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*Te Tāhuhu o te Mātauranga*

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# CONTRACT RESEARCH

## **The Sustainability of Professional Development in Literacy**

### **Part 1: Changing and Sustaining Teachers' Expectations through Professional Development in Literacy**

Report to the Ministry of Education

**RESEARCH DIVISION**

**Wāhanga Mahi Rangahau**

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# **THE SUSTAINABILITY OF PROFESSIONAL DEVELOPMENT IN LITERACY**

## **PART ONE**

### **Changing and Sustaining Teachers' Expectations Through Professional Development in Literacy**

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Part One of a report prepared for the participating schools and the Ministry of Education  
on the Sustainability of Professional Development in Literacy



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Tena koutou, tena koutou  
Tena koutou katoa**

**Talofa lava, Malo e lelei,  
Taloha ni, Kia orana,  
Fakalofa lahi atu**

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Finally, we would like to acknowledge the work of the University-based research team including Patrick Lam, who has managed this project and made sure the data were collected and entered in ways that allowed analysis, and Irene Fung and Earl Irving, who assisted with the literature searches for this report.



## EXECUTIVE SUMMARY

This report forms Part One of the report to the participating schools and the Ministry of Education on the sustainability of professional development in literacy. It examines the ways in which teachers' expectations of student achievement changed over the course of six months' professional development in literacy, and how well those changed expectations were sustained over a period of 18 months. It sought to answer the question, "To what extent did the professional development impact on the participants' expectations of students' achievement and their own self-efficacy in impacting on that achievement?"

High expectations of student achievement are a well-documented correlate of effective schools while entrenched low expectations of achievement for children from low-income communities have been identified as a significant barrier to shifting that achievement. Teacher expectations are usually defined as "... inferences that teachers make about the future behavior or academic achievement of their students, based on what they know about these students now" (Good & Brophy, 1997, p. 79). These beliefs about students' potential become the teachers' goals for the students and shape their daily classroom decisions and actions, including what they believe to be appropriate curricula and instructional practices. When expectations are low, these decisions are likely to include non-challenging and non-academic curricula and instructional methods with teachers teaching less to students instead of more (Delpit, 1995). Conversely when expectations are high, teachers are more likely to assume that they can and will provide whatever programmes and resources are required to meet the needs for the students to succeed (Reyes, Scribner, & Scribner, 1999).

The composition of the beliefs that make up teacher expectations is not well established but it appears that expectations may be influenced by teachers' sense of personal efficacy, that is, a belief that they are able to bring about desired outcomes of student engagement and learning (Tschannen-Moran & Hoy, 2001). Teachers with a high sense of efficacy not only believe that their students are capable of mastering curricula objectives, but also that they are capable of motivating and instructing students successfully.

Given the veracity of the findings on the impact of teachers' expectations and sense of self-efficacy on student achievement, it is surprising how little research has been



conducted on how these attributes might be changed. In this report, we propose that three elements must be evident in the professional development if change is to occur. These include:

- Presentation of information that is discrepant with existing beliefs about children's capabilities so that teachers set high-order goals and expectations
- Challenge to teachers' beliefs that teaching has limited impact on children's learning so that teachers focus on the teaching / learning relationship
- The acquisition of new domain knowledge that includes both challenging teachers' theories of the task so that they attend to and monitor cues appropriate to a sophisticated understanding of the task, and presenting new teaching skills so they are better able to help students reach new goals and expectations.

## **The Professional Development**

The professional development consisted of 10 three-hour sessions over two school terms and was undertaken by the second author. In the sessions, all three components were included in various ways. For a more comprehensive description of the professional development, we refer readers to the recently released report by Phillips, McNaughton and MacDonald (2001).

## **Research Method**

Thirty-one teachers and literacy leaders who participated in the professional development in 2000 were asked to fill in a pre- and post-course questionnaire designed to assess expectations, self-efficacy and knowledge of literacy achievement. Twenty-six of these people agreed to follow-up interviews in their schools. The questions were designed to assess the following:

- changes in expectations about the progress children can make in their first year of schooling;
- changes in teachers' knowledge of what children know about literacy when they arrive at school;
- teachers feelings of self-efficacy in terms of the districts' schools and their own influence on student achievement;
- changes in teaching priorities likely to be influenced by changes in expectations.



## Results

The teachers' self-assessments indicated that they had changed their expectations substantially about the progress children can make at school and what children know when they arrive at school. Interview responses indicated that many believed that they had previously lowered expectations to accommodate family circumstances that they had believed educationally disadvantaged the children. The teachers from one school, however, who had decided not to adopt fully the approach to teaching literacy presented in the professional development, showed little change in their expectations.

Our measure of beliefs about the causes of low achievement in Mangere and Otara showed a significant shift between the pre-course and post-course questionnaire. Prior to the professional development, over 80% of the nominated reasons were external to the school. After the course, over 60% of the nominated reasons related to school-based factors, such as teaching methods. As one teacher wrote in her post-course questionnaire, "We don't know how to teach them effectively." The responses of the teachers in the school that decided not to adopt the approach to literacy trended in the opposite direction. The teachers gave more externally based reasons in the post-questionnaire than in the pre-questionnaire.

The self-efficacy measure did not show the same degree of shift as the school efficacy measure above. When asked about the relative influence of economic, parents / whanau and teachers on children's achievement, measures of the influence of parents decreased significantly from pre-course to post-course, but measures of the teachers' influence stayed the same. Teachers were equivocal in their interview comments about the relative influence of parents and teachers but showed a change in thinking that was not evident in the quantitative measures. For example, one teacher told us that she still believed that the children's background had a great deal of influence but she no longer let that rule her thinking.

The teachers' responses about their literacy priorities when children first began school showed a significant shift. Prior to the course, half of the teachers' literacy priorities reflected their low expectations of the students in that they focused on aspects not directly related to the acquisition of literacy, such as fostering a desire to learn and gain confidence. After the course, all teachers nominated the acquisition of literacy strategies as their first priority.



## Conclusion

The professional development provided a set of conditions that led to most of the teachers changing their expectations about how well children from low-income communities could achieve and sustaining those expectations over the following year. Changes in expectations were achieved through the complex interplay of new domain knowledge in the form of redefining the reading task and how to teach it, changes in the children's achievement and their feelings of self-efficacy. However, the lack of change in expectations by the teachers in the school that decided not to adopt the approach to literacy serves as a salient reminder that the same professional development may not have the same impact on all participants. It was not that these teachers failed to care about the children or rejected the new teaching approach lightly. They sincerely believe that their own approach was superior and demonstrated a willingness to learn and change by incorporating some aspects of the professional development into their existing programme. The assumptions underlying their programme choice, however, were based on a profile of expectations others held prior to the professional development.



