



MINISTRY OF EDUCATION

*Te Tākahu o te Mātauranga*

# Picking Up The Pace

*A Summary*





*Effective literacy interventions for  
accelerated progress over the transition  
into decile one schools.*



**Gwenneth Phillips**  
**Stuart McNaughton**  
**Shelley MacDonald**

**Summary prepared by Michael Keith**

## Foreword

On the centenary of renowned educationalist Dr Clarence Beeby's birth, the success of this research brings to mind the statement he prepared for the then Prime Minister Peter Fraser in 1939. The statement said broadly that the Government's objective should be that every person regardless of their ability or whether they are rich or poor, has the right to a free education and the opportunity to realise their fullest potential.

For children to become confident learners and succeed in all aspects of life, they must gain a strong foundation in literacy in their early years. The national literacy strategy has had, and continues to have a strong focus on raising achievement in literacy for all students as well as reducing the disparities which have existed for some time between our highest and lowest performing students.

In its report to Government in 1999, the Literacy Taskforce indicated its awareness of classrooms throughout New Zealand where children who might have made low progress because they met the profile of underachieving groups, were in fact making excellent progress. The taskforce was concerned that not enough was known about the particular classroom practice that brought about this success, and recommended that more research be undertaken so that better guidance could be provided to teachers.

*Picking up the Pace* is an example of an innovative intervention that has worked to raise the literacy achievement of children in decile one schools involved in the Strengthening Education in Mangere and Otara (SEMO) schooling improvement initiative in South Auckland. The resounding key message from this research is that low rates of progress in literacy are neither inevitable nor unchangeable for children in low-decile schools. The success of *Picking up the Pace* is a tribute to the efforts of the people involved. Its success has also highlighted the critical importance of families, schools and teachers having the highest possible expectations of what children can and should achieve.

The Ministry will continue to work with schools to lift the pace in literacy. *Picking up the Pace* demonstrates how teachers with openness and commitment to professional development can make literacy achievement happen. Principals and managers also have a key role to play in promoting high expectations for effective classroom instruction and promoting and supporting the professional expertise of their staff.



Howard Fancy  
*Secretary for Education*



Published in 2002 by:  
Strengthening Education in Mangere and Otara (SEMO)  
Ministry of Education  
Private Bag 94016  
South Auckland Mail Centre  
Manukau  
AUCKLAND

ISBN 0-478-27201-4

Copyright © Ministry of Education  
All rights reserved. Enquiries should be made to the publisher.

# Picking Up the Pace

## Boosting new entrants' literacy achievement in low decile schools

*The research, the issues — an action document for early childhood centres and primary schools. This publication is a summary of Picking up the Pace, a report to the Ministry of Education on the Early Childhood Primary Links via Literacy (ECPL) Project. The full report is available at [www.minedu.govt.nz/goto/pickingupthepace](http://www.minedu.govt.nz/goto/pickingupthepace) along with an electronic version of this summary.*

## Contents

Overview of the project	5
The issues at the core of the project	5
How the research was done	7
The implications	11
Continuing apace	15

## The project in a nutshell

A research project has delivered concentrated professional development in literacy instruction to groups of early childhood and new entrant teachers in Mangere and Otara. The outcome has been a substantial lift in the reading and writing achievement of new entrants.

## Key messages from the findings

- **You can raise levels of literacy achievement in low decile schools.** Home and language factors aren't necessarily associated with children's low achievement. By the time they were six, the new entrants targeted in this study were reading and writing close to the expected levels achieved by six-year-olds across the country.
- **The Early Childhood Primary Links via Literacy (ECPL) Project is an example of effective innovation.**
  - It is a combined approach between communities, educators, researchers, and the Ministry of Education.
  - It has happened in community early childhood centres and mainstream schools with regular classroom practitioners.
  - It has taken an integrated, not a piecemeal, approach to improving literacy instruction within standard curriculum programmes.
  - Its results have been repeated three times.
  - **Teachers who are open and committed to this kind of professional development can raise literacy achievement.** The professional development challenged their ideas and expectations about:
    - how children become literate
    - children's ability to learn
    - themselves as expert professionals
    - their effectiveness as teachers.

