School Leadership and Student Outcomes: Identifying What Works and Why

Best Evidence Synthesis Iteration [BES]

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Chapter 7
This report is one of a series of best evidence synthesis iterations (BESs) commissioned by the Ministry of Education. The Iterative Best Evidence Synthesis Programme is seeking to support collaborative knowledge building and use across policy, research, and practice in education. This series of syntheses draws together bodies of research evidence to explain what works and why to improve valued education outcomes and to make a bigger difference for the education of all our children and young people. Each synthesis celebrates the work of educators and the inquiry processes that enable educators and researchers to bring about sustainable improvements in education. Each is part of an iterative process that anticipates future research and development informing educational practice.

Earlier BESs have focused on effective teaching and professional learning in schools and on the impact of family and community influences on educational outcomes. This School Leadership and Student Outcomes BES will prove a crucial support for school leaders as they address our shared challenge of preparing all our children for the future.

The International Academy of Education has commissioned summaries of the recent BESs developed by the Ministry of Education. While the full reports provide the explanations and vignettes that are needed to support educational change, these short summaries will also be a convenient help for leaders. They will be available on the International Academy of Education website www.iaaed.org and on the UNESCO website http://unesdoc.unesco.org. The first of these summaries to be published is:


Further information is available at www.educationcounts.govt.nz/goto/BES, and feedback is welcome at best.evidence@minedu.govt.nz
## Contents

Acknowledgments.......................................................................................................................... 10

7. Creating educationally powerful connections with family, whānau, and communities.... 142
   7.1 Methodology .................................................................................................................. 142
   7.2 What makes a bigger difference in school–family/whānau connections................. 143
       7.2.1 Approaches that have a high positive effect on student outcomes ................. 144
       7.2.2 Approaches that have a moderate positive effect on student outcomes ....... 146
       7.2.3 Approaches that have a small positive effect on student outcomes .......... 147
       7.2.4 Approaches that have no effect on student outcomes ................................... 148
       7.2.5 Approaches that have either no effect or a weak negative effect on student outcomes .......................................................................................................... 149
       7.2.6 Approaches that have a small negative effect on student outcomes ............ 149
       7.2.7 Summary ......................................................................................................... 150
   7.3 Creating educationally powerful connections through teaching............................ 150
   7.4 Creating educationally powerful connections through homework ....................... 154
       7.4.1 Does homework work? .................................................................................. 154
       7.4.2 What types of homework work best? ............................................................... 155
       7.4.3 What types of homework tend not to work? .................................................... 156
       7.4.4 Guidance on good homework and homework policies .................................... 158
   7.5 Creating educationally powerful connections through school–home relationships.... 160
       7.5.1 Joint school–home interventions to improve student achievement and/or behaviour .......................................................... 160
       7.5.2 Programmes that enhance the capacity of families to support student achievement .......................................................... 161
   7.6 Connecting school and home to address antisocial behaviour.................................... 165
   7.7 The need for teacher engagement and development............................................... 166
   7.8 Gaps in research and development............................................................................. 168
   7.9 Summary ..................................................................................................................... 169

References .................................................................................................................................. 275

Glossary of Māori terms .............................................................................................................. 287
7. Creating educationally powerful connections with family, whānau, and communities

What kinds of connections are most educationally powerful? There are three reasons why the answer to this question is of particular importance for school leaders:

First, such connections have the potential to enhance outcomes for all students, especially those who have been under-served or are at risk. This chapter shows that certain kinds of school–family connections and interventions can have large positive effects on the academic and social outcomes of students.

Second, some kinds of engagement with families and communities can be counterproductive. Schools can invest considerable time, energy, and resources in activities that end up having minimal or even negative impact on student outcomes. It is important that school leaders promote engagement that is effective.

Third, by establishing educationally powerful connections, leaders gain access to a greater range and depth of resources to support the work of their schools.

In this chapter, we address two key questions:

• What kinds of connections make the biggest difference?
• How can school leaders build educationally powerful connections with families, whānau, and communities?

A summary of the chapter is provided in Section 7.9.

