead to useful feedback from teachers, such that students come to view mistakes as a natural part of learning and move away from the more threatening scenario of endeavouring to show competence (Sieijts et al. 2012).

It has also been argued (Sieijts et al. 2012) that the achievement of challenging goals is more valued by learners than success with easy goals, because students engage in more cognitive effort to acquire the appropriate skills and strategies to achieve the goals. They realize that they have acquired new learning and skills and feel a sense of accomplishment. This particularly applies where goal achievement can be measured. The setting of goals that are appropriate for students’ level of achievement, challenging but at the same time measurable, means that students become aware of their own progress. Further, in an early study, Locke (1965) showed that low-achieving students benefitted from challenging learning goals and, when assigned a high-level mastery goal, they were able to achieve at levels approaching those of high-ability students. Achievement of goals enhances both self-efficacy and commitment, and increased self-efficacy and commitment lead to more likely goal achievement. Further, goals provide a focus on gaining knowledge and skills, rather than on the outcome, such that students focus on mastering the learning. Indeed, Sieijts et al. (2012) recommend the setting of learning goals rather than outcome goals, when students are faced with new and complex tasks. Nevertheless, despite the very large literature related to goal setting, relatively few studies have been conducted in primary school settings.

In an intervention study (Meece and Miller 1999) with Grades 3 and 4 students, teachers provided students with more opportunities to read and write more complex prose, while working collaboratively with their peers. Student goal direction paralleled the degree to which teachers implemented the intervention.
In classes where students were provided with repeated opportunities to engage in complex tasks, the focus on performance goals of all students, regardless of prior achievement levels, declined significantly. Also, in classes where teachers implemented the intervention more frequently, low-achieving students showed a decline in work-avoidance behaviours; they became more engaged in their learning.

**Goal setting and timeliness**

Goals can be proximal or distal. A proximal goal might be to complete the method section of a thesis within a specific time period, whereas the distal goal would be to complete the entire thesis. For students confronted with having to complete a long-term project (the distal goal), breaking this down into more proximal goals – for example, selecting the topic, finding material online, planning section headings, and so on – is likely to result in greater motivation, because the goals can be achieved relatively quickly. Moreover, progress towards the proximal goals provides students with feedback that they can be successful and is likely to result in enhanced self-efficacy. Primary school classrooms are ideal for promoting proximal goals, because they often emphasize learning intentions, whereby students are presented with what they will be learning during that particular lesson and what the success criteria are; that is, how they will know that they have achieved the learning (Clarke *et al.* 2003). So, within every lesson, students are provided with a proximal goal to be achieved within that lesson or within a short time frame. Bandura and Schunk determined that, ‘Proximal sub-goals provide immediate incentives and guides for performance, whereas distal goals are too far removed in time to effectively mobilize effort or direct what one does in the here and now’ (1981: 587).

In an experimental study (Schunk 1980), Grade 3 students were given a set of seven subtraction activities to complete. Students completed the activities on their own, over a series of sessions, but some students were directed to complete a certain number of tasks during each session, others were simply told to complete all activities, and the final group was given no goal. The students who were given a focus for completion gained more rapid understanding of the concepts, developed their skills to a higher level and showed greater self-efficacy and interest in mathematics than did students in either of the other two groups. Schunk concluded that self-directed learning through proximal goal setting could influence students’ performance outcomes.

The differentiation of relationships between psychological constructs and short- and long-term outcomes is also of interest in relation to goal setting. In a study with 979 students aged between 8 and 13 years, using structural equation modelling, the researchers (Yeung *et al.* 2012) measured the relationships between perceived competence, mastery goals, value of schooling, and interest in schooling with the short-term outcomes of acceptance of school rules and achievement, and with the long-term outcomes of identity and self-efficacy.
I will only report the results between perceived competence and mastery goals with self-efficacy and achievement, because these are the variables of most interest in the current chapter. Structural equation modelling enables researchers to determine the relative strength of relationships between various constructs. The endorsement of mastery goals negatively predicted proximal achievement but strongly predicted the distal outcome of self-efficacy. Perceived competence was strongly associated with both achievement and self-efficacy.

When confronted with a large and perhaps daunting task, adults often break the whole down into achievable goals. However, for students, and particularly young students, this can be more difficult. It may be that they do not have the developmental competence to enable them to effectively break tasks down into meaningful steps. Moreover, proximal goals are generally more specific than distal goals, and this probably also affects their helpfulness to students in terms of achieving the goals. Students are more aware of exactly what is required. Hence, the teacher becomes important in helping students to make tasks manageable.

**Goal setting and self-efficacy**

Goal setting and self-efficacy have been shown to be related, although specifically focusing on mastery goals has been associated with increases in self-efficacy, whereas focusing on performance goals appears to be related to decreases in self-efficacy (Sieijts et al. 2012). A cyclical relationship has also been reported between self-efficacy, commitment and performance (Sieijts et al. 2012), such that an increase in performance results in a positive effect on self-efficacy and commitment to mastering the learning, and self-efficacy and commitment to the learning goal result in enhanced performance. Zimmerman and Bandura (1994) suggested that, when self-efficacy was high, students would choose more difficult goals and would show greater commitment to their goals. Self-efficacy also affects how students manage failure. Those with high self-efficacy are likely to be more resilient to setbacks and will respond to failure by increasing their efforts and keenness to achieve the goal, whereas those with low self-efficacy may either decrease the complexity or level of the goal or abort their attempts at goal achievement (Sieijts et al. 2012). Thus, self-efficacy plays a mediating role in relation to goal commitment, the acquisition of skills, and perseverance. In turn, the achievement of skills and learning can affect self-efficacy and ultimately relate to academic achievement. Students need to believe that they can do well in order to achieve at high levels.

Whereas previous studies have tended to examine the relationship between one construct and achievement or the effect of one variable on achievement, more recently, using structural equation modelling, researchers have begun to examine the interrelationships of various constructs. In an Australian study with 276 undergraduate educational psychology students, Phan (2009) examined relationships between goal orientation (mastery and performance-approach,
performance-avoidance and work-avoidance goals) with the constructs of self-efficacy, deep processing, surface processing, and critical thinking, and explored whether these latter four constructs were interrelated. Whether any of these constructs or goal orientations predicted achievement was also measured. In this particular study, no direct relationship was found between self-efficacy and achievement. However, self-efficacy predicted both deep processing of information and critical thinking, and deep processing predicted achievement. The adoption of mastery goals also predicted self-efficacy and deep processing. However, the endorsement of performance-approach goals only predicted critical thinking, which was not related to student achievement. Performance-avoidance goals were found to be associated with surface processing of information, but not with any of the other constructs measured in the study, and, similarly, holding work-avoidance goals negatively predicted achievement but was not associated with any of the other beliefs being assessed. In another study, a longitudinal study with 264 psychology students, Phan (2009) examined the links between mastery goals and self-efficacy, deep processing, and critical thinking with achievement at two different time points, one year apart. This time Phan showed that self-efficacy at Time 1 affected achievement in the same year and performance one year later. Adopting mastery goals at Time 1 was also associated with student self-efficacy measured congruently, but then student self-efficacy at the first measurement affected the adoption of mastery goals one year later.

Nicolaidou (2012) examined the effect of implementing paper-based and electronic writing portfolios on fourth-grade student achievement in Cyprus. A total of 146 students took part in the study, three classes in one primary school, which formed the intervention group, and five classes from a different school, which were closely matched with those involved as part of the intervention group. The intervention students were trained in using portfolios and also in setting goals, conducting self-evaluations, self-reflection, and providing peer feedback. The self-efficacy of students in the intervention group, as well as their writing achievement, increased over time, whereas neither the self-efficacy nor the achievement of the control-group students improved in comparison with the intervention group. Interviews with students showed that they were able to set goals in relation to the progress they were making, assess their own progress, and adjust their goals in accordance with what had already been achieved. However, in this study, it was not possible to determine whether the use of portfolios per se had resulted in enhanced self-efficacy and achievement, or whether the training in setting goals, self-evaluation, and reflection facilitated greater student progress.

A construct associated with goal setting and self-efficacy is student conceptions of intelligence, introduced earlier. An association has been found between student conceptions of intelligence as either fixed or incremental and goal orientation (Dweck 1999). Students who have a mastery goal orientation tend to prefer tasks that will result in them increasing their knowledge and skills.
Students with this frame of reference view errors as a natural part of the learning process. However, students with a performance goal orientation are more likely to select tasks where they conceive that they will be able to achieve recognition in the eyes of their peers. Unfortunately, with students who are performance-oriented, errors are viewed as reflective of a lack of ability and so are likely to decrease student self-efficacy and commitment to the goal.

In a similar study (Rubie-Davies, forthcoming), with a sample of more than 2,000 primary school students aged 11–12 years, I analysed the association of mastery and performance goal orientation with notions of intelligence as either fixed or incremental, and I found that all the mastery items in my questionnaire loaded on to the same factor as the items related to notions of intelligence as incremental, and, conversely, all the performance goal items loaded on to the same factor as the items related to the notion that intelligence is fixed. This suggests that students who want to improve their skills and learning believe that they need to work hard in order to be successful. On the other hand, students who want to show that they are competent when compared with peers believe that students need to be born intelligent if they are to be successful in school. Such beliefs can result in very different motivation and self-efficacy. The former group are likely to persist in learning new skills until they are successful, whereas the latter group may become disheartened easily if they encounter difficulties in learning new concepts or skills.

### The teacher role in goal setting and goal achievement

#### Goal setting and feedback

Teachers can assist students in setting goals and encourage them to reach their goals through carefully targeted feedback. Feedback in relation to student goals provides students with information about their progress towards a particular goal. Such feedback in relation to goals may be regarded as formative in terms of student learning. The feedback provides information to the learner and can, therefore, scaffold their learning. As I stated earlier, feedback is known to be a positive motivator for students and has powerful effects on student learning outcomes (Hattie 2009). Carefully directed feedback can encourage learners to complete more advanced activities and to participate in higher levels of cognitive thought and problem-solving than they may achieve without the support of formative feedback (Shute 2008). Bransford et al. (2000) suggested that, when teachers employed a goal-directed approach to learning accompanied by feedback, this approach enhanced student interest in the task, simplified the task such that it became more manageable and achievable for students, provided direction for the student so that they could engage with the goal, clearly established the gap between what the student already knew and what was expected if the goal was to be achieved, reduced frustration and the risk of failure,
and provided clear guidelines in relation to the task to be completed or goal to be met.

A necessary condition of feedback is that the student correctly interprets the feedback and makes use of it. Feedback may also be useful in altering students’ goal orientation. For example, Shute (2008) reported that specific feedback was particularly useful for students who had low levels of mastery orientation and those who had high performance goal orientation. This may be because providing a focus on the task and skill development, rather than on a desire to outperform others, may result in students engaging more with the learning. Indeed, feedback focusing on comparisons with other students has not been found to be useful for enhancing student engagement and achievement, whereas providing self-referenced feedback has not been found to have detrimental effects on motivation and achievement (Shute 2008).

A recent study in Germany (Rakoczy et al. 2013), with 146 students in ninth grade, investigated the effects of process versus social comparative feedback on student perceptions of the usefulness of the feedback and whether the feedback provided competence support. Whether or not the perceptions of feedback were moderated by student goal orientation was also tested. Students received feedback that advised them about the skills and understandings they already had and provided suggestions for how they might improve further. On the other hand, the comparative feedback provided students with information about how they rated on a 1–5 scale, from very good to failure, and this was compared with an average score of 3. Students perceived the process feedback to be more useful than the competence feedback, and this, in turn, was associated with perceptions of enhanced interest in mathematics and improved achievement. The process-oriented feedback also led to students feeling supported in their quest to improve their learning and skills in mathematics. Further, student goal orientation influenced perceptions of the usefulness of the feedback. Students with high mastery beliefs perceived the process-oriented feedback to be useful, whereas students with low mastery beliefs did not view such feedback positively. It appears that, because the aim of students with a high mastery goal orientation is to improve their skills and learning, they therefore find process feedback to be useful. Those who have less interest in improving their learning find feedback about how to increase their skills and knowledge to be less useful.