The training enhanced their ideas, raised their expectations, and developed their practice.

## Who are these messages for?

What has happened in this project has a bearing on the work of all decile 1-3 primary schools and the early childhood centres in those communities. The project's findings will be relevant and thought-provoking for:

- **teachers** - in their development as expert professionals and in the implementation of effective literacy programmes in classrooms and centres
- **principals and managers** - in planning how schools and early childhood centres can be organised and managed to implement effective literacy teaching; in considering their role in reviewing existing classroom practice and in leading and sustaining change
- **trustees** - in assisting to implement the vision of high levels of literacy achievement for all children in their schools and early childhood centres.

## Overview of the project

The Early Childhood Primary Links via Literacy (ECPL) Project was part of a much broader project, Strengthening Education in Mangere and Otara (SEMO), which was aimed at raising achievement significantly among all students in these two communities.

### The aim

The professional development component of the ECPL project aimed to improve children's literacy achievement by:

- enhancing the work of early childhood and primary teachers in the literacy programmes that they provided
- improving the links between early childhood centres and primary schools.

### The setting

The study involved a cluster of decile 1 primary schools in Otara and Mangere in South Auckland and of early childhood centres associated with the schools' communities. Over 90 percent of the children in these communities are from Maori and/or Pacific Island homes.

### Key players

The study was developed by academics, educators, and researchers from the Woolf Fisher Research Centre, University of Auckland (situated in the Manukau Institute of Technology) and The Child Literacy Foundation. They worked with 37 teachers from 15 early childhood centres and 73 teachers from 12 primary schools. A total of 415 children participated in the research.

## The issues at the core of the project

### The background

#### What is the 'pace' to be picked up?

The 'pace' in the title of this study refers to various things. One is the speed of reaching the expected level of progress that children should make in their literacy achievement. Another is the pace of children's actual progress that teachers need to pick up on - to see that progress. Another is the pace that teachers themselves need to pick up, in their own practice, in order to be effective literacy instructors.

The focus here is on a significant group of children who need a special kind of speeding-up in order to 'pick up' the expected rate of progress in their literacy achievement. If they do not pick up the pace, they are at risk of being left behind the majority of their peers in ways that are detrimental to their overall levels of achievement at school. More effective instruction is urgently needed to get these children under way, close the gaps between them and their peers as soon as possible after their entry to school, and guarantee development in literacy across a broad front.

## Which children need to ‘pick up the pace’?

In many education systems throughout the world, some children, especially those from cultural and linguistic minority groups and low-income communities, achieve less well in literacy than other children. Many low-decile schools exemplify this case in New Zealand - and the majority of these children are from Maori and/or Pacific Islands backgrounds.

Literacy programmes typical in many classrooms have not been effective for all New Zealand children. In particular, some current programmes do not address the need for early and accelerated learning to get children in low-decile schools up to speed with their peers in achievement expected for their age.

## The widening gap

When many children in low-decile schools have been tested on conventional school literacy measures, this is the big picture that we get in comparison with expected levels of literacy achievement.

- When the children enter school, national data from School Entry Assessment and studies including *Picking up the Pace* show that they have significantly lower levels of achievement and knowledge in such measures as concepts about print, story retelling in English, alphabet knowledge and writing vocabulary.
- At age six, marked disparities continue in reading and writing words, text reading, and writing.
- After four years at school, the literacy gap has widened even more markedly.

## The risky business of going to a low-decile school

This is not a new problem. For many years, both here and internationally, this gap has posed a compelling and seemingly intractable challenge for education systems and instruction.

It leads to the common belief that if children go to a low-decile school, they run a very high risk of not getting up to the expected national level of achievement in literacy. With that come all the related difficulties of low achievement in other subjects and limited study skills.