## INTRODUCTION

*We actually never tested the text levels, whether the children were moving in the first year of school – it was a readiness thing because we felt that the children were still at that emergent stage. Maybe it [the professional development] made us lift our expectations of what children can do. It's made us look at what we're doing ourselves. The professional development has given the staff the skills to do that.*

Literacy Leader

Part One of this report on sustainability of professional development focuses on changes in teacher expectations of student achievement as a central issue in the sustainability of professional development. The research on which it is based examined the ways in which a professional development course in early literacy acquisition changed teachers' expectations of student achievement in eight Decile 1 schools over the period of the course. Changing these expectations is central to enhancing student achievement, particularly in schools located in low-income communities (Reyes et al., 1999; Reynolds, Teddlie, Creemers, Scheerens, & Townsend, 2000).

Part Two is reported separately and examines the school-based factors that were associated with sustainability because it is these, rather than professional development courses per se, that exert the major influence on teacher implementation of new practices and changes in student achievement (Cohen & Ball, 1999; Goodlad, 1984). This study involved finding out how seven schools followed up the professional development course over a period of 18 months and the processes that influenced sustainability of the gains in student achievement.

## Background

The professional development in early literacy teaching was part of the initiative to strengthen education in Mangere and Otara (SEMO) that was launched in these two South Auckland suburbs in 1997. This initiative has been extensively described in



Ministry reports (e.g. Annan, 1999) and research evaluations (Robinson, Timperley, & Bullard, 2000; Timperley, Robinson, & Bullard, 1999; Timperley & Lam, 2002) and readers are referred to these reports for further details. The professional development in early literacy acquisition was part of the “Early Childhood Primary Link” aspect of SEMO and was developed and delivered by the second author. Readers interested in the theoretical underpinnings of the professional development and the resulting changes in student achievement are referred to Phillips, McNaughton and MacDonald (2001). The schools that took part in this research all had teachers participating in professional development during 2000.

### **Teacher Expectations and Achievement**

It is difficult to find a large-scale study in the school effectiveness literature that does not refer to the relationship between teacher expectations and student achievement. High expectations are now accepted correlates of effective schooling (Reynolds & Teddlie, 2000). For example, Reyes, Scribner & Scribner (1999) reported in a study of effective Hispanic schools that there was a “... belief among administrators and teachers that students who traditionally had been labeled as disadvantaged were just as bright and capable as those who are more advantaged. These schools explicitly denied (and, more important, internally rejected) the cultural deprivation argument prevalent in much of the literature on effective schools.” (p. 27)

On the flip side of the expectations coin, entrenched low expectations of achievement for children from low-income communities have been identified as a significant barrier to shifting achievement. Faced with the reality of low achievement in many low socio-economic schools and what Delpit (1995) describes as the constant reinforcement by the “... research that links failure and socio-economic status, failure and cultural differences .... It is hard to believe that these children can possibly be successful after their teachers have been so thoroughly exposed to so much negative indoctrination. When teachers receive that kind of education, there is a tendency to assume deficits in students rather than to locate and teach to strengths.” (p. 172)

Teacher expectations are usually defined as “... inferences that teachers make about the future behavior or academic achievement of their students, based on what they know about these students now” (Good & Brophy, 1997, p. 79). Their impact was first documented in Rosenthal and Jacobson’s (1968) work on self-fulfilling prophecies when



some students labeled as “bloomers” achieved better scores on tests of general ability than their peers. This and subsequent research (e.g. Brookover & Lezotte, 1979; Cooper & Good, 1983; Lezotte, 1990) have demonstrated links between expectations of achievement to that achievement sufficiently often to highlight their crucial role.

Given the extensive documentation on the importance of teacher expectations, it is surprising how little attention has been given to the ways in which they might be changed and how that change might be sustained. Part of the reason for this omission, no doubt, is due to the historical disconnection between the school effectiveness and school improvement literatures. School effectiveness research has involved studying effective rather than ineffective schools with the implicit assumption that adoption of the characteristics of the former by the latter will realise the goals of improvement. As a result, we know little of how to get from one to the other (Reynolds et al., 2000). Cibulka and Nakayama (2000) have gone some way towards making these links by explaining that expectations of high performance is not a steady state but rather a moving target of ever-increasing standards of performance. School professionals need to readjust high and achievable learning goals for their students, so they must be committed to a never-ending process of evaluation and an openness to change.

In addition to this problem of disconnection between the two research traditions, changing expectations is not an easy task, with exhortations about its importance likely to have little effect. As Delpit (1995) describes, “We say that we believe that all children can learn, but few of us really believe it” (p. 172). Unfortunately, our beliefs have a significant impact on our behaviour (Good & Brophy, 1997).

One study undertaken by Weinstein et al. (1991) reported positive findings from a comprehensive university-based intervention programme designed to raise teacher expectations of student achievement. An extensive and collaborative programme focusing on ways in which teachers inadvertently maintain low expectations, the special motivational problems of low-achieving students, and how these problems could be prevented had positive effects. The programme participants were able to implement new procedures designed to increase communication of positive expectations to low achievers and the project teachers’ expectations for students became more positive.

While efforts such as these are to be applauded, specialist university-based courses reach only the few. Changing expectations needs to become an integral part of all professional



development aiming to improve the underachievement of students from low-income areas if we are to have a wider impact on teachers' expectations for the achievement of these students. In order to do this, however, we need to understand more about the composition of these expectations and how they might influence teachers' classroom actions.

## **The Psychology of Teacher Expectations**

It is generally accepted that teacher expectations are made up of beliefs, actions and outcomes (Good & Brophy, 1997). Teachers' beliefs about students' potential academic achievement become their goals for the students and shape their daily classroom decisions and actions, including what they believe to be appropriate curricula and instructional practices. For example, planning is guided by beliefs about what students need and how they will respond if treated in particular ways, with decisions determined by how best to accomplish the expected goals for the students (Good & Brophy, 1997, p.79). When expectations are low, these decisions are likely to include non-challenging and non-academic curricula and instructional methods with teachers teaching less to the students instead of more (Delpit, 1995). Conversely, when expectations are high, teachers are more likely to assume that they can and will provide whatever programmes and resources are required to meet the needs of the students to succeed (Reyes et al., 1999).