The teacher role in influencing student goal orientation

The study above suggests that teachers may be able to alter student goal orientation through feedback. If the understanding that students gain from the teacher is that gaining skills and knowledge is important, they could be taught to focus on mastery goals. However, if the message that teachers give is that outperforming others is what is valued, then students may strive to achieve at levels beyond what their peers are achieving – an unrealistic goal for some. Meece and Miller (1999) tracked the goal orientation of two groups of students, one
group of 203 students, from Grades 3 to 4 to 5, and the other group of 228 students, from Grades 3 to 4. They measured student mastery goal orientation, performance-approach goals, and performance-avoidance goals. All students across all grades showed higher levels of mastery goals than they did performance-approach or performance-avoidance goals. Between Grades 3 and 4, student mastery and performance-approach beliefs in the first cohort of students declined significantly, perhaps because, at this point, high-stakes testing was introduced to the students. However, in the second cohort, students came to have less focus on performance goals. In Grade 3, student work-avoidance goal orientation fell over the course of the year, but then increased in Grade 4 for both cohorts and increased further in Grade 5. The researchers proposed that, because the statewide assessments began at Grade 3, students became less focused on gaining learning and more concerned with grades. This concern with grades led some students to show increased levels of work avoidance.

In a follow-up study, the researchers (Meece and Miller 1999) introduced an intervention into eight Grade 3 classrooms. Because of the increased focus on assessments, Grade 3 teachers gave students brief reading and writing activities with associated questions requiring mostly one-word answers from the students. The researchers introduced an intervention that meant that students read more complex and lengthy text and wrote multiple paragraphs in response. Collaboration among students was encouraged. Half the teachers adhered closely to the implementation of the intervention, whereas the other half did not. Hence, the researchers compared the results for students whose teachers were classified as either high or low implementation teachers. Changes in goal orientation were measured for high, mid-range, and low achievers. In the high implementation classes across all achievement levels, students declined in their performance-approach goals, whereas there was no change in the low implementation classes. A further finding was that, in contrast to low achievers in the low implementation classes, beliefs in work-avoidance goals decreased in the high implementation classes. Overall, in both the longitudinal tracking of students’ beliefs about goal orientation and in the intervention study, the results suggested that what teachers do in classrooms may influence students’ beliefs.

A few studies (although very few) have documented differences in the discourse in classrooms portrayed as high or low mastery-oriented and high or low performance-oriented. Studies such as these are similar to ones I have conducted exploring differences between the beliefs and practices of high and low expectation teachers. Researchers investigating goal orientation are interested in how teachers portray their beliefs that their classroom is a mastery- or performance goal-focused classroom. In one study (Patrick et al. 2001), four classrooms were identified by students as being, respectively, (a) high mastery and low performance, (b) low mastery and low performance, (c) low mastery and high performance and (d) high in both performance and mastery. Extensive, ongoing observations took place at the beginning of the academic year (990 minutes in the first three weeks), then at regular intervals throughout the autumn...
and, finally, for three 90-minute periods in the spring. Observers kept running records of everything that occurred in the classrooms that could be associated with student identification of the classrooms as high or low mastery or performance.

Generally, teacher behaviours and practices emulated what might be expected, given the theoretical construct (Patrick et al. 2001). Nevertheless, there were some observed discrepancies or nuances that did not necessarily align with theory. Both high and low mastery teachers publicly revealed student academic achievement. The high mastery teachers, however, simply presented the performance results, without any inference that they implied effort or ability, whereas the low mastery teachers often made emotion-laden comments that related to their (lack of) confidence students could actually achieve the learning or to the need for students to put in more effort. Likewise, the high and low performance teachers rewarded students for responding correctly to questions and commented about student performance on academic tasks. However, the teachers who were judged to be low in performance orientation did not place any importance on grades, summative assessments or the relative attainment of students as being indicative of ability or in possibly foregrounding future success, whereas the high performance teachers did relate assessment results to student ability. Hence, it seemed that it was not so much the presence or absence of comparative information and rewards that led students to judge the goal orientation of classrooms in particular ways, but rather it was how teachers used the assessment information and rewards and the meaning that the teachers attached to the achievement evidence.

The authors (Patrick et al. 2001) were particularly excited at one finding that related to differences in teacher beliefs about how students learn, depending on whether or not they were high or low mastery- or performance-oriented teachers. The high mastery teachers both spoke about learning as requiring student involvement and understanding and they emphasized student collaboration in enhancing learning. Hence, they encouraged all students to participate in answering questions and encouraged students to support each other and work together. They praised student effort and improvement. In contrast, the two low mastery teachers appeared to believe that learning occurred when students sat and listened to the teacher. They emphasized a transmission approach in which they passed on knowledge to students. Hence, they rewarded students for following procedures correctly. Further, they imparted knowledge to students and then provided practice opportunities to consolidate knowledge, but, during this time, students were not allowed to interact or support each other. Memorization was deemed important, and so there was an emphasis on learning facts and obtaining correct answers. Mostly, only high-achieving students were encouraged to take an active part in lessons. Taken together, the evidence suggested that the motivational climate that teachers created in their classrooms might stem from their implicit beliefs about how students learn. One exciting finding from these close observations in classrooms was that, in the high mastery-
focused classrooms, teachers showed what could be defined as pedagogical caring (Wentzel 1997). In contrast to the low mastery-focused teachers, the high mastery-focused teachers not only showed concern for students, emotionally and physically, but also expressed concern and support for students’ learning and the progress they were making. The authors (Patrick et al. 2001) suggested that it was not sufficient for teachers to communicate warmth to students as an indication of mastery goals. Instead, teachers also needed to communicate high expectations and an interest in what students were achieving in their learning. Hence, overall, in the same way that there are quite stark differences in the classrooms of high and low expectation teachers, this particular study showed that teacher goal orientation appeared to relate to contrasting beliefs and practices.

In a subsequent study (Turner et al. 2003), the authors examined the teacher discourse in two elementary school classrooms that students had identified as being both high mastery and high performance. Nevertheless, in one class, student outcomes were more positive than in the other class. The differences appeared to relate mostly to the affective environment created by the two teachers. In the class of Teacher 1, students espoused an incremental view of intelligence. This was because the teacher was frequently encouraging of student efforts, worked hard to ensure students were engaged and often praised them for their learning. She complimented both individuals and the whole class. The students perceived her positivity to be genuine. Further, she encouraged student collaboration and peer support. Students frequently celebrated individual achievement. When students made mistakes, Teacher 1 persisted in rephrasing explanations or prompting students until she was confident that they understood the concept being taught. This led to the students viewing mistakes as part of the learning process, so that there was no pressure to demonstrate capability when compared with others. Overall, this teacher promoted mastery goals, while also encouraging students to strive for excellence, but not jeopardizing their self-beliefs.

The class environment of Teacher 2 was quite different. The atmosphere was more negative, and this appeared to result in a higher level of avoidance than in the class of Teacher 1. Teacher 2 made frequent comments that were unsupportive of student motivation and probably led to students being more anxious and doubting their own self-worth. Unlike Teacher 1, Teacher 2 did not take advantage of times when students could have publicly or privately demonstrated their understanding of concepts. She was more likely to point out their mistakes than their successes. In this classroom, student mistakes were often blamed on students not putting in effort, and the teacher at times made disparaging comments to students. Teacher 2 appeared to have high expectations of students, but did not put the supports in place to enable them to become successful. Instead, the students reported that their teacher wanted them to learn, but, because of the likely negative consequences of failure in terms of the teacher discourse, the students deflected blame for their mistakes, a form of avoidance behaviour. This study showed that the goal orientation that students perceived
was not sufficient to ensure high achievement. The interactions with teachers played an important role in determining student goal focus and learning outcomes.

**Goals and ethnicity**

There are very few studies that have investigated whether there is cultural diversity in terms of the favoured goal orientation and relationships with academic achievement (Covington 2000). One exception is an investigation by McInerney *et al.* (1997), who explored the relationship between student goal orientation, ethnicity, and academic achievement among European, Australian Aborigine, and Native American high school students. Across all groups, there was no association between a performance orientation and school grades. Similarly, in a recent study (Rubie-Davies *et al.*, forthcoming a), no differences were found in the goal orientation of New Zealand Māori, Pasifika, Asian, and European primary school students. However, Freeman *et al.* (2002) did find that African American elementary school students were more mastery- and less performance-oriented than white students, but were more extrinsically motivated. The authors argued that sanctioning extrinsic goals may be useful for African American students, because of their social reality, but also perhaps that endorsing extrinsic goals led to African American students adopting more facilitative learning patterns. There are too few cross-cultural studies to draw any conclusions about the goal focus of different ethnic groups and whether, indeed, these differ systematically. Nevertheless, in our increasingly diverse classrooms, it does appear that, for all groups studied thus far, a mastery goal focus is more adaptive for student learning than a performance goal focus. It is unfortunate that the assessment-driven culture places such an emphasis on performance, which does appear to be maladaptive for many students’ learning.

**Goal setting: key ideas**

This chapter has shown that mastery goals appear to be more positively associated with learning than performance goals, provided they occur within a supportive context. Importantly, teachers can play a role in altering student goal orientation, such that students have clear, achievable yet challenging goals that enable them to see their own progress. This is motivating for students in and of itself. However, teachers need to show emotionally and instructionally supportive practices that enable students to feel safe making mistakes. Students need to understand that errors are part of learning. In the following chapter, I will introduce some practical strategies for teachers that can assist in developing autonomy and motivation in students, through helping students to set mastery goals, coupled with evaluative feedback designed to promote student learning.
As we saw in the previous chapter, the teacher can play an important role in assisting students to set appropriate, yet challenging, goals that focus students on their learning and avoid comparisons with other students. In this chapter, I will introduce a range of ways in which teachers can work with students to promote student motivation, engagement, and autonomy, and help students to set clear learning goals, monitor progress, and provide useful feedback on learning.

**Assessment for learning as a goal-setting tool**

In the assessment-driven culture that currently pervades schools, it is easy to forget that assessment is not simply about recording a mark against a student’s name. Assessment should be for learning and teaching. Thus, because marks or grades on their own have little value for learning and teaching, summative assessment will be of little value for the teacher, unless that mark or grade is then used to inform teacher planning and student learning – that is, unless it is translated into teaching action. Formative assessment, on the other hand, is more often considered to align with teaching and learning goals, because it provides the teacher with information about how students are getting on and what they need to learn next. However, the choice of assessment is not as straightforward as choosing formative over summative assessment. There is also an issue with formative assessment – namely, whether the information the teacher is gaining is valid or not. Often, the information that teachers gain from formative assessments is based on teacher-made tests and observations during class sessions. Unfortunately, the evidence (Hattie and Yates 2013) suggests that teachers are not as good at designing objective and useful tests as they perceive they are. Summative assessments, on the other hand, more often come from standardized
tests and can, therefore, be argued to have validity. Further, observations and the marks assigned to formative tests can be biased in situations where teachers hold either unwarranted high or low expectations for some students (Alexander and Entwisle 1988; Alexander et al. 1993).

Thus, a first step in goal setting with students is ensuring that the assessment information being used to set the goals can be trusted. Standardized tests such as e-asTTle provide the basis for use as both summative and formative assessment – assessment of learning, as well as assessment for learning (Clarke et al. 2003).

### Using standardized tests for goal setting: the e-asTTle example

In New Zealand, we are fortunate to have e-asTTle (http://e-asttle.tki.org.nz), which I described more fully in Chapter 5. Briefly, e-asTTle is an online assessment tool designed to measure student achievement and cumulative gains in mathematics, reading, and written language. It also has equivalent tests in te reo Māori (the Māori language), New Zealand’s second official language. One advantage of e-asTTle is that it can produce individual student reports that provide both formative and summative information. With e-asTTle, teachers create tests designed for their students that are directly relevant to what they are learning. In reading and mathematics, the test can be used with students from Years 4–12, and the written language test can be used for Years 1–12, enabling teachers to track student progress over time. Teachers using e-asTTle go online and create tests that are directly linked to the curriculum objectives and area that they are teaching. The teacher can specify the curriculum level or levels that the test should relate to, how long the test should be, whether it is to be delivered online or using paper and pencil, and even what curriculum objectives should be tested. Tests can range from 12 minutes to 60 minutes, depending on whether the teacher wants to test if students have learned some specific objectives or whether she wants a more global assessment of the students’ achievement.

Teachers can gain information for individual students, their class or the school, in relation to national norms. Comparisons can also be made with respect to gender, ethnicity, and schools that are similar to the teacher’s own. Further, teachers can gain a report for each individual student that outlines the specific learning objectives that individual students understand, as well as those that they still need to learn. Figure 13.1 is an example of the report that teachers get for each student. They can also get class- and school-level tables if they wish.