## Does it have to be like this?

A selection of the usual reasons given (or, sometimes, assumptions made) when people try to identify causes for the gap include:

- a lack of quality preschool and/or home experience of learning
- the children’s English language deficiencies
- their lack of literacy experience
- an insufficient emphasis on phonics in classroom programmes.

However, this study and various others, both here and overseas, give a different picture. *Picking Up the Pace* and other studies show that this kind of gap is neither inevitable nor unbridgeable.

## How the research was done

### The questions to be answered

The researchers in this study set themselves two questions to answer.

- What would be the separate and combined effects on children's literacy achievement of providing professional development to teachers in early childhood centres and to teachers of children in their first year of schooling?
- Could this professional development result in an increased number of children in decile 1 schools achieving at expected levels for their age at school entry and at 6,0 years?

### The focus

The focus of the study was on children's transition to school. The ages of the children involved ranged from 4,6 (four years and six months) to 6,0 years. This is a critical time for getting children from low-decile communities under way in their school learning and for accelerating progress to enable them to pick up the pace of expected achievement. The project was concerned with improving literacy instruction in both early childhood centres and primary schools. It also aimed to build a common understanding in both settings about the transition between institutions.

### Who was involved

#### The children

There were three different groups of children involved in the study.

- **The Early Childhood Intervention Group:** these children were taught in early childhood centres by teachers who had undergone special professional development. They were 4,6 years at the beginning of the intervention. Some of them went on to schools involved in the project. Some of them didn't. Some of those who did also experienced teachers who had undergone the primary school professional development. These children were studied for the combined effects of the early childhood and primary interventions.
- **The New Entrant Intervention Group:** these children were 5,0 years at the beginning of the intervention. They were taught from the time of their entry to school by teachers who were undergoing the project's professional development.
- **The Non Intervention Group:** these children were 5,6 years shortly before the professional development began at their school. They were in the classrooms of teachers who undertook professional development. They were not excluded from participating in the teachers' efforts to implement new practices, but they were not targeted by those teachers.

#### The teachers

The 37 early childhood teachers came from 15 centres: 8 kindergartens, 5 language groups, 1 school-based group, and 1 church-based group primary school. Almost half the teachers identified as Pacific Islands (46 percent), 38 percent as Pakeha, and 16 percent as Maori.

The 73 primary teachers came from 12 schools (11 were decile 1 and one was decile 3). Nearly half identified as Pakeha (45 percent), 25 percent as Pacific Islands, 11 percent as Maori, and 19 percent as Other.

## **What was done - professional development**

### **Early childhood centres**

For the early childhood teachers, the professional development aimed to broaden teachers' ideas about literacy, about teaching, learning, and development, and about their goals for children's development. Literacy activities focused on were Reading To Children, Guided Writing, and Telling (or retelling) Stories. The training aimed to show how, under appropriate conditions, these activities could produce a variety of learning outcomes and promote school forms of language and literacy.

The development also aimed to foster shared expectations within the group of teachers about the transition to school. Teachers discussed their children's development over the last six months before school in relationship to known profiles of children on entry to school, both nationally and in their communities. The objective was to have a shared understanding about the patterns of development that are possible.

### **Primary schools**

For the primary teachers, the professional development aimed to change teachers' beliefs about language, learning, and literacy. This focused on helping teachers manage the mismatches between children's current expertise and the requirement for classroom learning that are inevitable during early literacy instruction. It involved intensive teaching. In-depth understandings of language, literacy, and learning were fostered to enable teachers to think and practise in ways that enhanced children's opportunities to acquire literacy in the classroom.

This involved teachers:

- having greater awareness of the behaviours that signal children's understandings of the task, and hence an awareness of the relevance of experience and strengths in language and literacy that children bring to school
- helping children make connections between school literacy and children's diverse social worlds and understandings especially in writing
- being able to observe children's behaviour in reading and writing in more specific and focused ways in order to draw children's current strengths into the acquisition process
- learning how to monitor their own reading and writing behaviour.