The composition of the beliefs that make up teacher expectations is not well established but it appears that expectations may be influenced by teachers' sense of personal efficacy, that is, a belief they are able to bring about desired outcomes of student engagement and learning (Tschannen-Moran & Hoy, 2001). Teachers with a high sense of efficacy not only believe that their students are capable of mastering curricula objectives, but also that they are capable of motivating and instructing students successfully. On the other hand, teachers with a low sense of efficacy believe either that no teachers could have important effects because of the students' backgrounds, or that some teachers could have such effects but they personally could not (Ashton & Webb, 1986). The relationship between teacher efficacy and expectations has been established primarily through the similarity of the effects of each. Like expectations, teachers' sense of efficacy has been shown to be related to teachers' goals for students, the effort they invest in teaching, their behaviour in the classroom and student achievement outcomes (Tschannen-Moran & Hoy, 2001). Similarly, while considerable attention has been focused on measuring teacher efficacy and its effects on student learning, little has been focused on how teachers' feelings of self-efficacy might be changed.



To better understand how the expectations or goals teachers have for students might influence their actions in the classroom, we have turned to the cognitive psychology of self-regulated learning. In using this literature, we are assuming that we would want professional development to assist teachers to engage in such learning in the sense that "... self-regulated learners judge performance relative to goals, generate internal feedback about amounts and rates of progress towards goals, and adjust further action based on that feedback" (Butler & Winne, 1995, p. 9). In the teaching context, this would mean holding high expectations of the students, monitoring the students' progress towards realising those expectations and adjusting teaching methods when existing actions do not result in the desired outcomes.

Goals are central to self-regulated learning because they drive what is attended to and determine the monitoring and feedback that are the catalysts for self-regulation. The feedback, in turn, regulates subsequent engagement, decisions and actions. These processes together provide information about goal achievement and the teachers' ongoing engagement with the task of improving student achievement in line with the goals. When low expectations of students are held and the students achieve accordingly, there is little incentive for the teachers to change either their goals for their students or their strategies to achieve those goals.

On the other hand, high expectations mean that goals are less likely to be reached. Carver & Scheier (1990) identify the alternative responses under these circumstances – goals are either modified or new ones set, or the strategies designed to achieve them are re-examined. The choices teachers make in response to situations where students fail to reach the goals is crucial to the ways in which teachers' expectations may impact on their actions. In a large federal study in the United States about teachers learning how to use "teaching for understanding" pedagogy, McLaughlin and Talbert (1993) found that faculty polarised into three distinct responses. One group of teachers did not adapt, they taught as they had always taught and blamed the students for not learning, and a second group adapted negatively by lowering standards or, in terms of self-regulated learning, the expected goals. Both of these teacher groups felt that what was wrong with schools today lay in student deficiencies. But in the third group teachers diagnosed the problem of poor performance in the lack of fit between traditional classrooms and contemporary students. These teachers found new ways to teach high standards and engage students.



Goals and expectations are also important in this learning process for teachers in that they provide the cues to which the teacher as a learner is likely to respond. If a cue is not registered, then it has zero value and will not affect self-regulation (Butler & Winne, 1995). Thus, if achievement expectations are low or unclear, then student achievement is unlikely to provide the cues for teachers' self-regulated learning. Alternative cues with their associated goals, such as improving student behaviour or increasing self-esteem, are likely to be substituted. Conversely, if expectations are high and clearly defined, they are more likely to impact on the cues to which the teacher attends when monitoring goal attainment.

Goals are also strongly influenced by the teachers' theory of the task, which is often determined by differential expectations. It is well documented that high-achieving students are frequently given more conceptually demanding tasks than their lower-achieving counterparts for whom mastery is often sought for lower-level skills that are retaught and reviewed (Carver & Scheier, 1990; Graham, MacArthur, & Swartz, 1995; Knudson, 1992). The goals and the cues to which the teacher attends for these different groups of students are frequently, therefore, very different. In reading, for example, high-achieving students may be expected to comprehend text, while their lower-achieving counterparts may be considered successful if they recognise letters and words, and so may fail to understand that these isolated elements are supposed to combine into something meaningful.

A cautionary note needs to be sounded about high expectations, because they may be confused with high perceptions of students' current levels of achievement. A large-scale Louisiana School Effectiveness Study (Teddlie & Stringfield, 1993) found that unrealistically high perceptions of student achievement was a characteristic of teachers in ineffective schools. Knowledge of achievement was different from high expectations. The former needs to be accurate with the latter high.

### **Creating Change through Professional Development**

The above brief discussion on expectations, efficacy and self-regulated learning provides some basis on which to propose how expectations might be changed and sustained in the professional development context. Although beliefs are central to teachers' expectations because they shape the actions that result in particular outcomes for students, it does not follow that beliefs must change first. As Delpit (1995) noted, although we may say all



children can learn, few actually believe it. Work by both schema theorists (Reynolds, Sinatra, & Jetton, 1996; Schutzwohl, 1998) and cognitive psychologists investigating self-regulated learning (Chinn & Brewer, 1993) indicate that one of the most powerful ways to change beliefs is to present the learner with information that is discrepant with those beliefs. In the case of low achievement expectations, the most relevant discrepant information would be higher than expected student achievement. To accomplish this improved achievement, however, different actions would be required of the teacher. On the other hand, the teachers may not be motivated to modify their actions, unless they believe that the children can learn more than previously assumed. We propose, therefore, that the change process is likely to be an iterative rather than a sequential one, where changes in beliefs, actions or outcomes are both shaped by, and build on, each other.

Although the presentation of discrepant information may be necessary to change beliefs or knowledge, there is no guarantee that the presentation of such information will ensure that alternative knowledge will replace the existing knowledge because the interpretation of new information is filtered through existing beliefs. Chinn & Brewer (1993) have identified that while discrepant information may result in changes to current understandings, learners may well ignore or reject the discrepant information, judge it as irrelevant, hold it separate from pre-existing beliefs so that it is not influenced by the information, or reinterpret the information so it conforms to the pre-existing belief.

To prevent these less desirable alternatives, the discrepant information must be sufficiently salient to prevent it being ignored or incorporated into the structure of existing beliefs. In the professional development context, improved student achievement, for example, would need to both be demonstrated and be made sufficiently salient for those teachers with low expectations that it challenged existing beliefs and resulted in changed practices of setting higher-order goals and expectations.