On the bottom left of the report are the three areas chosen to be tested by the teacher (number knowledge, number sense and operation, and algebra, in the example in Figure 13.1) and the student’s achievement in relation to national means (although here, too, other options could have been selected). The report also provides an overall score for the student, as well as showing their surface and deep levels of thinking. Each e-asTTle test also includes some attitude items, and so the teacher can select the type of attitude or belief they want to gain information about – in this case, motivation. The boxes on the right-hand side
Learning Pathways Report for Test: TEXFeb2011L3
Group:
Student:

**Correct**

**Strengths**
- Sketch & interpret whole number graphs of simple situations: (29)
- Use the mathematical symbols =, <, > : (28)
- Write and solve story problems using 1/2, 1/4, 1/3, 1/5 : (23)
- Write/solve story problems involving 1/2, 1/4, 1/3, & 1/5 : (23)
- Write & solve whole number story problems using +, -, x, /: (26)
- Use a rule to make predictions : (21)
- Perform calculations of addition/subtraction : (20)
- Solve problems using fractions of whole numbers or decimals : (20)
- Express quantities as fractions or percentages of a whole : (19)

**Achieved**
- Solve problems of the type (x+15=39) : (11)
- Explain the meaning of the digits in any whole number : (9)
- Perform calculations with time, including 24-hour clock : (10)
- Use graphs to represent number, or informal, relations : (8)
- Make sensible estimates & check reasonableness of answers : (1, 7)
- Classify odd/even numbers : (6)
- Describe rules for continuing number & spatial patterns : (3)
- Write & solve whole number story problems using +, -, x, / : (2)

**aMs**

**Incorrect**

**To Be Achieved**
- Order decimals and fractions up to and equivalent of 3 decimal places : (13, 16, 30)
- Solve simple linear equations such as (2x+4=16) : (14)
- Demonstrate the ability to use the multiplication facts : (15, 32, 37)
- Express a fraction as a decimal, & vice versa : (16)
- Write and solve story problems using 1/2, 1/4, 1/3, 1/5 : (24)
- Write/solve story problems involving 1/2, 1/4, 1/3, & 1/5 : (24)
- Make sensible estimates & check reasonableness of answers : (22)
- Solve problems using fractions of whole numbers or decimals : (22)

**Gaps**
- Perform calculations of addition/subtraction : (4)
- Make statements about data shown in a statistical display : (5)
- Write & solve whole number story problems using +, -, x, / : (12)

**Motivation - Mathematics**

<table>
<thead>
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<th>Overall</th>
<th>Surface</th>
<th>Deep</th>
<th>Number Knowledge</th>
<th>Number Sense &amp; Operations</th>
<th>Algebra</th>
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<td>1450</td>
<td>1415</td>
<td>1415</td>
<td>1421</td>
</tr>
<tr>
<td>Level</td>
<td>3B</td>
<td>3P</td>
<td>3B</td>
<td>3B</td>
<td>3B</td>
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<tr>
<td>Year 6 mean</td>
<td>1441</td>
<td>1440</td>
<td>1447</td>
<td>1448</td>
<td>1447</td>
</tr>
</tbody>
</table>

**FIGURE 13.1** An example of an e-asTTle report
show the objectives the student needs to learn next. The ‘Gaps’ box includes objectives that, considering the student’s current level of achievement, they should already know. The ‘To be achieved’ box contains objectives that, considering where the child is, are the next steps in their learning. On the left-hand side of the report are objectives that the student has already mastered. The ‘Strengths’ box has the objectives the student already understands and, considering their level, they would not be expected to know, and the ‘Achieved’ box shows objectives that the student has already mastered at their level. The small numbers in brackets next to the objectives indicate the item numbers from the test the student took; e-asTTle tests get progressively harder as students move through the items. It is possible to click on the objectives produced in the report, which takes the teacher to a ‘What next’ website that provides an expansive database of resources the teacher can use for teaching each related objective.

The presentation of the student results in visual form means that teachers can use the reports to discuss progress with students and parents. Further, and importantly for this chapter, the objectives provide teachers with a list of concepts that students need to learn next and so can be easily adapted to form learning goals for the student. Involving the student in the selection of the goals can be even more powerful in terms of increasing student motivation and autonomy.

Although I realize that not everyone reading this book will have access to e-asTTle, the point I am making is that summative tests can be used to identify what students have not yet grasped, and the information gleaned from the tests about what students do not yet understand can be used to set goals with students in relation to the next steps in their learning. In New Zealand, we are fortunate that e-asTTle does provide this information, but it is possible to look through student tests to determine what they have grasped and what they need to learn next. This changes a summative test, where perhaps a mark or grade is recorded and little else is done with the test, to a formative test, which is used to provide teachers with information about what students need to learn next. When the student is involved in this process, there can be positive benefits in terms of student motivation and autonomy. Once teachers have valid information on what a student needs to learn next, goals for that learning can be set.

### Setting SMART goals

One strategy for setting goals for learning is to use the specific, measurable, attainable, results-oriented and time-bound (SMART) goals method. For the goal to be specific, it needs to be explicit and concise. For it to be measurable, there needs to be a result that can be measured in some way, such that achievement of the goal can be determined easily. Attainable goals will be realistic for the student within a given time frame, but keep in mind the findings from the previous chapter that, although the goal should be attainable, it should also be challenging. A results-oriented goal helps to focus the student on the big picture. A time-bound goal provides a clear time frame within which the goal must be
achieved. Vague goals do not provide a clear focus for students and so do not enhance motivation or engagement. So, for example, a goal such as ‘I will get better at reading’ does not provide a clear focus for students, whereas a goal such as ‘I will read one chapter of a book each night for the next month’ provides far more clarity and direction for students. The objectives in Figure 13.1 are specific, measurable, attainable (because they relate to each individual student’s achievement) and results-oriented (i.e. the student will know when they have achieved the goal), but are currently not time bound. The teacher would just need to add a time frame to the student goals – perhaps that the goal will be completed by the end of the term or in one month. However, these goals or learning objectives are written for teachers and relate directly to the New Zealand curriculum. It may be, especially for younger students, that these goals would need to be rephrased into language that is more appropriate for the child. Figure 13.2 provides goals for primary-age students that meet the criteria of being SMART goals. The mathematics ones have been adapted from the student e-asTTle report in Figure 13.1.

Clearly, one student would not be aiming to achieve all the goals from the e-asTTle report in 1 month. It may be that they choose three goals. They could have three academic goals and one social goal (e.g. ‘By the end of this month, I will sit on the mat without touching other people’, or, ‘I will compliment at least one person each day over the next month’). There could be one goal from

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Reading</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the end of this month, I will be able to collect data about how many books people in my class have read, display what I found in a bar graph and explain what it means.</td>
<td>By the end of this week, I will be able to explain the purpose of the index, contents page, title page and glossary in the book I am currently reading.</td>
<td>By the end of this month, I will be able to use speech marks correctly in my writing 80% of the time.</td>
</tr>
<tr>
<td>By the end of this month, I will be able to add and subtract two digit numbers accurately at least 90% of the time (I need to get 9 out of 10 correct).</td>
<td>By the end of this month, I will find 20 words in my reading books that I don’t know at the moment and will find out what they mean.</td>
<td>By the end of this month, I will make my writing more interesting by using describing words in all of my stories.</td>
</tr>
<tr>
<td>By the end of this month, I will be able to change fractions into decimals and decimals into fractions and get at least 90% correct.</td>
<td>By the end of this month, I will be able to explain the main idea for five paragraphs in my reading book that the teacher chooses.</td>
<td>By the end of this month I will use a topic sentence to introduce the main idea in the paragraphs that I am writing.</td>
</tr>
<tr>
<td>By the end of this month, I will be able to write and solve story problems using 1/2, 1/4, 1/3 and 1/5 and get at least 9 out of 10 correct.</td>
<td>By the end of this month, I will learn four new ways to solve words I don’t know and work out what they mean.</td>
<td>By the end of this month I will start my sentences in different ways so they are interesting to read.</td>
</tr>
</tbody>
</table>

**FIGURE 13.2** Examples of SMART goals that could be used with primary school students
three different curriculum areas, or there could be an intense focus on one subject, such that all the goals would come from one particular area. Although students may need help at first in learning to set appropriate goals, they very quickly become adept at this. One of the high expectation teachers in my early studies had a Year 2 class (age 6 years) who were confidently setting their own goals, but the teacher had worked alongside the students at first, teaching them how to set goals that would be valuable for their learning. This is an important point: students do need support at first to set goals, but increasingly will be able to take ownership of their own goal setting. The time invested in teaching students to set goals is well worth the effort. Students find goals motivating, and they encourage student autonomy. Hence, if SMART goals are to be used as the framework for setting goals, then, initially, time will need to be set aside to work with students, until they confidently understand how a SMART goal differs from other goals they may have set in previous situations.

One month seems to be a good time frame for primary-age students. It is not too distal, but enables some reasonably challenging and ‘meaty’ goals to be set. An hour once a month (perhaps on a Friday) can be built into the class programme for goal setting. With very young students, one week may be a sufficient time frame for goals to be achieved, especially when students are first introduced to goal setting. Whatever the decision related to reviewing goals, the important points are that progress towards goals is regularly monitored, and that students are frequently updating their goals. As I outlined in the previous chapter, it is important that the goals, particularly for younger students, are achievable in the short term, and, hence, this means that, as students achieve current goals, they need to set new ones.

In some classes, students have an exercise book in which they can record their goals; in other classes, the goals are displayed in the classroom. Goals could also be kept in a folder on a computer. Teachers can create templates that students can use each month to record their goals. Students can decorate their goal sheets, or they can be left plain; they can have illustrations, or not. The significance placed on goal setting, as indicated by the time spent with students on setting and recording goals and how they are recorded, is entirely at the teacher’s discretion. The point is that students should record their goals or make them public in some way. Writing goals down or sharing them with peers is a powerful motivator to completing the goals (Hayes et al. 1985).

### Personal best goals

Other researchers are proponents of different goal-setting strategies that can also be implemented in the classroom. Martin advocates the use of personal best goals, which he describes as ‘specific, challenging, competitively self-referenced targets to which individuals strive’ (2013: 356), although applying personal bests to the academic rather than sporting sphere has almost exclusively been done in high schools rather than primary schools. Personal best goals are far more motivational
for students than ‘do your best’ goals, which fail to provide sufficient specificity for students to be able to evaluate the degree to which they have succeeded in meeting the goals (Martin 2010b). ‘Do your best’ goals are those that exhort the student to do his/her best, but do not provide any clear direction. An example might be ‘I will try my hardest in reading.’

Martin (2013) describes personal best goals as potentially providing a bridge between a focus on mastery and a focus on performance goals. Similarly to SMART goals, personal best goals are specific and challenging. However, an important difference is that personal best goals have a competitive element, in that the student is aiming to do better than she or he has previously achieved, and, hence, the competition is always with the individual rather than among peers. For example, the goal might be to achieve 78 per cent on a mathematics test, because the student’s previous best was 72 per cent. Martin (2010b) argues that students enjoy the conception of achieving personal bests. They are focused on their own performance and put in great effort for their own personal satisfaction, rather than to outdo others. Martin considers that schools with a competitive orientation also accept personal best goals because they do allow some competition, albeit students are competing with their own prior performance. Moreover, personal best goals are focused on the student achieving excellence on their own terms, such that the goal will be challenging and yet achievable.

In his book, Martin (2010b) provides an example of a personal best score sheet and a personal best worksheet. The score sheet is designed for teachers to evaluate the degree to which they believe each student has achieved their personal bests. Teachers decide on the degree to which the student mark or grade for that term in their class indicates that the student has achieved their personal best (on a scale from 0 to 3 points, where 0 indicates that their mark was well below their previous personal best, and 3 means that the term mark or grade was equal to or above the student’s previous personal best). Teachers also evaluate student enthusiasm, engagement, and attitude on another scale, and the degree to which they have increased their skills on a final scale. Students receive a total score ranging from 0 to 10 (there is an additional point where the teacher judges that the student has consistently shown commitment to achieving personal excellence). The teacher can then write a brief comment related to either how the student might achieve their personal best in the next term (if they failed to do so this time) or how the student can sustain their good performance.

On the worksheet, students complete information related to either the mark they are aiming for in a particular subject or how they will find a better way of studying or working. In this way, the student can either choose an outcome goal, that is, a better score, or a process goal, which relates to how they will develop their skills or put in greater effort. Students next indicate if the goal will maintain or improve on their previous best, and whether or not they believe they can achieve the goal. Students then outline, in specific steps, exactly how they plan to meet their personal best goal and can tick off the steps when they
believe they have achieved them. Finally, the student evaluates whether or not they have reached their personal best and provides evidence. A new personal best is set.