7.1 Methodology

Only two of the 27 studies used to derive the leadership dimensions reported in Chapter 5 investigated the impact of leadership practices with a focus on school–community relationships. While there was marked variability in the findings of these two studies, ranging from a negative effect to a large positive effect, the average effect for this type of leadership was .28—comparable to the .27 effect for the dimension ‘Ensuring an orderly and supportive environment’. This suggests that it matters that leaders play a role in establishing connections with families—and that it matters how they go about doing this.

Given the scarcity of leadership studies on the impact of school–home connections, we turned to the broader literature on school–community relationships, including the Community and Family Influences BES, to generate the meta-analysis that informs this chapter. The purpose of the meta-analysis was to identify the relative impact of various types of school–home linkages on the social and academic outcomes of students.

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342 This chapter was authored by Adrienne Alton-Lee, Viviane Robinson, Margie Hohepa, and Claire Lloyd.
343 The terms ‘family’ and ‘parent’ are often used interchangeably in this chapter and should be understood to include parents and step-parents, grandparents, siblings, uncles and aunts, and others in a family or whānau who, by their care and interactions, are in a position to assist a child’s learning.
346 The failure to include this aspect of influence in most studies of leadership reflects a weakness in the literature rather than the unimportance of the issue.
The meta-analysis drew on 37 studies, syntheses, and meta-analyses, of which 16 were from New Zealand and 21 from other countries. Collectively, they reported on outcomes for over 180,000 students. The studies yielded 168 estimates (effect sizes) of the impact of various types of school–community connection on student outcomes. In some cases, these effect sizes were provided in the original research reports, and in others, they had to be calculated from the data provided. The 168 effects included 42 for homework and 126 for school–home connections. Following adjustments for sample size, the findings were grouped into the 19 categories of Figure 24, which shows them in order of effect size. The meta-analysis included a number of unpublished New Zealand studies that had not been through a peer-review process. The effect sizes for these were checked (if available) or constructed. Some categories include fewer source studies; these should be interpreted with more caution. The source studies or reports for each category are listed in Appendix 7.1, along with supplementary studies that inform the issues.

As in Chapter 4, we have used the following convention when interpreting effect sizes: 0 to .19, no or weak effect; .2 to .39, small effect; .4 to .59, moderate effect; ≥ .6, large effect. When interpreting negative effects, we have followed this convention: –.1 to –.19, no or weak negative effect; –.2 to –.39, small negative effect; –.40 to –.59, moderate negative effect; ≤ –.60, large negative effect.

A useful benchmark for judging the magnitude of effect is Hattie’s finding:

In our own New Zealand studies, we have estimated the yearly effect in reading, mathematics, and writing from years 4 to 13 (N = 83,751) is .35—although this is not linear.

Hattie suggests that .35 is the effect of a year of ‘average’ teaching and that, for a year of excellent teaching, it is about .60.

Our approach in this chapter is to highlight the potentially high impact that relatively brief interventions can have. After reporting the results of the meta-analysis, we elaborate the findings for school leaders and policy makers by providing further detail about more and less effective approaches.

7.2 What makes a bigger difference in school–family/whānau connections

After adjustment for sample size, the overall effect for school–family/whānau and community connections (excluding homework) was .42 but, as Figure 24 shows clearly, different types of school–home connection vary widely in their effectiveness. Joint interventions involving parents and teachers had the greatest impact on outcomes, with a very high effect of 1.81. While the overall effect for homework was only .22, the best homework practices had an effect of 1.38 and the least effective had impacts that were actually negative.

The findings in Figure 24 suggest there is great potential for leaders to counter patterns of under-achievement by building school–family connections that are explicitly related to the core business of teaching and learning. By means of such connections, student achievement can...
be dramatically raised. The high effect sizes obtained for brief interventions designed to help parents support their children’s learning contrast with the negative effects sometimes obtained for interventions where parents have lacked such support. The following commentary on the categories of intervention listed in Figure 24 is sequenced according to the size of the effects obtained.