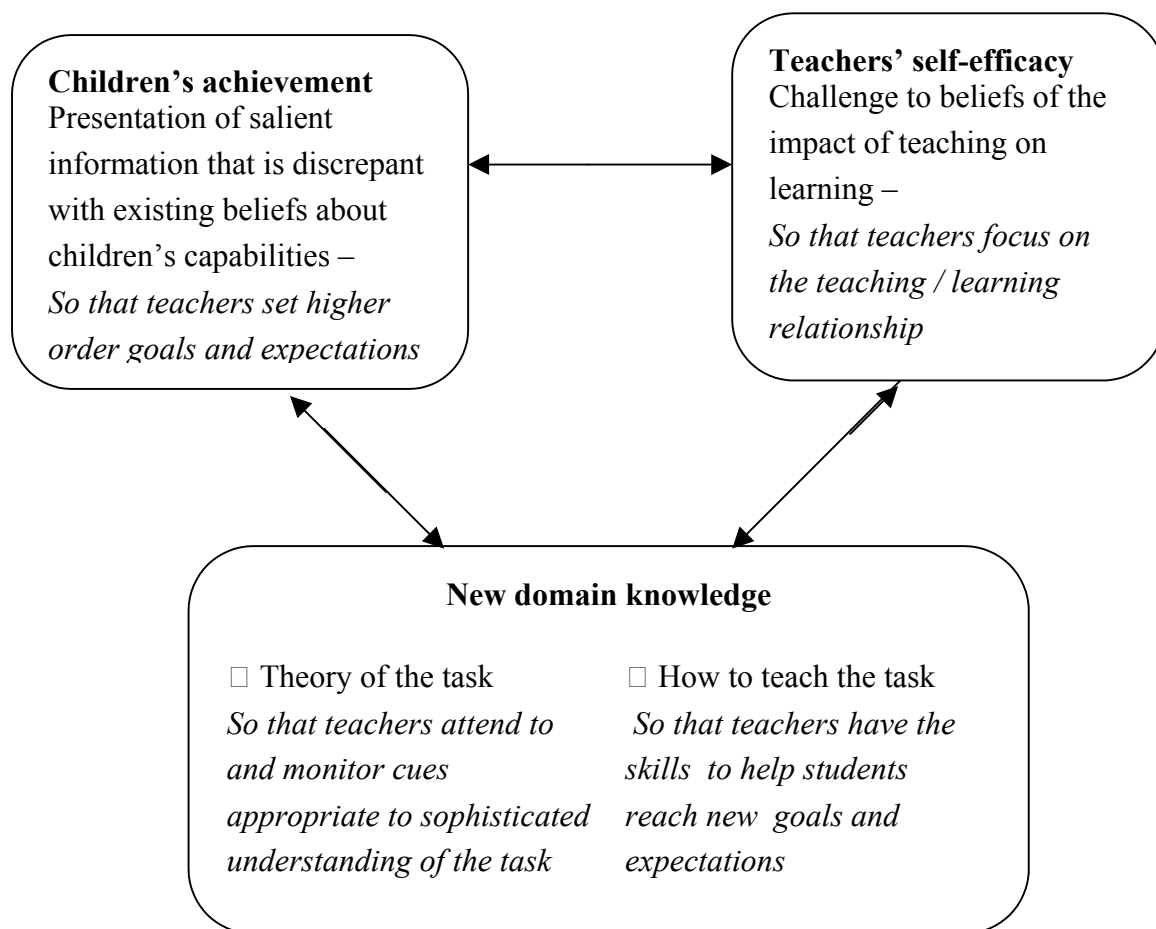
In Figure 1.1 we propose that professional development needs to address three sets of beliefs or understandings and their associated practices, if changed expectations are to impact on student achievement. The first, student achievement, is discussed above. Similar principles apply to the second, the teacher's sense of self-efficacy. If teachers believe that there is little they can do to improve student achievement, then there is little incentive to engage in alternative instructional practices. For this belief to change, then the links between what teachers do and what students learn would need to be demonstrated in ways that are both salient and meaningful for these teachers. With a



greater sense of efficacy, the teachers would be more likely to attend to the impact their practice was having on students and to take greater responsibility for the outcomes.

**Figure 1.1**

**Proposed Components of Professional Development Needed to Change Expectations and Student Achievement**



The third aspect relates to the provision of new domain knowledge that is the typical focus of professional development. This knowledge is usually related to the nature of the task (such as what is literacy or how children learn to read) and / or how to teach it more effectively. Understanding the nature of tasks we are asking children to learn shapes the goals, the cues to which the teachers attend and the monitoring of their own behaviour in achieving the goal, that is, their self-regulating activities. If the task is defined in lower-level terms for children for whom teachers have low expectations, they do not have the



opportunity to achieve higher level tasks (Graham et al., 1995; Knudson, 1992), so the professional development needs to address the appropriateness of these types of tasks if children are to achieve well. Butler and Winne (1995) report that when domain knowledge was incorrect and entrenched, participants were erratic in applying productive self-regulating learning strategies. As content knowledge increased in depth and richness, the acquisition, use and transfer of strategies that supported self-regulated learning were enhanced (Butler & Winne, 1995, p. 14).

In addition to learning more about the nature of the task, teachers also need new domain knowledge in how to teach, more commonly known as pedagogical content knowledge, if the children's achievement is to improve and the changed expectations sustained. For without improved pedagogical knowledge, teachers would not have the strategies to help students improve their learning. In the absence of improved strategies, failure to reach new expectations is more likely to result in goal revision and lowering of expectations than the re-examination of strategies to reach the goals.

In presenting Figure 1.1, we have used double-headed arrows between each of the three boxes. In doing so, we wish to convey the idea that these three components interact with and build on one another, rather than develop in a sequential or linear manner.

## **Current Study**

This study sought to answer the research question, "To what extent did the professional development impact on the participants' expectations of students' achievement and their own self-efficacy in impacting on that achievement?" To answer this question, we examined:

- how the professional development in literacy impacted on the participants' beliefs about students in terms of expectations of achievement and the knowledge they brought to school;
- their beliefs in their own self-efficacy in bringing about change;
- the actions they took to enhance literacy learning and reported outcomes for student achievement.

Interviews a year after the professional development was completed established the extent to which some of these beliefs were sustained.



## **The Professional Development**

The professional development consisted of 10 three-hour sessions over two terms and was undertaken by the second author. The three components we have identified in Figure 1.1 (children's achievement, teachers' self-efficacy and new domain knowledge) were interwoven throughout the professional development in line with our proposition that changing expectations is an iterative rather than linear process. In this section we give a brief account of some of the activities in the professional development related to changing the teachers' expectations as summarised in Figure 1.1.

### **Children's Achievement and Teachers' Self-Efficacy**

Children's achievement was always to the fore in the professional development. The stated aim of the professional development was to increase the number of children who were reading at their expected level for their age at 6:00 years to a target of 80%. Preliminary research results from a pilot study were presented to show that children from low socio-economic areas could reach these levels given a particular approach to reading and a video shown of a child's accelerated reading progress over five teaching sessions.