As previously outlined, the setting of personal best goals is primarily aimed at high school students. However, it would be possible for primary school teachers who like to include competitive activities in their classes (perhaps at intermediate or middle school level) to adapt the student worksheet and teacher score sheet to suit younger students. At least then, if competition is to be included, it is self-referenced rather than focusing on comparisons with peers.

There is no doubt that personal bests are a key motivator for sporting activities, as athletes aim to jump higher, run faster, and throw further than they ever have before, and so, therefore, adapting the concept and applying it to the classroom make good sense. As with SMART goals, personal best goals are specific and measurable. They are definitely challenging, because the aim is to achieve higher marks than ever before, or to learn skills not yet grasped, but the goals do need to be attainable. For example, if a student’s previous best in a mathematics test is 65 per cent, a goal of achieving 90 per cent is probably unrealistic, but a goal of achieving 68 per cent may be possible. Personal best goals, as with SMART goals, need to be completed within a specific time period. They are also recorded, but, because students need to outline the steps needed to achieve the goal, they can tick off their progress. This provides a sense of accomplishment, as students can see themselves moving towards meeting their goal. This is likely to motivate students to continue with trying to meet their goal.

Again, as with SMART goals, the teacher needs to set aside time to teach students how to write personal best goals. At least initially, the teacher would probably need to monitor how realistic and attainable the goals were. Further, planning out the steps to meet the goals is likely to require teacher input, particularly when students first begin to develop their personal best goals and need to think carefully about exactly what they will need to do to achieve their goals. Of course, defining each step is the critical part if goals are to be met, because the steps provide a course of action and mean that the goals are more likely to be accomplished. It is unlikely, however, that students would be able to do this without at least some initial support from the teacher.

### Developing a portfolio

A quite different method of enabling students to set goals and to monitor their own progress is through the development of either paper-based or electronic-based portfolios. A portfolio is a planned and organized collection of evidence that can be used by the student and the teacher to reflect and check on the development of student skills and knowledge (Cole et al. 1995). The portfolio, whether in paper or electronic form, shows student progress. Students can use their portfolio to set goals, evaluate the degree to which they are improving and developing, and reflect on how well they are doing (Nicolaidou 2012). In a
supportive classroom community, students can share their portfolios with their peers and become involved in peer evaluation.

Portfolios can be used to gather evidence in most curriculum areas. Even in physical education, as we have seen above, students could keep a record of their best efforts or of improvement in skills. Generally, portfolios are used to gather evidence of student progress in a range of curriculum areas and then to reset goals. For example, the portfolio could include examples of mathematics work or tests. It could comprise selected pieces of written work; reading tests or a reading log; spelling tests; examples of artwork; or science, social studies or health projects, or parts thereof. What can be included is really only limited by what the teacher or the student views as being of value.

However, if the portfolio is to be worthwhile and useful in promoting student progress, there needs to be some form of self-evaluation and further goal setting incorporated into the assembling of materials. This could take the form of an evaluation sheet, prepared by the student or teacher, against which the student can reflect on their progress. For example, one slightly adapted from Nicolaidou (2012) and used to evaluate a student’s written language might have prompts such as:

- Did I organize my story/report into paragraphs?
- Did I ensure that each paragraph had a topic sentence?
- Did I include an introduction, main body and conclusion in my story/report?
- Did I use interesting describing words in my story/report?
- Did I proofread my story/report carefully, e.g. by checking the spelling of difficult words and making sure I used the correct punctuation?
- Did I avoid repeating the same words?

There would also be a few summary prompts designed to help students evaluate their work as a whole and to set goals for the next piece of written language. For example:

- What did you like best about your story/report? Why?
- What would you do next time to improve your writing?

For portfolios to be valuable in promoting student progress and motivation, they need to be visited and revisited regularly. This can mean that the teacher needs to set specific tasks that will be included in the portfolio, or it can mean the student is able to add in pieces of work that they are particularly proud of, as the year goes by – or there could be a combination of both. However, in the busy lives of classrooms and with the pressures of getting through the curriculum, I know that the time necessary to gather together samples from a whole class and put them together into a portfolio can seem overwhelming and possibly not justifiable, particularly if there are samples from a range of curriculum areas.
The digital age, however, offers far more efficient possibilities for putting together a portfolio, keeping track of what is contained therein, and adding to the portfolio over time. For example, if the final drafts of student written language are prepared on a computer, then it is a much easier task for the student to choose the piece they consider to be their best work to include in the electronic or e-portfolio than it is if the written language is in paper form. If each student has an electronic folder containing their samples of work, it is a much less arduous task for students to select work they or the teacher choose to be included and to add it to their own folder than it was when teachers needed to keep large containers of portfolios of student work, and needed to collect together samples of student work. For example, it may be that, by the end of each term, students need to have the following in their e-portfolio: one sample of written work, a reading log, one example of a mathematics test, a record of their spelling test results, and either a science or social studies project (or part of one). If these are collected electronically, it is much easier for the student to self-manage the collection and assembly of items for the portfolio than if the teacher must deliberately plan for specific tests and work samples to be completed on pieces of paper, rather than in exercise books, just so they can be included in the portfolio. These work samples provide evidence of goal achievement and a basis for setting new goals.

A further use of the portfolio is for reporting purposes with parents. During parent interviews, the portfolio offers a means of easily showing parents what their child is completing and how well. Showing parents what students have achieved immediately focuses the conversation on what needs to be learned next and what skills students will need to develop. Portfolios can also be sent home, and then returned to be added to, during the year. However, this becomes a challenge in and of itself when the portfolio is a folder containing examples of written work. Inevitably, there will be students who do not return their portfolio, and items can be lost or damaged. I remember several examples of dog or dinner disasters, when either met some prized piece of work. An e-portfolio enables students to simply copy and paste from the electronic folder on to a DVD or memory stick, which can then go home with the child. Losing the electronic record that goes home is not such a problem as with paper, because the original electronic folder would be stored on a computer at school.

Portfolios are very motivating for students because they show student progress. They can also become cumulative. In schools that decide that all classes will adopt portfolios, the student work can move from class to class. This is probably less easy to manage in paper form, and portfolios would become overladen if they were to move with the child from school entry through to the end of primary school. For this reason, it is probably best if the student keeps only one sample of work for each curriculum area tracked for carrying over to the next year. All the rest could go home with the student. Of course, e-portfolios do not pose the same difficulties in terms of storing student work and having it carry over from one year to the next. It would be relatively easy...
for the student to have one overall folder that contained sub-folders for each year, and for the student e-portfolio to move with the child from one class to another. If students are moving schools, the e-portfolio may also be useful for the next school to quickly gain an idea of the skills and understandings that the student needs to work on next.

Overall, the portfolio provides a useful tool for providing a cumulative record of student progress across a range of curriculum areas. It enables students to set goals for their future skill development and knowledge acquisition. It also offers teachers a record of student gains across one year or more and can be used in reporting to parents. It is a collection of work that students can be proud of, showing them what they have achieved and promoting student motivation, engagement and self-efficacy. For all these reasons, either the portfolio or e-portfolio provides a valuable resource for goal setting and student development.

Teacher feedback and goal setting

Teacher feedback is a crucial part of the student goal-setting process. The high expectation teachers used teacher feedback to let students know how they were doing in terms of meeting their goals, as well as to promote student motivation and autonomy. Also, as previously mentioned, feedback has powerful effects on student learning. It is effective, because it provides students with explicit information about their progress. The global term ‘feedback’ can be divided into the expressions ‘feedback’ (information about what the student already knows) and ‘feedforward’ (what the student needs to learn next), but often, the term ‘feedback’ is used to describe both processes. Hence, in this chapter I will use the term ‘feedback’ to cover both what students already know as well as what they need to learn next.

Feedback is defined as, ‘information with which the learner can confirm, add to, overwrite, tune or restructure information in memory, whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies’ (Winne and Butler 1994: 5740). Hence, feedback is designed to inform the learner about his or her current performance or understandings. At times, feedback will also provide information about what the student should do next. Feedback needs to enable the student to acquire skills or processes that will move them closer to their goal by enhancing their understandings, skills or beliefs. According to Hattie, feedback is most effective when it relates to goals that are ‘specific and challenging but when task complexity is low’ (2009: 175).

Teachers appear to believe that they provide their students with plenty of feedback, but this is not always the perception of students. In one study at the tertiary level (Carless 2006), almost 40 per cent of tutors believed that they gave students detailed written feedback that would enable the students to improve their next assignments, but only 13 per cent of students agreed. Similarly, 38 per cent of tutors believed that they followed up on written feedback in order to
improve student understandings and learning, but only 13 per cent of students agreed. Hence, it can be surmised that students and teachers may have different views related to the usefulness and effectiveness of feedback.

It is important, therefore, that the student understands the feedback that is being given, so that they can adjust their strategies for learning or increase their knowledge by using the feedback. If students are to be given challenging goals, it follows that there is learning to be done. Feedback, therefore, can assist the student in moving from what they currently know towards their goal, but the information the teacher provides to the student, whether written or verbal, needs to be based on the student’s current understandings or progress in skill development. If the feedback is too far beyond the student’s existing conceptions in relation to their goal, they may not be able to make the adjustments needed in their learning to achieve their goal. Feedback that is not based on student knowledge could be threatening to the students’ self-perceptions and may thwart rather than enhance their learning.

Feedback should be distinguished from instruction, in that feedback follows from instruction. To understand feedback, students need some core understanding of the skills or concepts they are learning. If they are at the stage of acquiring knowledge or understanding, the teacher focus needs to be on instruction rather than on feedback. If students do not have sufficient prior knowledge on which to base their understanding of feedback, it is important to first build understanding of concepts or skills. Feedback will follow, as the student progresses towards their goal.

There are three central questions in the feedback process: ‘Where am I going?’, ‘How am I going?’ and ‘Where to next?’ (Clarke et al. 2003). The first question relates to the goal or goals that the student has set. The second question concerns the student’s ongoing self-evaluation. Their understanding of how well they are doing in reaching their goal is likely to be helped by clear, specific feedback from the teacher that is based on student prior knowledge and can be easily interpreted by the student and readily put into action. The final question is about the next steps in the student’s learning. Information about how to proceed may come from the teacher, or it could be part of a plan developed by the student (perhaps in conjunction with the teacher) to reach their goal. These three questions are also a useful guide for teachers in thinking about planning for and guiding student learning.

Hattie (2009) explains that feedback can be focused at four levels: the task level, the process level, the self-regulation level and the self-level, and that the first three are most useful for student learning. Feedback at the task level lets students know how well they have understood or completed the task. The teacher might say something like, ‘You need to include some descriptive words in your story to make it more interesting.’ At the process level, feedback concerns the procedures needed to understand concepts or to effectively complete the tasks. The feedback might be, ‘You need to proofread your work carefully to make sure that a reader can understand which parts show where people are talking.’
Finally, at the self-regulation level, feedback is teaching students how to monitor their learning and how to direct and self-regulate their actions. An example might be, ‘You know how to use different sentence beginnings to make your writing interesting. Check that you have done this in your story.’ Feedback at these three levels is likely to be useful for the student’s learning, because it focuses on what needs to be done next and elucidates how the student can improve further in attaining their goals. Feedback at the self-level, however, is not so useful to students. Examples are, ‘Good boy’ or ‘Well done’. Feedback such as this focuses neither on the task nor on progressing the student’s learning.

Feedback at the self-level is sometimes thought of as praise. However, praise is not feedback, because it does not meet the criteria for feedback; that is, praise does not provide students with information about how they can close the gap between what they currently know and what they need to learn to reach their goal. Further, praise is directed at the self rather than at the task or skill to be learned. A focus on the action to be taken to achieve the goal is motivating for students; a focus on the self can be threatening to student self-esteem, self-efficacy, self-regulation skills and student self-beliefs about themselves as a learner (Hattie 2009). This is because such feedback is focused on the individual rather than on the task or the learning. Personal evaluations can lead to students avoiding difficult and challenging tasks for fear of failure, because, just as there is ‘Well done’, there is also ‘That is not good enough’, neither of which provides information about ‘Where to next?’ nor, indeed, provides answers to another important question, ‘Where am I going?’ Praise and criticism may answer the question, ‘How am I going?’, but do not provide any direction about how to get there.