**What makes a difference?**

![Figure 24: Findings of a meta-analysis of research on the educational impact of making connections between schools, families/whānau, and communities](image)

- **7.2.1 Approaches that have a high positive effect on student outcomes**
  - **Joint parent/whānau and teaching intervention**
    - **(overall effect size = 1.81)**
    - The highest overall effect was for interventions that were designed to help parents or other community members support children’s learning at home and school and that simultaneously provided teachers with professional development. This professional development was directed at promoting teaching that was aligned with, informed by, and supportive of community funds of knowledge and parent contribution. Examples are:
      - A user-friendly phonological awareness programme used both at school and at home as part of a language revitalisation programme. The activity involved students in naming items, identifying sounds in words, and then connecting sounds to letter shapes.
      - The training and use of parent and in-school peer tutors to support the reading of 6- to 12-year-olds.
      - Use of te reo Māori audio-recordings of books, made by elders, to support children’s language learning and reading at school and at home.
Training parents and teachers to work together in identifying and addressing behavioural and learning difficulties in 5- to 12-year-olds.

Of the 13 analyses informing this category, 12 involved joint school–home/whānau interventions and replications designed and led by the Poutama Pounamu Research and Development Centre for Māori-medium learning. These interventions, described in detail later in this chapter, involved the development and refinement of smart tools for intervention and assessment, the use of processes that created high levels of trust, and the provision and evaluation of learning support for parents and teachers as well as children. The other study was a literature review of eight joint parent–school literacy interventions in New Zealand and overseas. Most focused solely on literacy, but one had an additional focus on training parents and teachers to address behavioural and learning difficulties. In all these studies, parents and teachers were supported by external research and development expertise.

**Teacher-designed interactive homework with parents**

*(overall effect size = 1.38)*

The second-highest effect was for interventions involving teacher-designed interactive homework that engaged parents in assisting their children with their learning. These interventions were informed by research and development programmes in the US and a teacher’s postgraduate action-research study in New Zealand that proved highly effective in lifting the achievement of upper-secondary Pasifika students. Further examples are provided later in the chapter.

**Strategy to access family and/or community funds of knowledge**

*(overall effect size = 0.93)*

The third-highest effect was for interventions that incorporated family and community knowledge into curriculum and teaching; in some cases, these included a strategy to use homework for this purpose. The interventions involved such strategies as training students to interview their parents, bringing parents into the school as informants, drawing on research and development expertise, and collaborating with the community to develop curriculum informed by indigenous knowledge, and having elders write to and receive letters from individual children in te reo Māori. These interventions resulted in high achievement gains across a range of curriculum areas at both primary and secondary levels. More on making connections with family funds of knowledge across the curriculum can be found in the BESs that focus specifically on teaching.

**Teacher feedback on homework**

*(overall effect size = 0.81)*

The fourth-highest effect was found for teachers grading and providing feedback on homework. This contrasts with the much lower effect sizes for the assigning of homework that did not subsequently receive teacher feedback. Two US meta-analyses informed this category. Although derived from a limited evidence base, this finding is supported by Hattie’s conclusion that teacher feedback in class has high positive effects.
**Parent intervention**  
(overall effect size = .63)

The fifth-highest effect was for a wide range of interventions designed to assist parents to effectively support their children’s learning, but without a parallel intervention for teachers. Most often, these interventions involved after-school workshops or meetings with a focus on a particular area of the curriculum or on student behaviour or well-being. Such workshops were generally offered by schools themselves; some were supported by external expertise, and some involved children with their parents. While the effectiveness of the interventions varied considerably, the findings show that the overall effect for relatively small numbers of workshops can be higher than for a year’s teaching. They were less effective, however, than school–home interventions that were designed to shift the practices of both teachers and parents.

For the most part, the studies that informed this category reported interventions with a literacy focus, though they also included some mathematics and cross-curricular outcomes. Seven of the studies were meta-analyses or reviews. Two were US studies. One cost-effective New Zealand intervention was developed out of a randomised controlled trial with longitudinal follow-up. An evaluation was commissioned to inform this BES about the ways in which a school leadership team used this intervention to dramatically lift reading achievement in a low-decile school. The intervention involved a smart tool designed to help school leaders support parents to assist their children with reading (see Case 5).  