Achievement was made salient in a number of different ways. The first was to begin the professional development with the presentation of each school's own Observation Survey (Clay, 1993) results in the form of Box and Whisker graphs. This form of presentation highlighted how the schools' results compared with the national average for achievement.<sup>1</sup> While all schools had these results recorded individually for each student, only one school had aggregated them by class or year level. Teachers typically used these results for programme adjustments for individual students or not at all.

Seven scores were presented: letter identification, hearing and recording sounds in words, concepts about print, two forms of reading word vocabulary, writing vocabulary and text levels. Typically, scores were at or above national averages for the first three tests and well below national averages for the last three. Teachers were asked what these scores meant to them to ensure they understood the meaning and the discrepancies between scores.

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<sup>1</sup> There are no national levels as such, this statement is based on benchmarks for reading used in another research project:

*In general, average progress 6.0 year olds are expected to be at levels 9-14 (see Reading Recovery, 1993) or Blue to Orange on the Ready to Read colour wheel. (Picking up the Pace, 2002, p112).*



The next task was designed to both keep achievement salient and to assist teachers to understand the connection between what they taught and what children learned by presenting the idea that children were successful in the areas they were taught. Teachers were then asked to identify the characteristics of their programmes that were likely to lead to the achievement profiles of their school. Discussion of child characteristics or their backgrounds were not accepted. Teachers had little difficulty in linking the children's success on letter identification, hearing and recording sounds in words, and concepts about print and the emphasis of their programmes because the children scored relatively well on these components.

Other achievement data-related activities were introduced throughout the course. For example, the teachers were shown how to assess, record and monitor the children's progress in text reading and were asked to bring their results to the professional development sessions for discussion. Small exercises were also set, involving test-teach-re-test sequences in writing vocabulary once the teachers had been given new understandings of how they could teach writing differently.

### **New Domain Knowledge**

The new domain knowledge comprised challenging teachers' conception of the task in terms of what is literacy, and their ideas about how to teach it. Much of the challenge of the conception of the task was related to changing the teachers' ideas that becoming literate was dependent on, or equivalent to, recognising letters and words rather than deriving meaning from text. Their children's achievement profiles showed them that success on letters did not translate to success on text reading. An exercise involving an unfamiliar script demonstrated to the teachers that they could derive meaning from text without knowing the individual letters.

Their new domain knowledge of how to teach children to become literate was closely related to the revised conception of the task as success in text reading. Most of the professional development was focused on the techniques to achieve this outcome and is beyond the scope of this report. We will, however, present an example to illustrate one aspect of this part of the course. Children from cultural and language backgrounds different from those of book authors are often confused by the expressions and construction of the stories they are asked to read. If they are to be successful readers, however, the child needs to understand and share the author's parameters of meaning. Bridging the meaning gap becomes the central task for teachers. Traditionally, teachers



have typically focused on breaking up the text so children can read the words, then testing their comprehension. However, if the teachers are to bridge the gap to ensure the children's success, then they need to provide the framework to help the child go from the text to constructing meaning. The teachers were encouraged to do this by introducing stories with a brief summary of the theme and the content of each page.

Assisting children to become successful text readers also required new analytical skills in terms of understanding what children brought to school. If it is text reading that is the task, rather than recognising letters, then the teacher needs to become an astute observer of what children know about text. An example of this may be a new-entrant child who picks up a book the correct way, or says nothing when the page is blank. Both these actions demonstrate that the child already knows a great deal about text.

## **Research Method**

Teachers and their literacy leaders who participated in the professional development were asked to fill in a pre- and post-course questionnaire designed to assess expectations, self-efficacy and knowledge of literacy achievement. The teachers were interviewed about their questionnaire responses within three months of course completion and about sustainability of their beliefs a year later.

### **Participants**

The schools of those participating in the research were located in the South Auckland suburbs of Mangere and Otara and were ranked as Decile 1. The participants were 31 literacy leaders and teachers from eight schools who took part in the professional development during 2000 and completed both pre- and post-course questionnaires. All taught Year 0 or Year 1 students, or in the case of the literacy leaders, were responsible for these children's reading programmes. Item responses were included only if the relevant questions were answered in both the pre- and post-course questionnaire. Twenty-six of the teachers agreed to participate in the follow-up interviews. All were interviewed twice, the first time occurred approximately three months after the completion of the professional development and again a year later.

The participating teachers all taught Year 0 and / or Year 1 students. A profile of the participants in terms of their years of experience and training is presented in Table 1.1.



**Table 1.1****Profile of Participating Literacy Leaders and their Teachers****(n=31)**

Profile of teachers	Number of teachers
<hr/>	
Years of experience	
Less than 1	4
1–2 years	3
3–5 years	3
6–10 years	2
10 years +	17
Unspecified	2
<hr/>	
Country trained	
New Zealand	28
Overseas	3
<hr/>	
Reading recovery training	
Yes	11
No	20
<hr/>	

**Student Achievement**

A recent report by Phillips et al. (2001) documented the significant gains in student achievement that were evident in a random sample of students taught by the participating teachers. These gains were particularly evident for text reading, writing vocabulary, and the BURT word list (Gilmore, Croft, & Reid, 1981), which were the areas where the children had experienced the least success prior to the professional development. These data were accepted as evidence that the professional development was successful in raising student achievement.



## Questionnaires and interviews

The items of the questionnaire were designed to assess the following:

- changes in expectations about the progress children can make in their first year of schooling;
- changes in teachers' knowledge of what children know about literacy when they arrive at school;
- teachers' feelings of self-efficacy in terms of the districts' schools and their own influence on student achievement;
- changes in teaching priorities likely to be influenced by changes in expectations.

The specific questionnaire items and questions relevant to each of these aspects are specified below.

**Changed Expectations about the Progress Children can make at School.** In the questionnaire, this question was the most direct measure related to expectations and was asked in the post-course questionnaire only. The question read:

*Have your expectations changed about the progress children can make in their first year of school.*

A 1–10 rating scale was used with 1 representing “Not changed” and 10 representing “Changed a lot”.

A follow-up question asked:

*If your expectations have changed, how have they changed?*

Options were given for teachers to indicate if their expectations had increased or decreased. The ratings were averaged and standard deviations calculated.

In the first follow-up interview teachers were asked if they wished to make any further comment about their ratings or to elaborate on the basis on which they were made. A year after completion of the course, sustainability of expectations was assessed by asking participants:

*Realistically, what do you hope the children in your class will achieve in reading after one year at school?*

This question was followed by a second asking,

*What percentage of your children are on track to achieve this?*



**Changed understanding of what children know about reading when they arrive at school.** This question was also asked in the post-course questionnaire only and was included because changes in expectations and achievement for children from low-decile communities requires teachers to better understand the knowledge children bring to school. This question read:

*Please rate how your understanding has changed of what children know about reading when they arrive at school.*

A 1–10 scale was used with 1 representing “Not changed” and 10 representing “Changed a lot”.