A related idea is that classrooms should encourage students to attempt difficult tasks; indeed, as I have already outlined, challenging goals are more engaging and motivating for students. However, if students understand that taking risks and meeting challenging goals are at times going to be associated with failure or mistakes, but that, when they fail, they will be given clear guidance about how to overcome errors, they are far more likely to be motivated to continue. Students learn that feedback will focus on the task or learning the skill, and they soon understand that mistakes are part of learning. This creates a class environment where students develop the courage to try and do not become anxious about failure. However, if the feedback is personal, they are far more likely to take the easy route and avoid tackling challenging tasks, tasks that are far more likely to increase their progress than easy goals.

### Goal setting and links with teacher planning

Goal setting related to formative and summative assessments, SMART goals, personal best goals, and the assembling of work examples into a portfolio are all focused at the level of the individual student. However, these goals are most likely to emanate from whatever is the focus of the teaching and learning at the
class level. Clearly, student goals related to science or social studies, mathematics or reading would be closely associated with teacher planning for student learning across all curriculum levels. Student goal setting is, therefore, going to be facilitated in classrooms where the teacher makes clear exactly what students are learning. Unfortunately, the evidence (Robinson 2011) suggests that, in many classrooms, students are unsure about what it is that they are learning.

Uncertainty about what students are learning arises from teachers revealing to students what they will be doing, rather than what they will be learning. Teachers plan for student learning and then provide activities for students that will enable them to achieve the learning that the teacher has planned. Therefore, students know what they are doing, but, unless what they are learning is made explicit, students are left to interpret the teacher’s intention for their learning (Robinson 2011).

A book that is widely used by teachers in New Zealand (Clarke et al. 2003) advocates that each lesson includes the major learning intention being written on the board, using the acronym WALT, or ‘We are learning to . . .’ . For example, in written language, the learning intention might be, ‘We are learning to use descriptive words to make our stories more interesting.’ In mathematics, it might be, ‘We are learning to add two digit numbers’ and, in science, ‘We are learning to recognize the planets in our solar system.’ Depending on the particular lesson, the learning intention may be shared with the students at the beginning of a lesson, or it may follow some introductory teaching or motivational activities – but Clarke and colleagues (2003) advocate that the learning intention should be shared with students for every lesson. Sharing the learning intention with students makes explicit what they will be learning, and they will understand how the activities that follow the lesson introduction relate to what they are learning. This provides students with a clear focus and is likely to engage them in a directed manner in the learning activities. In work by Robinson (2011), the researchers observed written language lessons in two classes, and, when students were sent off to write, they were asked by the researchers what they were learning about. In both classes, the learning intention related to the deeper features of writing. However, this was never explicitly outlined to students, and so the interviews showed that their interpretation of what they were learning centred on the surface features of writing: for example, the quantity that should be written, punctuation, spelling, and how neat the work should be.

Sharing the learning intention with students means that they have a clear understanding of the focus of the lesson. Whenever the learning intention is shared with students, Clarke et al. (2003) suggest that the teacher then asks the children to generate the success criteria. The success criteria tell students how they will know that they have learned what the teacher wanted them to learn. The success criteria should also be visually displayed for students, possibly on a whiteboard, flip chart or in PowerPoint form. Simple formats such as these enable the learning intention and success criteria to be easily changed for each lesson,
but teachers can be as creative as they wish with displaying learning intentions and success criteria. Using the examples of learning intentions given in the previous paragraph, the success criteria successively might be: ‘We have used at least four describing words in our story about our visit to the farm’, ‘We can add the digits in at least ten of our equations correctly’ and ‘We can tell someone the names of eight planets in our solar system.’

Clarke et al. (2003) also suggest that, from time to time, the teacher orally provides students with the big picture related to what they are learning and why. They have found that this understanding and connection to the real world help to engage all students, but particularly low-achieving boys. For example, the big picture related to using adjectives in stories could be that, when we write stories, we are writing for an audience, and readers are much more likely to enjoy our stories if they are interesting.

Earlier, I suggested that, unless the learning intention is explicit, students may be unclear about what they are learning. One reason for this is that, in the study above (Robinson 2011), teacher feedback tended to be about the surface features of writing, rather than about achievement of the learning intention. This led students to the interpretation that they were learning about surface features. When students know what it is they are learning and the success criteria are clear, it follows that teacher feedback needs also to align with the learning intention and the success criteria, rather than with extraneous features of the student work, such as neatness. Clear alignment between feedback and what is being learned provides students with specific guidance for their future learning and goal setting.

Individual student goal setting is motivating for students and promotes student autonomy and self-regulation. Teacher feedback provides students with an understanding of the degree to which they have achieved their goal and what still needs to be learned. However, individual goal setting is likely to be more effective when it takes place within classrooms that provide students with an explicit understanding of what they are learning and how they can show that they have been successful. Further, when schools adopt a whole-school approach to student learning and support that incorporates both individual and class-level goal setting, this is likely to advance student progress on an even steeper incline. Goal setting is a powerful motivator for students, resulting in increased student engagement and more rapid progress through the curriculum. It is no coincidence that this was a strategy employed by all high expectation teachers.

### The voice of practising teachers

Those in the Teacher Expectation Project also noticed immediate benefits when they introduced goal setting to their classes: ‘[Goals] have helped with students recognizing their next learning steps and how they may get to the end results’ and ‘Students were more focused and managed their time better.’ And, because teachers found goal setting useful, some expanded the use of goal setting into several curriculum areas:
The students were able to think about what they were learning in reading and where their next steps were. They could co-construct success criteria showing what the learning looked like. Students could reflect on their learning. I used goal setting in maths too.

Initially at least, teachers facilitated the student goal setting, as had been advised in the workshops: that is, that students need guidance before they will be able to independently set their own goals: ‘[I provided] consistent feedback to students regarding progress and further goals. We did lots of goal setting and conferencing.’ Having goals visible so that students are often reminded of their goals appeared to be a useful strategy: ‘Goals were put on their desk each term. We reflected each week on goals/achievements and the impact they had had on their own learning. [I] discussed with students throughout the week what they were working on.’

However, in many of the classes involved in the Teacher Expectation Project, the teachers moved to students setting their own goals:

I share assessment information [with students]. The kids then choose their next learning goal. Once achieved [they] go back to their assessment to write another goal. The kids opt into testing when they feel they have shifted.

Students identify their own gaps and work in class to narrow or close their gaps. They conference with the teacher or their leader regularly. Leaders are aware of each kid’s goals and expectations and they support the children.

Using e-asTTle . . . has helped my students identify gaps in [their] learning and therefore helps them to set goals. Students use this information to find provided resources to help plug gaps. This has worked very well; each student has daily ownership of their learning.

We set goals in relation to self-management – we did this in steps and we were able to get to the point that students set themselves full self-timetable days while working on a particular inquiry – this was very successful.

Teachers had various ways of recording the goals, from within exercise books to other, more creative ideas: ‘I worked with one group using a bookmark with goals I had written. Next time I would write the goals with the children and then laminate them. The bookmark worked . . . because the children could refer to them easily.’ ‘We wrote up our school vision and then students formed personal goals for the year. These were displayed around a self-made tree. Students set goals for the “heart, mind and spirit”.’

It appeared that, even though goal setting was introduced into several classes later in the year, both teachers and students had found it beneficial. Teachers had a key role in the success of the intervention, and I was fortunate to have
such an enthusiastic group involved in implementing the practices of high expectation teachers into their classrooms. However, principals also can play a key role in ensuring the success of any changes in teacher practice. When principals lead change for the benefit of students and teachers, change is likely to happen. In the next chapter, in which I sum up information contained in this book, I focus particularly on this potential principals have to lead all teachers in their schools in becoming high expectation teachers.
I began this book by mentioning the ongoing rhetoric of policy-makers and school leaders about having high expectations for all students. Often, the call is there to have high expectations for all students, but there is no guidance as to what that might look like in the classroom. Without clear parameters on how to translate having high expectations for all students into action, the calls are empty oratory. A primary aim of this book has been to paint a picture of what high expectations mean in the day-to-day life of the classroom.

High expectations do not mean having the same expectations for all students: high expectations are relative to each individual student. High expectations are beliefs that all students will make accelerated progress, beyond what they have previously achieved. That is, in this classroom, the learning trajectory of all students will be augmented.

Much of the change in the steepness of the incline of student progress relates to opportunity to learn. Conversely, much of the widening of the gap between historically high and low achievers is due to the accumulated differentiation of learning opportunities and interactions with the teacher. When students are given more advanced opportunities to learn, they can make more progress than might previously have been thought possible. In the quasi-experiment of Weinstein et al. (1991), students destined for the lowest track in high school were achieving at the honours level by the end of the year. These were students at risk of dropping out of school. This is a not an unfamiliar story. Within research, there are many other examples of students making much more rapid progress when the class grouping either became mixed rather than ability-based, or when streaming was eliminated from schools (e.g. Peterson 1989; Oakes 1990a; Hacker et al. 1992; Taylor 1993; Harlen and Malcolm 1997; Hatchell 1998; Hallam et al. 2004). A primary argument is that low expectations set up a train of low-level activities and learning opportunities. Students learn what they are given the opportunity to learn.
High expectation teachers expect all students to make rapid gains and, as we have seen, they achieve this by using flexible forms of grouping that enable students to choose associated learning experiences. This increases opportunity to learn and decreases the stigma of being in the bottom group. Student self-efficacy improves, as does motivation and engagement. There are no disadvantages for the high-achieving students. Another major feature of the classrooms of high expectation teachers is that they are lovely places to be in. The classes are abuzz with learning and activity. All children are treated equitably; there is no differentiation. The class climate is positive; the teacher is supportive of students, and students are supportive of each other. Working in flexible grouping and changing seating arrangements regularly mean that a positive class climate is created. Disciplinary incidents become unusual. Further, and again, linked to flexible grouping, high expectation teachers promote student learning by setting clear goals with students, monitoring their progress regularly and providing feedback that fosters further student autonomy, development, and achievement. Students are eager to come to school each day. They have a teacher who believes in every one of them. This is surely the kind of learning community we would wish for, not just in the occasional classroom but across every school and within every district. So, how can this ideal become reality?

The role of the principal

Principals are critical in the creation of a community of learners, not just among students but also among teachers. When I first began the Teacher Expectation Project, I had one teacher who wanted to use flexible grouping in her class, because she understood how powerful it could be. She found it difficult, because she did not have the support of her senior leader, who was not involved in the project. I had another teacher tell me that implementing flexible grouping was going to be difficult in her school, because of the principal’s policy that teachers had to use within-class ability grouping for all literacy and numeracy classes. Even among the original group of high expectation teachers, there was one whose principal frowned on her using flexible grouping – but who eventually ignored the practice, because she saw the enormous gains the students were making. It is very difficult for teachers to work in isolation. It is far easier when there is an understood, school-wide agenda, and everyone is working together for common goals. A high expectation school is going to be far more powerful than a high expectation classroom.

Creating a community of learners

The first step in creating a school in which all teachers have high expectations for all students is to create a collaborative community among the teachers. High-stakes testing and accountability, whereby teachers’ jobs are at risk, have resulted in environments lacking in trust and cooperation, ones in which teachers simply
put their head down and concentrate on getting the students through the examinations. In schools in which teachers and principals pull together to lift student achievement, the results can be quite remarkable. When the expectations are high, students can achieve far more than they currently do.

The first step in promoting teacher collaboration and sharing is by creating a school atmosphere in which all teachers are responsible for the learning of all students. Teachers need to feel supported as they grapple with difficult students. They need to be able to ask for help and know that it will be given in a collaborative, supportive, and non-judgemental manner. In the same way that students need to be able to make mistakes and learn from them, teachers will also need help at times. They should be learners too.

**Becoming a high expectation school**

This book has introduced the notion that being a high expectation teacher involves specific practices in three key areas: flexible grouping, class climate, and goal setting. For most teachers and principals, moving to flexible grouping is likely to be a big change, something innovative and challenging – something that everyone can work on together. By introducing a new way of working, the teachers and the principal can come together to develop high expectation classrooms. The aim would be to facilitate engagement and collaboration (if this is not already occurring), while gradually introducing change. It is important not to make too many changes too quickly, or teachers are likely to feel overwhelmed and less inclined to assimilate the new practices into their repertoire, and so concentrating, respectively, on flexible grouping, enhancing the class climate, and then goal setting is workable. Introduce one practice and ensure that it is established, before moving to the next. However, working together on a whole-school new practice can be exciting and can become an opportunity for fostering collaboration and a positive climate among staff. A further strategy for principals is to enable teachers who have strengths in any one of the three areas to take a lead in the professional development of others. This need not be someone who is part of the management team. Indeed, it is possibly better if it is not, because, if anyone on the staff can potentially lead the changes, this in itself lets teachers know that everyone’s ideas are respected and valued. Joint planning is also recommended.