7.2.2 Approaches that have a moderate positive effect on student outcomes

**Parent involvement**  
(overall effect size = .47)

A moderate effect was found for parent involvement in children’s learning. Findings from four meta-analyses, three studies, and successive analyses from a New Zealand longitudinal study informed this category. Researchers used a range of measures to calculate an overall index of parent involvement. Indicators included participation in school activities, attendance at school functions, volunteering, parents’ communication with children about school, and parents’ support for their children’s learning.

It is clear from the findings that some kinds of parent involvement are more productive than others and that higher effects can be linked to the nature or quality of the involvement. For example, parent attendance at PTA meetings was found to be associated with higher student achievement in a US study but not in the New Zealand data. The role played by school leaders in, for example, keeping parents informed about their children’s progress or providing home learning resources or other support was a key to gaining the productive involvement of parents.

At the high school level, it was parent involvement in school outreach activities that had the greatest effect. Awareness of the courses their children were taking and the provision of guidance on academic decisions were both more highly associated with student outcomes than many other forms of parent involvement. A study with a high school focus found that the strongest predictor of grades was parent attendance at post-secondary planning workshops offered by schools for parents and students. This type of outreach was more highly associated with achievement than were parent-initiated meetings for the same purpose.

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7.2.3 Approaches that have a small positive effect on student outcomes

**Parent–child communication about school**
*overall effect size = .39*

This category was included because parent–child communication about school-related matters showed a small positive effect on measured student outcomes, while parent–child communication in general did not show such an effect. The evidence for this finding was limited to one US meta-analysis drawing on 10 source studies. A supplementary study of 11,348 US high school students358 found that parent–child communications relating to tertiary study were linked to higher achievement and better behaviour.

**Parent volunteering in school**
*overall effect size = .35*

This category was informed by a US meta-analysis and successive analyses from a New Zealand longitudinal study; these showed that parental volunteering had ongoing small positive effects in terms of achievement in mathematics, reading, and logical problem solving. In the New Zealand study, the effect of the link between parent volunteering in school activities and student achievement was found to be over and above the effects of family socio-economic status.

**Family-level intervention**
*overall effect size = .29*

This category included two New Zealand initiatives that involved interventions with parents. One introduced computers into the home; the other funded parents to improve their literacy by engaging in tertiary study. In both cases, other family supports were provided as part of the package. Although the interventions had positive effects on children’s outcomes over time—and, in one case, marked impacts on family employment and income—some outcomes were greater for the children in comparison groups than for those in the targeted families. Some of the inherent weaknesses in such interventions are discussed later in the chapter.

For leaders, the high effects associated with effective interventions that focus on student learning suggest that it is wise to complement broad, adult-focused policy interventions with targeted workshops that directly assist parents to support their children’s learning.

**Good teacher–parent relationship**
*overall effect size = .29*

This category, based on teacher self-report, was informed by a New Zealand longitudinal study and showed ongoing positive effects through to age 16 for teacher–parent relationships perceived to be good or better. This association of good teacher–parent relationships with higher student achievement was found to be over and above general effects linked to family socio-economic status.

**Parent support for homework**
*overall effect size = .28*

This category included general parent supervision of homework and the provision of books, library access, and other resources to support homework. One study spelled out what it meant by parent support for homework by listing indicators. These included: limit TV time, limit time out on school nights, monitor homework, be at home after school, ensure that home surroundings are conducive to study.

Computer in the home  
(overall effect size = .27)

The evidence for this effect came from a New Zealand longitudinal study, which showed that, for children aged 8 and upwards, a computer in the home had positive impacts on achievement in mathematics and logical problem solving. This positive effect continued through to ages 14 and 16 and was found to be over and above general effects linked to family socio-economic status.