A follow-up question asked:

*If your understanding has changed, how has it changed?*

Options were given for teachers to indicate if they thought that the children knew more or less than they thought. Ratings were averaged and standard deviations calculated.

**Feelings of School and Self-efficacy.** Two efficacy measures were used in both the pre- and post-course questionnaire. The first asked about general beliefs concerning the causes of low achievement in Mangere and Otara with the second asking for beliefs about the teacher’s own influence. The first question read:

*Many children in the Mangere / Otara area are falling below the national average in literacy (i.e. reading continuous text) by the time they are 6 years old. Why do you believe this is the case? Reason 1 ... Reason 2 ... Reason 3 ... (one line was provided for each reason).*

Each reason was coded according to whether the identified reasons were internal or external to the school. This question was analysed by comparing the frequency of coding categories in the pre- and post-course questionnaire. A chi-square (using the McNemar variation) was undertaken to determine the significance of the differences between the pre-course and post-course responses.

The second question related to efficacy read:

*In the following, you are asked to express your beliefs about how much influence various factors have over the literacy achievement levels of **the children in your class**. Imagine that the horizontal line below represents your beliefs about the influence of economic factors (e.g. housing, income level) on the literacy levels of your children.*



*Influence of economic factors* \_\_\_\_\_

- a) *Relative to the “Influence of economic factors” line, draw a line whose length represents the amount of influence you think parents / whanau have over the literacy levels of children in your class.*

*Influence of economic factors* \_\_\_\_\_

*Influence of parents / whanau*

*(draw a line in space above)*

- b) *Relative to the “influence of economic factors” line, draw a line whose length represents the amount of influence you think you have as teacher over the literacy levels of children in your class.*

*Influence of economic factors* \_\_\_\_\_

*Influence of teacher (you):*

*(draw a line in space above)*

This question was analysed by comparing the length of the lines for parents / whanau and teachers with the length of the economic line for the pre- and post-course questionnaires. T-tests were conducted to assess the significance of the differences in the lengths of the lines.

The sustainability of any change in self-efficacy was assessed by asking teachers a year after finishing the professional development, “*What do you think needs to happen to raise the achievement levels for the children you teach?*” Answers were coded according to whether the teachers focused on teaching methods or other factors.

**Literacy Priorities Reflecting Expectations.** Expectations in themselves are unlikely to impact on achievement unless teaching methods also change. A key practice is what literacy activities the teachers prioritised when the children began school. If high expectations were held, then teachers would be more likely to prioritise teaching literacy strategies. On the other hand, if expectations for achievement were low, there would be little reason to begin literacy instruction immediately. To find out if teachers shifted their priorities over the professional development, this question read:



*What are your teaching / learning priorities for literacy for new-entrant children during the first 3 months of schooling? Priority 1 ..... Priority 2 ..... Priority 3 ..... (one line was provided for each priority)*

Priorities were coded according to whether the listed strategy focused on reading and writing or other aspects of literacy, such as enjoyment of reading. This question was analysed by comparing the frequency of coding categories in the pre- and post-course questionnaires. A chi-square (McNemar variation) was undertaken to determine the significance of the pre-course / post-course responses.

## Results

### **Changed Expectations about the Progress Children can make in School**

The ratings in Table 1.2 indicate that teachers, in all the schools, had changed their expectations about the progress students could make in their first year of school.

**Table 1.2**

### **Means and Standard Deviations of Self-Rated Changes in Beliefs about the Progress Children can Make in their First Year at School and What Children Know When They Begin School**

	<u>M</u>	<u>SD</u>
What progress children can make	7.6	2.28
What children know when begin school	6.2	2.52

Note: A 1–10 scale was used with 1 representing “Not changed” and 10 representing “Changed a lot”.

All those who indicated changes in their expectations indicated that their expectations had increased. The follow-up interview responses indicated that changed expectations arose primarily from the teachers’ awareness of the children’s improved achievement. One literacy leader confirmed previously low expectations and the need to change by



saying, *“To me that’s one of the aims that South Auckland schools really need to do ... we have to raise those expectations but we have lowered them to accommodate things, you know, lack of experience, no books in their homes etc.”* She then went on to talk about the videos presented in the professional development that helped to change expectations: *We looked at some videos and they were quite powerful. All of them [the staff] came back and said, ‘Yes, we’d like to see more of those’. We talked about it among ourselves and clarified what it is that we need to go away and do. They showed how these children could learn.”*

A teacher in a different school explained her reasons for changes in expectations in the following way: *“We’ve now seen our children moving out of that emergent level at a much faster rate with a lot more confident approaches to reading and with a wider development of strategies to cope with text.”*

A literacy leader in another school indicated that changed expectations had altered their approach to testing the children’s progress. Prior to the professional development they had not assessed the children’s text levels because it was assumed that they were not ready to read text. *“We actually never tested the text levels, whether the children were moving in the first year of school – it was a readiness thing because we felt that the children were still at that emergent stage. Maybe it [the professional development] made us lift our expectations of what children can do. It’s made us look at what we’re doing ourselves. The professional development has given the staff the skills to do that.”*

The teachers from one school had much lower ratings (average 4.5) in their change in expectations. The teachers in this school had decided not to adopt the ECPL approach to teaching literacy, but rather incorporate parts into their existing programme. They indicated in their interviews that they saw no reason to change either their expectations or their teaching methods. As one teacher explained, she, *“always had high expectations”* so saw no reason to change.

What was different about the follow-up interview responses at this school was that children’s achievement was rarely mentioned, suggesting that this was not particularly salient in terms of cues to which they were attending. Conversely, issues such as the children’s special needs and lack of readiness were more salient in that they were frequently mentioned. One teacher explained: *“I feel that it’s very important not to push these children beyond their learning capabilities or their absorption levels at that time.”*



*You can't push these children into a place where they're not ready. Then you see what will happen – and I've seen it myself – you get to a certain level and then they'll flounder.”*

Another expressed a similar sentiment: *“I think some of the language [in the professional development] is beyond most of the children that come into our school. We go with very basic and very simple language.”* Similar sentiments were expressed by only one teacher in all the interviews in the other schools.