**Implementing flexible grouping across the school**

Flexible grouping and opportunity to learn are inextricably linked. When students are not bound by specific learning activities, suddenly they can choose activities that interest them. Alternatively, they are working on activities with mixed-ability groupings of peers. They become more motivated, because the sense that one group is ‘better’ than another disappears. Although I consider heterogeneous grouping and challenging activities to be at the heart of providing
more equitable opportunity to learn, it is probably the high expectation teacher strategy viewed with most scepticism, particularly in countries such as New Zealand, in which within-class ability grouping is entrenched. In other countries, introducing or continuing with the notion of flexible grouping is likely to be less problematic. Nevertheless, making flexible grouping the first high expectation teacher strategy to be introduced is a means to get everyone working together to plan the new ideas and implementation. Flexible grouping is the strategy likely to result in the largest learning gains for students, and so working on introducing it first will bring early positive gains for students – visible learning (Hattie 2009).

I believe that it is more than coincidence that all of the high expectation teachers in my earlier studies used some form of flexible or heterogeneous grouping – and their students were making large achievement gains, gains that were at least partially replicated across more than forty classes when the teachers in the intervention group were taught to use flexible grouping (along with goal setting and techniques to enhance the class climate). However, moving from a culture of within-class ability grouping to one of flexible or heterogeneous grouping is likely to be more easily achieved when the move to this different form of grouping is adopted school-wide. In that way, there is support for the practice, and teachers can work together to plan activities within classroom organizational structures that will accommodate flexible rather than within-class ability grouping. As I stated earlier, it is very difficult for teachers to work in isolation to implement changes, particularly when the changes are in opposition to the school culture.

In moving to flexible grouping at a school level, I would suggest following a similar procedure to that used with the intervention teachers in the Teacher Expectation Project. It is important that teachers first understand why flexible grouping is likely to be more effective for student learning than within-class ability grouping. Hence, it would be useful to begin by having a discussion during a staff meeting about why within-class ability grouping has been used so extensively. Advantages and disadvantages can be listed. There are some clear disadvantages for students, particularly low-achieving students, in being relegated to a lower group. Their self-esteem suffers, but also, lower-ability groups tend to equate with lower-level opportunities to learn. Conversely, there do not seem to be any advantages for students – the advantages are mostly for teachers (Hornby et al. 2011). There are many articles that show the detrimental effects of ability grouping, whether within or across classes (e.g. Oakes 1985, 1990a; Kerckhoff 1986; Peterson 1989; Page 1991; Hacker et al. 1992; Hoffer 1992; Linchevski and Kutscher 1998; MacIntyre and Ireson 2002; Hallam et al. 2004; Hanushek and Woessmann 2005; Hornby et al. 2011). Further, the argument is sometimes presented that high achievers are disadvantaged by working in heterogeneous grouping. Marsh and colleagues (1987; Liem et al. 2013) provide a useful reminder here of the deleterious effects on student self-esteem for high-achievers when placed in ability groups. These articles may provide a
useful beginning point for discussion and help teachers to think more deeply about the disadvantages of within-class ability grouping. Promoting discussion around the advantages of flexible grouping may further help to advance teacher thinking about this important topic.

I have found that one primary resistance to flexible grouping is that teachers are unsure about how to organize their classrooms. Chapter 9 provides many ideas, both for organizing the classroom as well as for the kinds of activity that can be introduced in reading to facilitate student choice, and the chapter may provide some initial ideas for teachers, collaborating across the school, to begin working with flexible groups. A brainstorming session can be held with the teachers for ideas for structuring the classroom while using flexible grouping. In the Teacher Expectation Project, I found that, once teachers became familiar with working with flexible groups, they could see advantages: they could see children learning. As one of the intervention teachers stated: ‘I would without a doubt recommend this project. I have learned so much about catering to students needs and planning learning experiences that are motivating and encourage students to learn. My students now LOVE reading.’

Several teachers moved to even more heterogeneous forms of grouping by having skill-based teaching related to student goals. However, for some teachers, within-class ability grouping is what is familiar and well known, and so the move to flexible grouping may take time. I can only recommend that, as with goal setting and class climate, there are regular staff meetings focused on working with students in flexible groups. Teachers can brainstorm and plan together, share their successes and seek help if there are areas where they are struggling. If a school climate has been fostered in which teachers are able to reveal their weaknesses as well as their strengths, then moving to flexible grouping will be a supportive process.

### Working towards enhancing the class climate

Aiming for the whole staff to make changes to the class climate is a further way of fostering staff collaboration. Teachers can work together to plan changes using the ideas presented earlier, but will implement the changes in their own classes. Initial discussions in staff meetings could centre on the use of sociograms to diagrammatically represent student relationships. If all teachers conducted a sociogram and mapped out what they found, in the next week’s staff meeting, they could report the findings. Teachers could talk about what they found, what the surprises were, and how they will use the information to group students and to promote student relationships. Over time, ideas for enhancing the class climate could be shared, trialled in classes, and then reported back. The discussions among teachers, while enabling them to work on fostering student–student and teacher–student relationships, would also serve to further enhance collaboration and cooperation among teachers. I suggest spending at least one term on class climate ideas and sharing among teachers, so that, by the new term, especially
in schools where there has not been a lot of collaboration, teachers will feel more comfortable about relating to each other and, particularly, more at ease with sharing their successes and their failures.

**Promoting goal setting: taking responsibility for the learning of all students**

Unfortunately, it is difficult to avoid the ever-encroaching march of compulsory summative assessments. In my view, the use of student testing to make teachers accountable for student learning is one of the most pernicious developments in education in recent times. Recent cases of teachers in the United States coaching students, telling them the answers to tests, and falsifying student answers all point to the pressures that teachers feel. Environments such as this make it very difficult for teachers to do the job for which they were educated. Teachers learned that they were going to foster the learning and development of young people, that they would have a stake in the society of the future. They did not know that they were going to be required to produce an assembly line of sausages. Unfortunately, however, the kinds of accountability testing that currently pervade education are not likely to go away in the near future. Hence, it seems important that teachers at least work together to get the best learning possible for all students, albeit that an examination is just around the corner.

In environments of high-stakes testing, it is more important than ever that teachers work together to foster the highest achievement possible for all students. A regrettable consequence of accountability is that teachers tend to become isolated. They feel they can no longer speak to colleagues about difficulties they may be having teaching some students, for fear of being judged inadequate. So, the next step in promoting high expectation classrooms is for all staff to work together on goal setting.

If all staff are collaborating to create a high expectation school, then goal setting can potentially be made up of both school goals and classroom goals. For example, there may be a school goal related to the percentage of students who will achieve at a particular level in the next tests or examinations, and this would be reflected in each teacher setting goals for their class that would mean the school goal could be met. This would then mean that all teachers would work together to raise the achievement of all students. For this to occur, there needs to be a high level of trust and collaboration among teachers – which is why I am suggesting that goal-setting is the final aspect of the three core high expectation practices that is developed by a staff.

To implement goal setting into classrooms and schools where this has not previously occurred, particularly if this is to be part of a school-wide push, an obvious place to start is with the students’ achievement, and it is probably best to focus initially on one curriculum area. Mathematics works well, because it is linear. Collaboration could begin with teachers working alongside others teaching at similar year levels by sharing the latest work that their students have
completed, and then working together to talk about the next steps in student learning (possible goals) and how this might be developed, remembering the three pertinent questions: ‘Where am I going?’ ‘How am I going?’ and ‘Where to next?’ (Clarke et al. 2003). Using student learning as the focus will start teachers working together to plan for student improvement across classes rather than within. Being able to openly discuss students who are achieving below expectation requires professionalism and a good degree of pedagogical content knowledge, if effective support is to be provided. Sharing difficulties and working together to find solutions are powerful means of enhancing teacher knowledge and improving student achievement (Timperley and Parr 2007) but requires considerable trust. Beginning first with a few colleagues working together to help all students learn effectively, and then later moving to adopting school-wide planning, provides a graduated movement towards whole-school collaboration on student goal setting. In the same way that teachers develop trust among students in their classes, principals can lead the development of trust and collaboration among teachers.

Once teachers are comfortable sharing student work and seeking help with ideas for assisting the more difficult students to achieve their goals, a next step is to share school-wide test results. At this point, it is extremely important that teachers can work together constructively and as a community of professionals. Inevitably, there will be some classes in which the achievement of students exceeds that of others, and there are obviously ethical issues in such information being revealed. This needs to be handled sensitively. Clearly, any discrepancies across classes would not be emphasized. The focus should remain on student goal setting and on working together to help all students achieve their goals. At the school level, teachers can collaborate to set goals for students working at similar levels and then work together to plan learning experiences to assist students to meet their goals.

Therefore, as with steps to introduce flexible grouping and to enhance the class climate, I recommend that the introduction of goal setting across the school be given sufficient time to be effectively embedded. If any of the practices are to be sustained, teachers need to reach the point where they become part of normal practice. Encouraging teachers to work together in a situation in which they can be vulnerable is going to take time. It is up to the principal to judge when teachers are comfortable with setting goals together for students and their learning, with analysing school-wide assessments, and planning together to enhance student achievement, and with providing each other with focused feedback.

**Other mechanisms for supporting teachers**

A next step in the process of creating a whole-school approach to enhancing student achievement can be to introduce classroom observations. It would be hoped, by this stage, that teachers would be committed to enhancing student
achievement through implementing the practices of high expectation teachers, and that, therefore, the focus would be on students and their learning, rather than teachers feeling as though the spotlight were on them. One means of making observations less threatening, at least initially, is to enable teachers to choose who would conduct the observations. This need not be a senior colleague, although it is appreciated that, structurally, it may be difficult to arrange for those not in senior roles to be released for observations in other classes. Following observations, teachers would receive feedback on their teaching, in the same way that students receive feedback on their achievement. As with students, it is important that the feedback is focused and specific. To facilitate focused feedback, the observer and the person being observed should decide on exactly what will form the basis for the observation. The feedback would then directly relate to the teacher’s goals for improving student achievement.

Classroom observations in a school environment designed to be supportive and helpful are useful tools for providing feedback to teachers – with the aim always to enhance student learning. Teachers should view observations of their teaching as opportunities to improve their skills, rather than judgements of their abilities. Often, observations are carried out by senior management members, and so, if teachers are going to be able to make mistakes and learn (as we would hope students can do), then school-wide climate and relationships need to be strong. High levels of trust and a culture of professional learning will need to be established.

It is important that observations have a primary focus – a focus the teacher being observed views as valuable for their own learning. The teacher may designate feedback, for example, as the context for the observation. In this case, the observation would consist of a record of each instance of feedback provided by the teacher to the students during that lesson. This provides a data-based summary of what is occurring in the classroom and a framework for discussion that focuses on the evidence for what occurred in the classroom. As soon as possible after the observation, the teacher and observer should meet to discuss the lesson. Robinson (2011) outlines the key components of an open-to-learning conversation. This form of follow-up provides an excellent framework for discussion. Let’s assume that the teacher has been observed criticizing several students. The open-to-learning conversation would begin with the observer describing what was observed, without assuming that their viewpoint is accurate. For example, ‘I am not sure if this is how you see it, but I was concerned when I noticed you criticizing John, Mary, Peter, and Angela in that lesson.’ Second, the observer would describe the evidence on which this summary is based: ‘You will notice that here, here, here, and here in my transcript the feedback that you were giving to the students seemed to be quite critical.’ Third, the observer would seek the teacher’s viewpoint: ‘What do you think about what I have just said?’ Fourth, the observer needs to paraphrase the teacher’s viewpoint and check that the summary is accurate: ‘From what you have said, I understand that you believe that some students are not trying hard enough and that they are not
sufficiently engaged. Is that what you were meaning?’ Fifth, the observer should try to uncover and check the teacher’s assumptions: ‘What leads you to believe that these students are not working to capacity and not engaging sufficiently?’ Sixth, establish common ground: ‘We both see that student off-task behaviour is causing some problems in your classroom.’ Finally, the observer and teacher should work together to develop a plan, so that both parties are satisfied: ‘How would you like me or someone else in the school to help you to increase student engagement?’ Follow-up meetings and support would then work towards supporting the teacher to more effectively engage students.