Homework: general effects  
(overall effect size = .27)

This category was used to summarise the overall effects of homework on achievement. It was informed by large syntheses, meta-analyses, and studies, and it includes US and international findings on homework effects across the curriculum. Effect sizes for homework vary widely: they tend to be much higher for older students; for younger students, they can even be negative. This suggests the importance of homework design, age-appropriateness, degree of teacher support and feedback, and parent-provided support. Accordingly, our meta-analysis separates out findings for sub-categories that were more and less associated with student outcomes, highlighting, for example, the relatively high impact of teacher-designed interactive homework that involves parents.

Homework is one of the most ubiquitous and, at the same time, fraught of school–home connections. Over the past 20 years, there has been a shift in the evidence about its effectiveness. In 2006, Cooper359 and his colleagues found an overall effect size of .60 for the impact of homework on achievement in studies carried out with primary and secondary students since 1987. He contrasted the larger effects found in recent studies with the effect of .21 found in his 1989 review. He suggested that the careful matching of students in control groups and use of unit (rather than standardised) tests had improved the ability of the synthesis to detect homework effects. Hattie’s (2009) meta-analysis of 161 studies found an effect size of 0.29360. Clearly, it is less useful to discuss the average effect of homework than it is to identify the particular qualities that make homework either more or less effective. Later in this chapter, we highlight the role of school leadership in optimising homework policy and practice and making homework an effective school–home connection.

Time spent on homework  
(overall effect size = .23)

This finding was informed by six US meta-analyses and syntheses and one New Zealand study. There was considerable variation in the findings, with higher effect sizes for older students (.26 to .37) and some negative effects associated with longer periods spent on reading and mathematics homework by younger primary students. In New Zealand, a negative association was also found for extended time spent on homework by Pasifika students361.

7.2.4 Approaches that have no effect on student outcomes

Parent role in governance (no effect)

This category was informed by a New Zealand longitudinal study. It found that parental participation in school governance had no significant impact on student achievement. A US

360 Hattie (2009), op. cit.
study also found no effect on student outcomes\textsuperscript{362}. This finding contrasts with significant effects found for parent involvement in school events and activities that are focused specifically on the child’s learning. In the context of the Chicago reforms, Bryk and Schneider\textsuperscript{363} explore the role of school principals in optimising the impact of parent involvement in governance and reinforce the importance of relational trust in mediating the conditions for improved student outcomes (see Chapter 8, section 8.33).

7.2.5 Approaches that have either no effect or a weak negative effect on student outcomes

Frequency of teacher–parent interactions
(overall effect size = \(-.04\))

This category was informed by two Canadian studies and one US study that reported frequency of teacher–parent interactions. The findings appear to reflect a pattern of increased numbers of teacher–parent interactions following a disciplinary incident or identification of a problem.

Homework surveillance
(overall effect size = \(-.19\))

This category was informed by a US meta-analysis of six source analyses. The negative effect was associated with parental surveillance of homework, over-controlling communication, and insistence that work be completed. It contrasts with positive findings for parent supervision, encouragement, resourcing, and involvement in teacher-designed, interactive homework tasks.

7.2.6 Approaches that have a small negative effect on student outcomes

Parent help with homework
(overall effect size = \(-.24\))

This category was informed by five studies: two from the US, one from Cyprus, and two from New Zealand (including successive analyses from a longitudinal study). All found negative effects. ‘Parent help’ mainly consisted of ‘help’ with and checking of reading, language, and mathematics homework. Some of the studies quantified parent help in terms of number of minutes.

The New Zealand longitudinal study showed ongoing negative impacts for parent help through to age 16 on a range of student outcomes. The negative effects occurred for high, average, and low achievers. At \(-.24\), the overall effect was small, but moderate negative effects were found in Cyprus and, in New Zealand, helping 10-year-olds with reading homework was found to be associated with large and ongoing negative effects. Later in this chapter, we draw on a range of research to explore why parent help can have this negative effect and highlight the dramatic shifts that can occur when schools assist parents to support their children’s homework effectively.

Teacher–parent relationship less than good
(overall effect size = \(-.26\))

This category was informed by successive analyses from a New Zealand longitudinal study. It was found that, when teachers described their relationship with the parents of 10-year-old


children as ‘less than good’, there was a small, ongoing negative association with student achievement. This negative effect was found to be over and above effects linked to family socio-economic status. When teachers described their relationship with the parents of 8-year-old students as ‘satisfactory or worse’, the effect was moderately negative and ongoing. These findings highlight the importance of interventions that result in improved teacher–parent relationships as well as improved student outcomes.