Interview responses a year following the completion of the professional development indicated most of the teachers in the other schools continued to believe that children could achieve at accelerated rates, with all expressing the hope that they would reach at least the lower end of national levels of green book level. Thirty-two percent of the teachers expressed hopes above these levels, mentioning a level equivalent to green or orange which placed them in the centre or slightly above national bands of achievement (see Reading Recovery, 1993). As one said, when asked what she hoped the children in her class would achieve in reading after one year at school: *“I'm hoping that they will be towards the end of green and heading for orange but I don't know if they all will be. But that is the majority of the children minus the one or two. Most of them are definitely getting there.”* Others also talked in a similar way: *“I think we are on track to get most of them to blue”,* and *“We should be able to make blue or green after a year, they're going so well now.”*

### **Changed Understanding of What Children Know about Literacy when they arrive at School**

Table 1.2 indicates that the teachers' self-ratings of what children know about reading when they arrive at school, although not as high as the changed expectations of progress, still show substantial shifts for all schools, except the school that decided not to adopt the new teaching approach. Their ratings of “1” indicated that they had not changed their understanding. One teacher from a school with typical ratings explained how her focus had changed and she had become more analytical about what children knew. *“I realise that they actually know more about book knowledge than I was aware of before, like where a book starts and ends, all that sort of thing. I wasn't really focusing on that before, but now after doing the course, I can see that the kids come in with that knowledge already, you don't need to teach it.”*



The issue of failing to recognise what some children brought to school was also mentioned by a literacy leader in another school. In response to teachers indicating that they thought the writing instruction was too difficult for the children in their classes, the professional development contractor suggested that the teachers test how many letters the children could record from a sentence the teacher dictated. The literacy leader explained, *“Some of the teachers were surprised at what the children could actually write. They had not realised how much they could. One teacher in particular was really blown away and said, ‘How do they know that? I haven’t got round to that letter yet.’ And so that raised the question that they [the children] knew a lot more than the teacher gave them credit for.”*

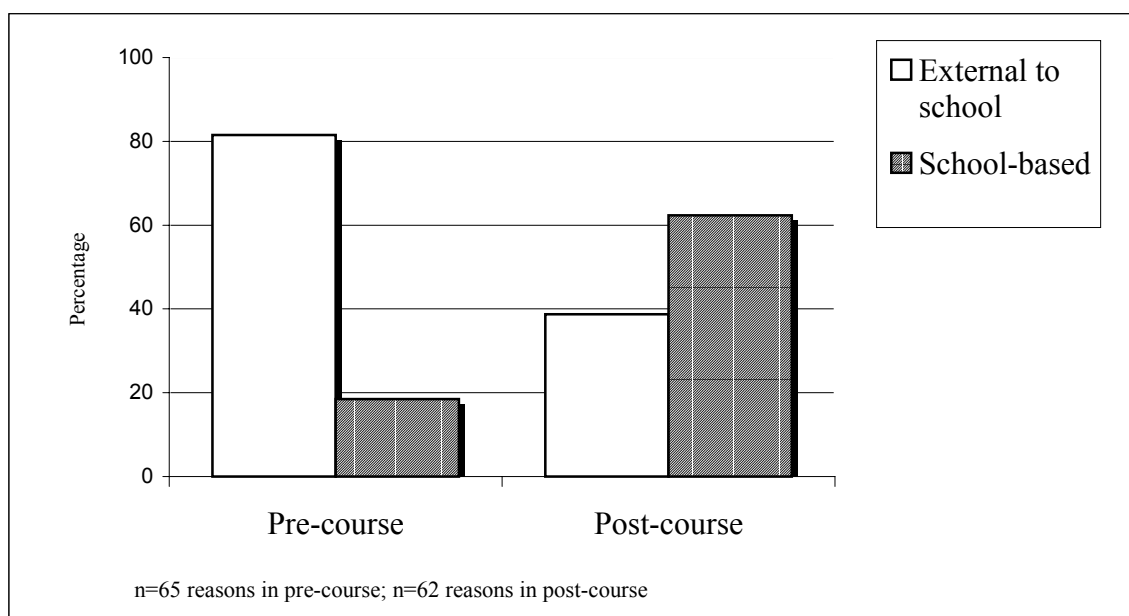
### **Feelings of School and Self-efficacy**

While the present study cannot determine casual relationships between changing expectations and changing beliefs about school and self-efficacy, the change in pre- and post-course ratings in Figure 1.2 indicate that with increasing expectations came an increasing sense of school and self-efficacy.



**Figure 1.2**

**Percentage of Externally based and School-Based Reasons, Pre- and Post-Course, for the Literacy Achievement Levels of Children in Mangere and Otara**



Reasons that were external to the school mostly focused on the inadequacies of the families, parents and community. For example, in the pre-course questionnaire, three teachers wrote: *“The children come to school with limited experiences”*, *“A lack of oral language / English as a second language”*, and *“Lack of interest from parents / caregivers”*. Most of the reasons given in the post-course questionnaire indicted a greater willingness by teachers to examine their own practice. For example, three wrote: *“We don’t know how to teach them to read effectively”*, *“Sometimes the strategies / methods of how to deal with English as a second language children are not there”*, and *“Teacher / school expectations”*. The shift in the teachers responses was significant as indicated by the chi-square (McNemar variation) ( $\chi^2(1)=7.9$ , ( $p<0.01$ )).

One teacher explained in her interview, *“I’ve been given skills to use which I didn’t really think I had before. I mean I did have the skills but not quite the same way.”*



However, the message that what teachers did directly affected how well students learnt was not a message initially welcomed by all teachers. One explained in her interview, *“She [the professional development contractor] said that we had to work harder to make things easier for the children. I resented that because I was working hard. Now I see what she means - what I do changes how the children learn.”*

The school that decided not to adopt the approach to literacy, once again, was different from other schools in that the teachers gave a higher percentage of externally-based reasons on the post-course questionnaire (83.3%) than the pre-course questionnaire (75%). Most of this change was attributable to one teacher who gave all school-based reasons in the pre-questionnaire but changed her responses to external reasons in the post-questionnaire.

While Figure 1.2 shows teachers' beliefs about the efficacy of schools in the two districts, Table 1.3 indicates the teachers' feelings about their self-efficacy because the lines they drew indicated the relative influence of economic, parents / whanau and themselves as teachers. Change in the length of the lines indicates a shift in beliefs about relative influence. The economic line was fixed at 46 mm. Only one teacher in the school that decided not to adopt the approach to literacy answered this question. Predictably, her answers went against the trend for others.

**Table 1.3**

**Average Length of Lines (in mm) Indicating the Relative Influence of Economic, Parents / Whanau and Teachers on Children's Achievement**

**(n=26)**

	Pre-course	Post-course
Influence factors		
Economic	46	46
Parents / whanau	79.2	56.2
Teachers	72.8	75.5



The t-test results indicated that the shift in the length of line for parents / whanau influence was significant ( $t(26)=3.870(p<0.01)$ ) but not for the teachers themselves ( $t(26)=0.211(p>0.01)$ ).