As part of the Teacher Education Project, we filmed intervention teachers instructing their students for a period of 20 minutes (see Chapter 7). This was a very rich learning experience for teachers. Filming teachers provides a very compelling record of their instructional practices and interactions. Many are not aware of non-verbal and verbal habits that they have developed. Whether teachers subsequently view their own videos or share them with colleagues would be a school decision, but my experience would lead me to encourage sharing and working with a trusted colleague. Filming at reasonable intervals (perhaps two to three times a year) enables teachers to track change, especially if filming is happening each year, such that teachers can also track their own progress across time. If a school-wide approach is taken, specific features of high expectation teacher practices and behaviours could be the focus of the analysis. However, a natural caveat is that the filming of teachers must be non-threatening, and that the DVDs should be used as each teacher chooses.

**Whole-school responsibilities and wider implications**

In creating a school climate that enables teachers to learn, to collaborate, and to grow, principals do an enormous service to students. When principals develop a learning community in which teachers and students flourish, all students will have the opportunity to develop to the highest levels. The practices of high expectation teachers mean that students are not narrowly funnelled into a particular achievement trajectory, where inevitably some are winners and others are losers; all have the opportunity to succeed. For educators, this is surely the ultimate goal, for every child to thrive within our schools.

It seems today that, unfortunately, we have moved away from the former vision of education to holistically educate the citizens of tomorrow. Instead, an education system has developed that has become more and more reliant on the score on a test to sort out our citizenry and to proclaim very early on what students can be in life. It is important that, as educators, we enable all students to be successful, to live their dream, whatever that might be. Differentiation in schooling perpetuates the inequities in society in which some students, mostly ethnic minority groups and the children of the poor, do not succeed. Many students are not given the chances that would see them motivated, engaged, and thriving within our education system. It is really no wonder that many become
disillusioned and turn away from schooling. However, from an economic standpoint alone, ‘We cannot afford to waste even a single drop of academic talent’ (Weinstein 2002: 292).

The assessment culture of our schools has implications for teachers too. Teachers should be supported to be the best that they can be, rather than punished because their students did not meet some arbitrary goal. Providing a school climate for teachers that reflects the practices of high expectation teachers is likely to be more efficacious. A school climate of high expectations for teachers, a supportive school climate, clear school goals, and equitable treatment of staff is likely to result in teacher growth. Holding teachers accountable for student achievement is fraught. Besides being open to fraudulent behaviours when teachers’ livelihoods are at risk, as mentioned previously, accountability implies stability, and studies have shown that teachers are not consistently effective when the measurement is of student scores on tests. Indeed, ‘A high-quality teacher in one circumstance may not be a high-quality teacher for another’ (Darling Hammond and Prince 2007: 5). As early as the 1970s, Good and Grouws (1977) showed that only about 18 per cent of teachers produced stable results among students in both achievement and student perceptions of class climate. These were, at the two extremes, the most and the least effective teachers. In approximately 9 per cent of classrooms, students made exceptionally positive gains consistently across three years and rated the class climate highly each year. The opposite was found for the least effective teachers. However, for the remaining 82 per cent of teachers, there was variation in student results each year. Interestingly, in the classes of highly effective teachers, they did not group for mathematics, they expressed high expectations for all students, and they progressed through what was to be taught much more quickly than did the less effective teachers.

Although teachers can become more likely to increase student achievement by using the practices of high expectation teachers, there will most probably be variation in the degree to which teachers change their expectations and influence student achievement. Some teachers will adapt more quickly than others; some will be more attuned to the practices than others. But there are further, contextual factors likely to be influential as well. For example, in a recent presentation, Patrick (2013) provided instances of how a teacher’s effectiveness can vary. For example, if a teacher’s effectiveness is judged based on a mathematics lesson, they may not be viewed as positively if they were asked to teach a history lesson instead (and vice versa). Some teachers love to teach 5 year olds, but would not want their effectiveness judged with a class of 12 year olds. Other teachers feel comfortable teaching in a high socioeconomic area, but may not want to be assessed teaching in a much poorer community. Some teachers may be considered effective in teaching gifted students, but ineffective with special needs students. Are assessments of teacher effectiveness equally valid, if a teacher observed in the middle of winter is compared with someone teaching in spring, just before the summer holiday, or will all teachers...
be equally successful teaching at the beginning of the day, when compared with
teaching at the end of the day? And, considering that students can be quite
different from one year to another, are teachers going to be equally effective
with every group of students? Patrick posed all of these questions in her presenta-
tion. Context can make a difference, but rarely are these factors taken into
account in the bid to make teachers accountable for student learning. In my
opinion, increasing student learning can best be achieved by working alongside
teachers to develop potential, rather than by applying a punitive approach.
Collaboration, cooperation, and compassion work just as well with teachers as
they do with students.

### High expectation teachers and low socioeconomic areas

The literature contains many examples of teachers having low expectations in
low socioeconomic areas (e.g. Cooper et al. 1985; Solomon et al. 1996; Ennis
1998; Channouf et al. 2005; Darling Hammond and Prince 2007; Burris et al.
2008). This is not what I have found. This may be because of my definition of
high and low expectations, that is, defining expectations relative to achievement.
Often, expectations become conflated with achievement, such that high expec-
tations appear to be equated with high achievers, and low expectations with those
not doing so well. I have always considered expectations slightly differently. If
students are well below average, and a particular teacher expects the students to
be achieving at an average or even slightly below average level by the end of
the year – and puts strategies in place to help students meet those expectations
– for me, that is a high expectation. I realize that this possibly creates a ceiling
effect in classes in which most students are achieving at above-average levels.
Nevertheless, even within such classes, there will be a range. I once taught in a
very high socioeconomic area, in which the average students scored in the 75th
percentile on standardized tests; students who scored in the 50th percentile were
considered below average. Nevertheless, within that school, student achievement
varied from very much above average to below national norms. So, apart from
a class made up of only gifted students, it is unlikely that, across a whole class,
all students would be achieving at well above average levels, and, even if they
were, a high expectation teacher would still expect more, would be expecting
such students to reach even more advanced levels while in her care.

Reasonably consistently, I have found about one-quarter of teachers are high
expectation teachers, and about half that number are low expectation teachers.
However, a further consistent finding is that just as many high expectation
teachers are found in low socioeconomic areas as are found in high socio-
economic areas. Besides the acknowledged ceiling effect, I believe that this may
have to do with context. In New Zealand, where thus far all my studies have
been conducted, we have a somewhat different teaching model. To begin with,
because we are a small country, we have a national curriculum, national
monitoring, and national funding. Schools in low socioeconomic areas or with
large minority groups are funded at a higher per-student level than schools in high socioeconomic areas and those with more majority students. Schools are ranked at ten levels, called deciles, based on census data (which include socio-economic status and percentage of minority group students) and funded accordingly; the rankings are reviewed following each census, and the percentage of those ranked high, mid range, and low across the country is retained. Principals become very upset if their school is ranked higher than previously, because this means a substantial drop in government funding. On the other hand, those whose school drops are delighted! This is perhaps not the reaction that might be expected.

Further, in New Zealand primary schools at least, there is no status attached to teaching in a school in a high or low socioeconomic area. Teachers receive equal salaries, regardless of where they teach. Both these factors result in excellent teachers, who want to make a difference to student learning, choosing to teach in low socioeconomic schools. Of course, that is not to say that there are not some excellent teachers in high socioeconomic areas, but, nevertheless, a further consistent finding I have had is that more low expectation teachers can be found in high socioeconomic areas. It is in low socioeconomic areas that excellent teachers can make a substantial difference to student learning, and so that is where many choose to teach.

The major point is that we should not make assumptions about where high and low expectation teachers are located. Part of the movement towards becoming a high expectation teacher involves moving past the stereotypes related to ethnicity, culture, language, and gender and breaking down the barriers to learning, so that all students can make substantial progress. It is unfortunate that an educational system that has been used to rank and classify students is now being used for similar purposes with teachers. We can expect that, in the same way that students become demotivated when they learn that, in some classes, some students are more valued than in others, teachers, too, are likely to become disenchanted with the profession, if they are constantly appraised and sorted. Just as students look to teachers to provide an unbiased learning environment, so teachers look to be treated equitably.

Enabling classes and schools to become the high expectation environments that policy-makers espouse requires working to develop the talents of both students and teachers. Sorting students has contributed to the disparities that now exist in society. It would require more than school-wide changes to move from an achievement-based culture to one focused on progress. Policy changes that focus on constructive support rather than destructive sorting are needed, if we are to foster the development of all students and teachers. We are social beings, and, hence, learning occurs most effectively when ‘it is participatory, proactive, communal, collaborative, and given over to constructing meanings rather than receiving them’ (Bruner 1996: 84).

A major reason that expectation researchers work in the field is because they have concerns for equity and social justice. Differential expectations are not
associated with equitable learning opportunities, nor do they represent chances for students to overcome disadvantage. In many societies, education represents the best chance for students to achieve success in life. There are clear links between the level of education that students receive and their ultimate earnings and life chances (Cheeseman Day and Newburger 2002). It is a simple equation: the more education people receive, the higher their earnings are likely to be, and the less chance they will be unemployed. It should be the aim of all teachers to ensure that every inkling of talent that students possess is nurtured. For me, this begins and ends with having high expectations for all students, decreasing the inequities associated with low expectations, and showing all students that we care. The positive teacher attitudes and equitable teaching strategies of high expectation teachers lead, not only to student academic success, but also to high levels of motivation, engagement, self-efficacy, and incremental notions of intelligence – key beliefs in fostering high levels of learning and academic success among all students.
### TABLE A.1 My Class Inventory (shortened version)

<table>
<thead>
<tr>
<th></th>
<th>REMEMBER YOU ARE DESCRIBING YOUR CLASS</th>
<th>CIRCLE YOUR ANSWER</th>
<th>TEACHER USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The children enjoy their schoolwork in this class</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Children are always fighting with each other in this class</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>In this class children often race to see who can finish first</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>In this class the work is hard to do</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>In this class everybody is my friend</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Some children are not happy in this class</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Some of the children in this class are mean</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Most children in this class want their work to be better than their friend’s work</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>In this class most children can do their work without help</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Some children in this class are not my friends</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Children seem to like this class</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Many children in this class like to fight</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Some children in this class feel bad when they don’t do as well as others</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Only the smart children in this class can do their work</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>All children in this class are close friends</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Some of the children don’t like this class</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>In this class certain children always want to have their own way</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Some children in this class always try to do their work better than the others</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>In this class schoolwork is hard to do</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>All of the children in this class like one another</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>This class is fun</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Children in this class fight a lot</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>A few children in this class want to be first all the time</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Most children in this class know how to do their work</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Children in this class like each other as friends</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Note: CH = cohesiveness scale; F = friction; S = satisfaction; D = difficulty; CM = competitiveness

Source: Fraser and O’Brien (1985), with permission from the authors
### Table A.2: Student Personal Perception of Classroom Climate

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  My teacher cares about how much I learn</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2  My teacher likes to see my work</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3  My teacher likes to help me learn</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4  My teacher wants me to do my best school work</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5  My teacher really cares about me</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6  My teacher thinks it is important for her/him to be my friend</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7  My teacher likes me as much as he/she likes other students in the class</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8  My teacher cares about my feelings</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9  The kids in my class want me to do my best schoolwork</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10 The kids in my class like to help me learn</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11 The kids in this class care about how much I learn</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12 The kids in this class want me to come to class every day</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13 In this class, other students think it is important to be my friend</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14 In this class, other students like me the way I am</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15 In this class, other students care about my feelings</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16 In this class, other students really care about me</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17 I am very good at my schoolwork</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18 I am smart enough to do my schoolwork</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19 I do very well at my schoolwork</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20 I can work out the answers to schoolwork</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21 I look forward to going to school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22 I like being in school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23 School is interesting</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24 I wish I didn’t have to go to school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25 There are many things about school that I like</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26 I enjoy school activities</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note: Items 1–8 belong to the teacher support scale; items 9–16 belong to the peer support scale; items 17–20 belong to the academic competence scale; and items 21–26 belong to the satisfaction scale.*