7.2.7 Summary

The meta-analysis summarised in Figure 24 shows that proactive strategies to create and sustain educationally powerful school–home connections can have a significant impact. It also shows that, where schools do not provide such leadership, business-as-usual may actually do educational harm (as, for example, when parents try to help with homework and inadvertently undermine achievement). With effective assistance, parents can promote achievement of valued student outcomes in ways that support and resource the work of the school. This is true at both primary and secondary levels.

In the sections that follow, we address the question of how school leaders can effectively facilitate educationally powerful connections with families, whānau, and communities.

7.3 Creating educationally powerful connections through teaching

Leaders can promote educationally powerful connections between home, school, and community by utilising opportunities that arise out of the core business of teaching and learning. This may come as a surprise, because there is a tendency to think of school–home connections in terms of parent involvement in special programmes, extra-curricular activities, or particular tasks. But, as Figure 23 shows, one of the most educationally powerful strategies is to help students connect their school work with their family, cultural, and community experiences, knowledge, and skills.

The Social Sciences / Tikanga à Iwi BES364, a synthesis of 390 studies, identifies making connections to students’ lives as one of four mechanisms that facilitate learning and enhance achievement in the social sciences. The Mathematics/Pāngarau BES365 finds that effective mathematics teaching makes links to the prior knowledge and experiences of diverse learners. One of the 10 main findings of the Quality Teaching for Diverse Students BES366 is that student outcomes are enhanced when there are effective links between school and the various other contexts in which students are socialised.

As children progress through school, the extent to which the educational cultures of their homes and schools align has a powerful influence on their success367. McNaughton368 explains it this way:

For some kinds of families and communities, there is already a high degree of this kind of continuity with schooling in place. In these, as it were, ‘spontaneously’ well-matched families and schools, the knowledge and activities that are habitually part of the home life

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are already relatively well tuned to those activities at school; or, if you like, the school is well tuned to the activities of the home. This is the meaning behind the idea of ‘cultural capital’—the term contemporary sociology uses for the storehouse of experiences, knowledge, and attitudes a child can capitalise on when going to school, given the practices of schooling (p. 21).

In chapters 4, 5, and 6, we discussed the evidence relating to pedagogical leadership. Amongst other things, pedagogical leadership involves coordination and evaluation of the curriculum. An important criterion against which curricula should be evaluated is the extent to which units of work and teaching resources make connections with students’ lives and community resources.

The example in Box 16, drawn from teacher research in a New Zealand secondary school, illustrates how family and community resources can be integrated into a classical studies unit.

**Box 16. Designing curriculum units that make powerful connections with home cultures**

As part of her postgraduate study, McNeight369 carried out an action-research study of the effect of a unit of work in classical studies. The unit had been specially designed by the teacher to help her Pasifika students connect the curriculum with their own cultural resources. As part of their learning, the students were equipped with the interview skills and questions they needed to engage their relatives in a discussion of how the key ideas in the unit applied to Pasifika culture. They learned how to maintain focus and record conversations, and they were given practice and small-group opportunities to develop their confidence. Each day, the students were able to discuss their learning experiences with each other.

McNeight reported that this unit of work broke a pattern of failure among her Pasifika students and that their marks in classical studies doubled as a result. By valuing her students’ heritage sufficiently to include it in a well-designed curriculum unit, the teacher raised academic achievement, affirmed student identities, and strengthened teacher–parent relationships. Following completion of the unit, parents contacted the teacher, asking what the students would be studying next. McNeight’s action-research report documented in detail the experiences of four students. Accustomed to failing grades, all four passed this unit; this was a factor in their subsequent success in senior school qualifications.