The changes in reasons for low achievement and the line length for parents' influence indicate that the teachers were less focused on external factors and more focused on their own teaching when thinking about low student achievement. The interview responses indicated that teachers still believed that economic and family influences were very strong, but that they had a different attitude towards the parents. As one explained, *“I felt that the question was ambiguous because I think the background of the child does have a massive amount of influence. But if you let that rule your thinking you will do what we've done in the past which is tend to think, ‘Oh well, these children come from this background, we can't expect as much,’ but I mean there's no doubt about it that their background does have influence on what they can do, but I think if we can put that to one side and focus on what they can do, then we can do better.”*

The teachers at the school that did not adopt the approach to literacy or change their expectations did not appear to experience these feelings of ambiguity and tension. As one described, *“I believe that children learn at their own pace but there are children you will be able to identify that need a little push. And then you have to push the right ones. But if you push the wrong ones, those children are going to suffer. With these children they all come from different backgrounds and the majority of them don't read at home. Parents don't listen to them so school is the only place of learning. It [the programme] could work with some children but not with all of them.”*

The change in focus of most teachers from parents to teachers was still evident a year after completing the professional development when they were asked, *“What do you think needs to happen to raise the achievement levels for the children you teach?”* Fifty-two percent of the responses focused on the teacher's own practice. For example, one teacher said, *“For some of them English is definitely a big issue – English is a second language. I need to provide a lot of support in the orientation of new books.”* Others referred to their own continued learning: *“I adequately plan but it is not a great masterpiece. I'm not extending them as much as I know I could be doing. I think that I could be doing a lot more in that area if I had someone to give me a hand”*. Twenty-six percent of the responses focused on other school-based factors, with half of these referring to uninterrupted, focused reading periods. For example, one teacher said, *“For*



everyone [school management] to be committed to my vision and leave other things that are less important and let us get on with our reading.” Only 21% referred to factors external to the school, such as attendance and parent support.

### Literacy Priorities Reflecting Expectations

Teachers clearly changed their literacy teaching priorities in the first three months of school after the course. As Table 1.4 indicates, priorities before the professional development were fairly equally split between teaching strategies and focusing on other priorities, such as “Settle them into school life”, “Foster a desire to learn and gain confidence”, and “Instill a love of reading and writing”. Following the course, the priorities were clearly teaching literacy strategies.

**Table 1.4**

#### Percentage of Respondents Nominating Literacy Strategies and Non-strategy (such as enjoyment) Priorities

	Pre-course (n=62 priorities)	Post-course (n=63 priorities)
Teaching literacy strategies	50	100
Non-literacy strategies	50	–

Note: All teachers are those who participated in the survey.

The chi-square (McNemar variation) results indicated that the pre-course / post-course shifts were highly significant ( $\chi^2(1)=29, p<0.01$ ). While changed expectations cannot solely account for these changes in teaching priorities because the professional development gave teachers new teaching strategies, as well as changing expectations, one teacher described how her priorities were shaped by new expectations: “[Previously] for that first week I would spend all my time just training them and then the next week I would probably take my groups but not so many, but because I feel a pressure now that I must get these children off quickly well, that’s two weeks I might waste doing that.”

Another described how she changed her teaching strategies on the arrival of a new child: “I’m taking my time now to look at what a child is doing in the classroom and why. You



*know, if Johnnie comes in the room, I am actually going to observe Johnnie doing something instead of saying, 'You go over there and play with those things and when I have time I'll see you'. We used to just give new entrant children something to do when they first arrived, or find a friend and that kept them happy – you just look after them and then when you have time, give him time. I used to think that they really don't know much and they're not quite ready. But no, no. Now I get on with it."*

Twenty-five percent of the responses from teachers at the school that decided not to adopt the approach to teaching literacy prior to the course were for teaching literacy strategies and these were all from one teacher. While these responses showed some shifts in priorities after the course to 67% for teaching literacy strategies, those teachers did not give literacy strategies the same level of priority as other schools after the course.

## **Discussion and Conclusions**

The professional development provided a set of conditions that led to most of the teachers changing their expectations of how well children from low-income communities could achieve and sustaining those expectations over the following year. Changes in expectations were achieved through the complex interplay of new domain knowledge in the form of redefining the reading task and how to teach it, changes in children's achievement and their own feelings of self-efficacy as proposed in Figure 1.1.

It cannot be said from this research that one aspect of the professional development was more powerful than the others, or that one aspect preceded another. In this study, they combined to have a powerful effect on the teachers' beliefs about what children from low-income homes are able to learn and the sustaining of those beliefs over time. Student achievement itself was made a more salient goal for these teachers. Their interview comments indicated that prior to the professional development, high achievement for new entrant children was neither expected nor monitored. Achievement was not a salient goal and so cues to its progress were not attended to. Improved achievement seemed possible through demonstrations by the professional development trainer and their own experiences with teaching children in new ways. Further research will need to unravel which, if any, of these aspects were more important than the others.

One of the underlying messages throughout the professional development was that what teachers did directly impacted on what children learnt. The interviews suggested that this



was perhaps one of the most difficult aspects for teachers to accept – that they were responsible for what the children learnt. However, as teachers became more skilled in using different teaching methods, their sense of self-efficacy increased and different student achievement goals appeared obtainable. Their existing assumptions about the knowledge acquired by children when they arrived at school were challenged through improvements in observational skills.

However, the lack of change in the school that decided not to adopt the ECPL approach to teaching literacy serves as a salient reminder that the same professional development may not have the same impact in all schools. The profile of expectations and efficacy at this school after the professional development was similar to other schools prior to the professional development. It was not that these teachers failed to care about the children or rejected the new approach lightly. They sincerely believed that their own approach was superior and demonstrated a willingness to learn and change by incorporating some aspects of the professional development into their existing programme. What was different about these teachers was that they based their decisions about their programme on a pattern of assumptions reflecting low expectations. Achievement was not a goal of particular salience and the cues to which the teachers attended were focused on their teaching strategies, not the relationship between these strategies and the children's achievement.

We would predict that in none of the schools would these expectations have been sustained without the acquisition of improved domain knowledge so that they could observe and teach more effectively and use self-regulating strategies to assess progress towards the new achievement goals. If changed expectations are not to become a fleeting moment of inspiration that fade and die in the face of reality, these changes in domain knowledge are as important as the changed expectations themselves. If professional development is to have both a fleeting and lasting effect on achievement expectations for children from low-income communities, it needs to address both the teachers' beliefs and improvement in their practices.



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