*Source: Rowe et al. (2010), with permission of the authors*
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ability grouping, within-class 24, 43–4, 60, 82–4, 90, 91, 117, 121–5, 129–32, 132, 133, 221–2; and differential learning opportunities 125–6; and effect size on achievement 154; and student self-esteem 124–5; teacher reasons for 130–2; see also flexible grouping; setting; streaming

ability, student: and instruction 37–8, 49; teacher beliefs about 35–7; and teacher psychosocial support 41; and teacher views of intelligence 55–6, 61, 124, 126; see also ability grouping, within-class, flexible grouping, goal setting, setting, streaming

academic outcomes, student see achievement, student

accountability testing, effects of 219, 223, 227

achievement, student 12, 16, 24, 44–7, 59; and class/psychosocial climate 90, 91, 154, 156, 159, 160, 161, 162, 163, 164; and e-asTTle 202–5; and ethnicity 16, 21–3, 200; and expectation effect sizes 12, 63, 67–8; and flexible grouping 122, 128–9, 219, 221; and gender 27, 28; and goal setting 190, 191, 216; and high and low expectation teachers 69–70, 71–4; and instructional practices, differential 35, 43; and mastery and performance goals 186–7, 187–8, 188; and Pygmalion experiment 5–7, 8; school-wide 223, 224, 225; and self-fulfilling prophecy effects 12; and social class 24, 25–6, 26–7, 51; and stereotypes 29; and student self-concept 15–16, 115; and Te Kotahitanga programme 155; and teacher accountability 226, 227, 228; and teacher beliefs 52, 59, 63, 69; and Teacher Expectation Project 100–2, 111–14; and views of intelligence 61, 77

achievement gap 5, 16, 25, 63, 122, 128–9, 161, 218

ADHD 21

affective environment see class climate

assessment: for goal setting 201–2, 202–4, 223; and e-asTTle 202–4, 203; formative and summative 184, 198, 201–2, 204; standardized testing 202–4

autonomy, student 14, 15, 95, 158; and goal setting 117, 183, 204, 206, 211, 215, 219; and high and low expectation teacher differences 83, 84, 90, 97, 283, 219; and low expectation students 40; and Teacher Expectation Project 104, 110, 117; at tertiary level 79–80

Babad, E.: expectation research 42–3, 56–8, 63, 94–5, 102, 152–3

banding see streaming; see also setting

behaviour management 88–9, 131, 151, 152, 157, 159, 162, 166

beliefs see student beliefs; teacher beliefs

biased and no-bias teachers 56–58, 70; see also Babad, E.

characteristics, student see student characteristics

class climate 14–15, 41–2, 42, 60, 62–3, 84, 102, 103, 149–51, 152–63, 164, 165–6, 219; and classroom relationships 151–2; enhancing school-wide 222–3; of high and low expectation teachers 89–92; improving, practical measures for 173–181; increasing positivity in 172–3; measuring 166–72; and teacher emotional support 42–3; and Teacher Expectation Project 104, 110, 116–17, 117, 181–2; and teacher expectation research 152–3; at tertiary level 79–80; see also Pianta, R.; school climate

class environment see class climate
class-level expectations 68–70; see also high and low expectation teachers
classroom, organization 122, 160, 162; and flexible grouping 134, 134–38, 138–41
classroom, social structure of 165, 166–72
deficit theory/theorizing 50–51, 53, 69, 71
diagnostic labels 20, 21, 32
differential learning opportunities 16, 24–5, 26, 34, 43–4, 50, 82, 91, 125–32, 229; and deficit theory 50–1; and grouping 82; and outcomes for students 17, 67, 81; and teacher instructional planning 35–8; and teacher pedagogical beliefs 48–50; and teacher self-efficacy 52–5; and views of intelligence 55–6; see also ability grouping, within-class; flexible grouping; setting; streaming
effect sizes xvi–xvii, 11, 12, 41, 53, 72–3, 154
efficacy, teacher 52–5, 69, 95, 99, 115, 165–6
effort, student 19
equity 126–7, 229–30; see also diagnostic labels, ethnicity, gender, social class
gender: and teacher expectations 8, 18, 19, 20, 21, 27–9, 29, 30, 229
expectancy research, history of: beginnings 4; first teacher experiment (Pygmalion study) 5–7, 7–10; experimental studies 10–11, 12–13; meta-analyses of 11–12; naturalistic studies 12–13; self-fulfilling prophecy effect 3–4
expectations, class-level 68–70, 80, 91
grouping see ability grouping, within-class; flexible grouping; heterogeneous grouping; homogeneous grouping; setting; streaming
high and low differentiating teachers 59–63; and ability grouping 60; and class climate 62–3; and instructional practice 60–1; and role in classroom 62; and student motivation 61–2; and views of intelligence 61
high and low expectation students 68; 93; 152, 153; and academic and psychosocial outcomes 44–47; and biased and no-bias teachers 56–8; and differential instruction and opportunities 37–8, 43–44, 94–5; emotional support for 42–3, 94–5; and high and low differentiating teachers 59–63; and teacher beliefs 49, 52, 53; teacher differential actions to 38–40, 41
effect sizes xvi–xvii, 11, 12, 41, 53, 72–3, 154
efficacy, teacher 52–5, 69, 95, 99, 115, 165–6
effort, student 19
high and low expectation teachers: and class climate 89–90, 149–51, 161, 164, 173, 174, 182, 219; definition of 70, 71; differences between 90–1, 97; and equity 226, 280; and goal setting 183, 184–6, 211, 215; and grouping, flexible and ability 121–5, 132, 133, 219, 221–2; and instructional practices 85–9; pedagogical beliefs 81–5; and perceptions of student attributes 75–8; and school socioeconomic level 228; and student academic outcomes 71–4; and student psychosocial outcomes 74–5; at tertiary level 78–9; views on intelligence 124; see also Teacher Expectation Project

high expectation school: becoming a 220; and class climate 222–3; and classroom observations 224–6; and creating a community of learners 219–20; and equity 226, 229–30; and flexible grouping 220–22; and goal setting 223–4; in low socioeconomic areas 228–30; principal’s role in developing 219–26, 226–8

high expectation teacher strategies see flexible grouping; goal setting; class climate

homogeneous grouping 82, 122, 130–1, 133; see also ability grouping, within class

instruction, planning for 34–8, 82

instructional practice: differentiation of 35, 37–8, 43–4; grouping 122–5, 129, 131, 132, 133; and high and low differentiating teachers 60–63; and high and low expectation students 40, 152; and high and low expectation teachers 81–5, 85–9, 90–1, 122–5, 183, 184–6; and self-efficacy theory 52–5; and teacher beliefs 35–7, 48–51, 81–5; and views of intelligence 55–6

intelligence, fixed and incremental views of 36, 55–6, 61, 77, 124, 195–5, 199, 230

intervention studies see teacher expectation intervention studies

learning community 219, 226

learning intention 192, 214–15

low differentiating teachers see high and low differentiating teachers

low expectation teachers see high and low expectation teachers

Marsh’s Self-Description Questionnaire (SDQ-1) 74, 102

mastery goals see goal orientation, student

mixed-ability groups see flexible grouping

monitoring of progress, high and low expectation teachers 84, 139, 184, 219

motivation, student 14, 16, 102–3, 116; and class climate 90, 92, 151, 153, 154, 164; and feedback 196, 211; and goals 186–7, 188, 190, 192, 195, 204, 205; and grouping 44, 117; and high and low differentiating teachers 61, 61–2; and high and low expectation teachers 83, 150, 185, 186, 219; and teacher expectations 46, 76, 77, 78, 95; see also goal setting

My Class Inventory 170–1, 231; see also class climate

MyTeachingPartner programme 155, 162–3

Oak School experiment see Pygmalion experiment

opportunity to learn see differential learning opportunities

pedagogical beliefs see teacher beliefs

performance goals see goal orientation, student

personal best goals see goal setting

personal characteristics, teacher 52–6; see also teacher beliefs

Pianta, R.: and teacher–student relationship research 155–63; Classroom Assessment Scoring System (CLASS) 155, 162–3; MyTeachingPartner (MTP) programme 155, 162–3; positive class climate, creating 160–63; teacher qualities and student outcomes 155–60; Teaching Through Interactions (TTI) programme 161–2

planning for instruction see instruction, planning for

portfolios see goal setting

positive classroom relationships see class climate

principal: role in creating high expectation school 219–26, 226–7

prior achievement, student 16, 18–19, 35

proximal and distal goals 192–3

psychosocial climate/environment see class climate

psychosocial outcomes, student 16, 17, 44–7, 74–5, 132, 160; and Teacher Expectation Project 97, 109

Pygmalion experiment 5–7, 92; reactions to 7–10; replications of 10–11

race see ethnicity

school climate 14, 95, 222, 226, 227; see also class climate
self-concept, student 15–16, 56–7, 102, 115, 1116, 130, 188
self-efficacy, student 102, 171, 186; and goal setting 190, 191, 192, 193–5, 213, 219
self-efficacy, teacher see efficacy, teacher
self-esteem, student: and ability grouping 44, 82, 124, 131, 188, 221; and high
teaching teachers 150
self-fulfilling prophecy effects 3–4, 11, 12, 13, 16, 19, 25, 31, 43, 50, 55, 69, 70, 126
setting 43, 126, 127–8; see also streaming
SMART goals see goal setting
social class: and teacher expectations 5, 8, 12, 14–15, 16, 20–1, 23–7, 29, 30, 68, 92–3; and deficit theory 51; and streaming 126; and teacher bias 56; and Teacher Expectation Project schools 98
socioeconomic background/status see social class
socioeconomic level, school 227, 228–30; and class-level expectations 68, 69, 73; and Teacher Expectation Project; and teacher self-efficacy 53–4; see also social class
sociograms 166–70
standardized tests see assessment
stereotypes: and teacher expectations 29–30, 50
streaming 43, 126–9; see also ability grouping, within-class; setting
student achievement see achievement, student
student autonomy see autonomy, student
student beliefs 15, 16, 59, 74–5, 90, 102–3, 115–19, 116, 118, 130, 188, 190, 195
student characteristics, influence on teacher of 16, 20–21, 95, 159; age of student 31; diagnostic labels 21; effort 19–20; ethnicity 21–3; gender 27–9; language style 30; names 32; other siblings 32; personality and skills 31; physical attractiveness 30; prior achievement 18–19; social class 23–7; stereotypes 29–30; teacher–student background similarity 31
student collaboration: and high and low expectation teachers 61, 90; and teacher goal orientation 198, 199
Student Personal Perceptions of Classroom Climate (SPPCC) 170, 171–2, 232; see also class climate
summative assessment see assessment; see also e-asTTle
teacher beliefs 20, 22, 28, 35–7, 48–51, 55–6, 68, 69, 126–7, 130–1, 198–9;
and Babad, E., work of 56–8; high and low expectation 81–4, 90–1, 124, 165, 183, 184, 185; and intelligence, views of 55–6; and model of teacher expectations 13–15; and Teacher Expectation Project findings 115–18; and self-efficacy theory 52–5; and Weinstein, work of 58–63
teacher collaboration 163, 220, 222–4
teacher differential behaviour/interactions 9, 16–17, 27–8, 34, 38–44, 56, 59, 69, 70, 94, 94–5, 152–3; student perceptions of 44–6, 58
teacher efficacy see efficacy, teacher
teacher expectation intervention studies 92–6; Pygmalion experiment and replications 5–11; see also Teacher Expectation Project
teacher expectation model see teacher expectations, theoretical model of
Teacher Expectation Project 97–8; and class climate 149–51, 181–2; design of 98–9; first-year findings 109–18; and goal setting 184–6, 202–16; and grouping 121–5, 148, 221, 219, 222; qualitative data findings 117–18; student achievement gains 111–14; student achievement measures 100–2; student perceptions 114–15; student psychosocial measures 102–3; teacher and student beliefs 115–17; teacher expectation findings 109–11; teacher measures 99–100; teacher workshops 103–9
teacher expectations, theoretical model of 13–16
teacher personal characteristics see personal characteristics, teacher
teacher–student relationships 23, 63, 79, 152, 155–163, 165, 222; see also class climate
Te Kotahitanga programme 23, 155
testing see assessment
tracking see streaming; see also setting
verbal and non-verbal behaviours, teacher 15, 16, 40, 41, 44, 56–8, 152–3, 172; and Teacher Expectation Project teacher 100, 103–4, 181, 182, 226
Weinstein, R. 69, 80, 84–5, 96; and expectation intervention study 95–6; and high and low differentiating teachers 58–63; and student perceptions of teacher expectations 44–6, 153
within-class ability grouping see ability grouping, within-class