While the above example says nothing about leadership per se, it is instructive for school leaders because it shows:

- the degree of planning and prior training that may be needed to help students link apparently alien aspects of the curriculum with the cultural knowledge of their communities;
- that even teachers who have little specific knowledge of students’ cultures can design units of work that make effective connections with those cultures;
- that strong school–home connections can be made without direct contact between teachers and parents (in this research, the teacher did not go into the community and the parents did not come into the school—the students were the mediators). This is particularly important for secondary schools, where teachers cannot realistically make personal contact with the parents of all their students.

The school leaders were highly supportive of this research, providing access to two classes. They were also very excited by the results. Despite this, neither the leaders nor the researcher were able to realise the latter’s intention that her research would inform wider school-based

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professional development. There was no formal process to spread the learning acquired by one teacher in one curriculum area to other teachers and other curriculum areas. Given the number of New Zealand teachers who, each year, complete research projects as part of their graduate studies, it is important to ask why this did not happen.

Table 14. Staff research: Personal project or school-based development opportunity?

| Staff research as private project | Staff research as opportunity for school-based professional learning and development
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Research is presented to leaders by the staff member as a personal project.</td>
<td>Researcher asks for personal support and links their project to school priorities and challenges.</td>
</tr>
<tr>
<td>Research is seen by leaders as a staff member’s private project.</td>
<td>School support is contingent on the research being more than a personal endeavour.</td>
</tr>
<tr>
<td>The staff member doing the project does not hold a leadership position so does not see themselves as a leader.</td>
<td>The school culture recognises leadership based on relevant expertise as well as position.</td>
</tr>
<tr>
<td>The project is categorised (classical studies) in a way that gives it lower priority than, or little apparent relevance to, other curriculum areas.</td>
<td>The project’s potential is assessed in terms of its relevance to an issue (engagement of Pasifika students) rather than a limited curriculum focus (classical studies).</td>
</tr>
<tr>
<td>The project is not seen as unique (all teachers make links to students’ background knowledge and experiences).</td>
<td>The focus is on evidence of outcomes rather than apparent similarities in teaching approaches.</td>
</tr>
<tr>
<td>A focus on big PD projects overshadows the potential for school-based professional learning.</td>
<td>Big PD projects and teacher research are integrated, with teacher research incorporated into PD plans.</td>
</tr>
</tbody>
</table>

The authors’ experience as graduate research supervisors suggests that while many school leaders are highly supportive of staff research, they tend not to treat it as an opportunity for school-wide learning and dissemination. Leaders can use Table 14 to evaluate how the benefits of teacher research and development might be spread across their schools.

In another study, connections were created by bringing parents into the classroom. The principal of a primary school in Cyprus worked with an external researcher to develop and evaluate a project in which teachers were asked to use parents’ life experiences as teaching resources. Parents born in a part of Cyprus that was being studied in social studies were invited along to share their knowledge and relevant artefacts. Parents working in hospitals and banks were invited along to share their knowledge and to be interviewed by students on topics relevant to their studies. As in the McNeight study, careful planning and training was involved, with the research team training parents and teachers to work as collaborators with complementary responsibilities. Compared with those in the control school, the students in the parent-partnership school made large gains in mathematics, Greek language, and the social sciences. Considerable variation in student achievement across classes suggested that parental involvement and resources were not used consistently by the different teachers. Both parents and students reported positively on the partnership venture.

Carefully designed out-of-school learning opportunities can also be used to bring funds of family and community knowledge into the classroom. Such opportunities can have significant and sustained impacts on student knowledge, attitudes, self-esteem, independence, and confidence. They can be critical to students’ long-term learning and can mitigate the effects

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372 Alton-Lee (2003), op. cit.
There is increasing evidence to show that, when indigenous perspectives are integrated into quality learning tasks, the achievement of indigenous students improves markedly. Lipka and Adams\textsuperscript{375} describe the success of a research and development initiative involving teachers, researchers, and Yup’ik elders. With the help of the elders, a series of culturally based mathematics curriculum modules was developed. Quasi-experimental studies across the Fairbanks urban school district and four rural school districts in Alaska found that the Yup’ik students performed significantly better in the culturally based modules, particularly in terms of their understandings of proof, properties, perimeter, area, and probability. As a result of this initiative, there was a reduction in the longstanding academic gap between Yup’ik and non-Yup’ik, non-Yup’ik benefited from the change from the usual curricula and texts, and students reported increased ability to transfer new knowledge to real-life situations.