### **Joint professional development sessions**

There were several professional development sessions involving teachers from both settings. These sessions focused on the transition to school. They enabled a flow of information and better understanding on the part of both sets of teachers about the literacy teaching and learning involved in each other's settings.

Questionnaires had established that some teachers had limited awareness of the possible range and diversity of children's language and literacy skills on entry to school, so the sessions were also used to increase awareness of these.

## What was done - measuring progress

### Getting the baseline measures

To get a baseline for the study, the researchers measured the literacy achievement levels of a sample of children aged 5,0 years, 5,6 years, and 6,0 years one month before teachers at their schools undertook the project's professional development. The overall results matched up with the big picture described above - these were 'typical' decile 1 school achievement profiles.

But the results also showed considerable variation between individuals on school entry. And some schools had overall much higher levels of achievement than others. Even in the baseline figures, there were some indicators that high achievement was possible.

### Tracking the children's progress

The researchers tracked the progress of the three different groups of children at six-monthly intervals. They compared the children's progress across these groups and with the baseline group - which came from the same cluster of schools but had not been involved in the programme. To check the consistency, the researchers repeated this process in three phases - with three different groups of schools and early childhood centres, at three different times.

### Summary of the tests used

#### Literacy measures

- Concepts about Print (CAP) - tests knowledge of concepts about written texts, for example, directionality, one-to-one correspondence, word order in sentences, and letter order in words (used in early childhood centres and schools)
- Letter Identification (LID) - tests ability to identify a letter by any means (used in early childhood centres and schools)
- Hearing and Recording Sounds in Words (H&RS) - tests ability to record letters for sounds heard in words (used in early childhood centres and schools)
- Writing Vocabulary (WRVOC) - tests number of words written correctly in a 10-minute writing session (used in early childhood centres and schools)
- Clay word recognition (WORD) - tests recognition of high frequency words (used in schools only)
- Burt word recognition (BURT) - tests recognition of words generally (used in schools only)

#### Language measures

- Tell Me language assessment procedure (RETELL) - tests ability to listen to and then retell an unfamiliar story to an audience (but not used at 6,0 years)
- Peabody Picture Vocabulary test (PPVT) - tests receptive language (not used at 6,0 years)]

#### Text levels

- (TEXT) – Progress through a gradient of difficulty based on the core series of instructional books used in New Zealand classes was provided by a measure of text levels

## The results

One of the most powerful results of the intervention was highlighted in an analysis of the risk children faced of not achieving expected literacy levels. As the figure below shows, children in the New Entrant Intervention group had a greatly reduced risk of achieving below expected levels compared with the baseline group of children who were not involved in the programme.

In this graph 1.0 represents no risk at all. A risk of 3.0 on the other hand, means a three-fold increase in the number of children not achieving at expected levels. Before the intervention the risk was high or very high for children not achieving in all areas apart from LID and H&RS. After the intervention the risk was reduced in all areas.

*Educational significance: Risk of not achieving expected literacy levels at 6,0  
(Pre and post intervention)*



## Early childhood intervention

This intervention had an important impact on these children's literacy and language development. They entered school with significantly higher scores on conventional measures of literacy and language than other groups of children in these schools. They were close to national expected levels in concepts about print, and even exceeded the expected levels in the retelling task. The intervention was as effective for Maori as for Pacific Island children.

## New entrants intervention

The intervention accelerated the progress of children over the first six months of school. Significant gains across a broad range of literacy measures occurred compared with baseline groups and the non-intervention group. This was despite low scores in the language and literacy measures at entry to school. The figures for 6,0 years show that the intervention continued to enhance the children's achievement up to six months after the professional development.

The result was a general lowering of risk of these children not achieving expected literacy levels at 6,0 years. There was a dramatic lowering in the areas where the risk was greatest (WRVOC, TEXT, BURT). The greatest effects were on the children on whom the teachers' efforts were focused - the new entrants. The older children not directly involved in the project's professional development did not show anything like these effects.

## Early childhood/new entrants combined

For the early childhood intervention children who went on to primary intervention classrooms, some effects showed up at 5,6 years compared with children who had had the primary intervention only. By 6,0 years, the advantages showed up only in concepts about print - where the early childhood intervention had its most marked effect at 5,0 years.

Interestingly, the early childhood children who went into classrooms without the primary intervention made very similar gains to those who went into classrooms with the primary intervention. This suggests that their increased expertise at entry may have allowed them to engage with a variety of programmes, or that their teachers, even without the professional development, were more able to pick up on the expertise that they had. Indeed, some research studies indicate that the benefits of quality early childhood programmes may show up even further down the track at school.

## The implications

Low rates of progress in literacy are neither inevitable nor unchangeable in low-decile schools. Educators working in these environments can help bring children up to speed - to expected national levels of achievement.

## Effective literacy instruction

The hallmarks of effectiveness in this project both confirm and extend observations of other studies on effective teaching both here and overseas. The findings confirm several key elements in what works.

## **Rich texts**

Effective teachers of literacy use activities involving texts rich in meaning for the children:

- for reading, texts that engage children's interest, draw on their cultural and social identities, and are used for a wide range of purposes that have meaning
- for writing, texts written for a wide range of real communicative purposes.

## **Decoding taught in the context of real reading**

Effective literacy instruction incorporates instruction for decoding using a wide variety of procedures, overwhelmingly in the context of real reading. Given these conditions, children have been shown to acquire detailed phonological skills and knowledge over their first two years of instruction. Effective teachers will be concerned to teach those things, whether their overall programme approach is 'whole language' or whatever.

A narrow focus on the strengthening of the letter knowledge and sound knowledge mechanics such as worksheets, skills, and drills in phonics (which might seem to be indicated from low achievement scores) has shown limited gains in literacy achievement. The consensus from many studies is that improvement in such skills has only limited transfer to skills in comprehension and the reading and writing of 'real' texts. As in this study, children needed to be shown how that knowledge and skills can be used in reading and writing. Lack of access to reading and writing continuous text reduces further acquisition of mechanics, sight word vocabulary, and text reading and writing skills, including comprehension.

## **Flexible and adaptable instruction**

Effective teachers employ a wide range of instructional activities and forms of guidance - not as a recipe but as an integrated whole, and these are changed and adjusted to suit individual needs.

## **Systematic observation and personalised instruction**

Through systematic observation, effective teachers get to know their children very well, well enough to provide to the children feedback that matches their level of understanding, informing them and motivating them to progress their achievement - in other words, personalised instruction.

## **High expectations**

Effective teachers have expectations that children can achieve academic progress and believe that they can be effective in helping to do this. For example, in literacy, they believe that their children can attain independence in reading and writing, and they continually look for opportunities to move them up a gradient of difficulty, with appropriate interactive support.

## **Teachers as expert professionals**

Regular classroom teachers can develop their expertise - they can deliver effective literacy instruction. Their ideas and expectations about their effectiveness and children's capacity to achieve are important. A major hurdle for them is to be prepared to take responsibility for the outcomes of their teaching, not to believe that factors in the home and the child are the cause for lack of progress.

## **A community of learning**

The kind of professional development undergone in this project is challenging and demanding in time and personal commitment to implement change - in ideas and approaches. A major source of support to meet these challenges is teachers' awareness that they are not alone. A team approach was advocated. Professionals throughout the school can and must form their own effective community of learning

## **Early childhood centres and the transition to school**

### **Building continuity**

This project aimed to enhance the developmental and educational effects of early childhood education on literacy. The approach adopted to achieve this was, within the guidelines of the curriculum Te Whāriki, to enhance early childhood literacy activities so that they more closely complemented similar activities at school. The project also aimed to deliberately build a common understanding in both early childhood and school settings about the issues of transition. This was part of the process of 'building continuity' for children.

### **Quality in early childhood programmes**

The early childhood intervention has clarified ways in which teachers might select, arrange, and put into practice activities that enhance children's emergent literacy and language skills and knowledge. It was notable too that the project saw marked gains in children's English language skills at school entry.

## **Schools and the transition to school**

### **Awareness of children's diversity**

Educators working in low-decile schools and communities need to be aware of the range of children's diversity - of background, language skills, and literacy experience. School entry literacy assessment may not measure the diversity of skills and experience that children of cultural and linguistic minorities bring to school. And there is great diversity in the knowledge and expertise of children, both across these groups and within any group, as measured by conventional literacy measures. Teachers need to be aware of the knowledge and expertise relevant to the tasks to be learned that individual children actually have. This is the foundation for an approach which builds on strengths and can accelerate progress.

### **Managing mismatches**

Children from cultural and linguistic minorities (indeed all learners) face a mismatch between what they know and what they need to know in order to make good progress in acquiring literacy. Teachers need to be aware of these discrepancies and mismatches. More, they need to view these in positive terms, see them as opportunities for development, and learn to harness their potential.

## Getting into an upward spiral of learning

Children's preparedness for school instruction and the school's ability to engage them in it have both been enhanced by the approach taken in this study. It confirms findings from other studies showing that children who can engage competently with instructional activities they meet at school are able to get into a pattern of exponential growth in their learning and development. Children with more expertise enter into dynamic relationships with teachers. If they know more or have more expertise in an area on which instruction is focused, they can get more out of it. The learning spirals up ('the rich get richer'). If this doesn't happen, the learning can spiral down ('the poor get poorer')

By the same token, dynamic relations form even with little expertise on the children's part - if teachers know how to capitalise on the relevant expertise that children do have. Children's preparedness is only an issue if teachers assume some expertise is necessary and/or don't know how to find children's relevant strengths. The primary professional development's perspective was that the teacher needs to take responsibility for focusing instruction to enable children to 'get' the learning. Given this, once a child is at school, the upward spiral of learning is an outcome of what teachers do deliberately, rather than relying on children's preparedness or entry levels.

The pace and development of teaching and learning in such a system is a product of joint participation between child and teacher. The low-decile children and their teachers in this study have all shown that they can pick up this pace.

## What happens in primary schools

### Year 1 class sizes

The project findings point to a significant relationship between class sizes for new entrants and the gains made in their achievement levels. These suggest that compromises had to be made for some new entrant children during the study. For maximum benefit from this kind of approach, it is recommended that class sizes for children in their first year of schooling in low decile schools should not exceed 18. This could pose major organisational challenges to schools.

However, the study showed that while class size did make a difference, the smaller the classes the better the outcomes, but only in conjunction with professional development. Without professional development, class size may make no difference.

### Effective practice in Year 1

The project confirms and adds to descriptions of what counts as effective practice in literacy instruction in general. It also confirms that teachers from a wide range of backgrounds can become more effective practitioners. The teachers in this project were able to develop effective programmes for children in their first year of schooling in low-decile schools. They were able to come to new understandings of literacy and language and to refine and refocus their teaching to build on children's diversity and the inevitable mismatches between home and school settings.

### Ideas about literacy and language

The professional development used in *Picking up the Pace* offers a theoretical base for helping teachers to understand the process of acquiring literacy and the need for awareness of the language they use in instruction. It also offers an approach that can resolve the tensions between so-called 'phonics' and 'whole language' instructional approaches.

## Continuing apace

Within the area where the project has taken place, there is much more to be done to ensure that the gains continue and extend. Securing the benefits requires not only the commitment of classroom teachers, but also leadership and support from principals, managers, and governing bodies.

For those involved in decile 1-3 schools throughout New Zealand, this project provides a demonstration of what can be done in raising expectations about, and results in, their children's literacy achievement levels. The Literacy Taskforce Report called for more research into what would make practice more effective for learners in these types of schools. This research does exactly that. Educators in Mangere and Otara have opened eyes to possibilities. They have provided evidence of what works as well as an example of the inspiration and vision that might enable schools to take on the challenge of 'picking up the pace' in literacy achievement.