School–community/iwi partnerships with a focus on the development and use of indigenous teaching resources are also an important element in some New Zealand school improvement initiatives. In the East Coast initiative known as Whaia te iti Kahurangi, a partnership was developed between Te Rùnanga o Ngàti Porou, the Ministry of Education, and local schools. An evaluation of this partnership in 2003 found a range of positive indicators in the primary schools involved, with year 2 reading vocabularies higher than the national average and improvements in writing and mathematics\textsuperscript{376}. These improvements appeared to be directly linked to effective professional development in literacy and numeracy and to stronger partnerships between school and iwi.

The evaluators reported:

Many schools used local knowledge and resources in their class programmes and organised activities with kaumatua and kuia so that students had a living understanding of their hapù, knowledge of whakapapa, and gained knowledge and skills through seasonal food gathering activities. Almost all the principals would like to see a Ngàti Porou ‘resource bank’ to allow them to incorporate more Ngàti Porou activities into their teaching programmes (p. 3).

There was little evidence of similar gains at secondary level. A reason for this may be that the secondary teachers did not receive professional development.

The importance of teachers learning how to use cultural resources in educationally rich ways can also be seen in the work of Te Kotahitanga. This intervention gives secondary teachers the opportunity to reflect on how they can make connections with students’ identities and culture and gives them specific guidance in pedagogies that are culturally responsive and that strengthen teacher–student relationships. With some variability, participating schools have seen significant improvements in senior secondary qualification levels in comparison with non-participating schools\textsuperscript{377}. The degree to which principals and others taking leadership roles in Te Kotahitanga have been proactive in setting goals for change, and effective in establishing

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\textsuperscript{374} See footnotes 364, 365, and 366.


the conditions required to strengthen school–home connections has been found to be critical to bringing about and sustaining improved outcomes for students.\footnote{Bishop, R., Berryman, M., Cavanagh, T., Teddy, L., & Clapham, S. (2006). \textit{Te Kotahitanga Phase 3: Whakawhanaungatanga: Establishing a culturally responsive pedagogy of relations in mainstream secondary school classrooms}. Final report to the Ministry of Education. Māori Education Research Institute, University of Waikato, Hamilton and Poutama Pounamu Research and Development Centre, Tauranga.}

7.4 \textit{Creating educationally powerful connections through homework}

Homework is the cause of more friction between school and home than any other aspect of education and becomes the prime battlefield when schools, families and communities view one another as adversaries ... End the battle and turn homework into a cooperative effort to promote student learning.\footnote{Cooper, H. (2007). \textit{The battle over homework: Common ground for administrators, teachers and parents} (3rd ed.). Thousand Oaks, CA: Corwin Press. [Quote is from back cover]}

Homework is often thought of as a school activity that just happens to be carried out in the home rather than the classroom. It can, however, be much more than this. There is compelling evidence that certain types of homework can connect students’ home and school lives in ways that have substantial educational benefits for families as well as for students. There is also convincing evidence that some kinds of homework may have negative effects.

In this section, we summarise the evidence on homework so that leaders can evaluate the extent to which their school’s policy guides teachers to plan homework activities that are likely to be productive.

7.4.1 Does homework work?

Homework is set by teachers for a range of purposes. As well as giving students the opportunity to practise skills and anchor new understandings in the memory,\footnote{Alton-Lee, A., & Nuthall, G. (1998). \textit{Inclusive instructional design: Theoretical principles emerging from the Understanding Learning and Teaching Project}. Report to the Ministry of Education. Wellington: Ministry of Education.} it can help students prepare for new learning, apply what has been learned to new contexts, apply a range of skills to an integrating task (such as a project), and facilitate child–parent/family interaction.

This section is based on an analysis of published studies that provide evidence of the impact of various types of homework on a range of student outcomes. From these studies, which reported on 152,110 students, 42 effects were calculated. The overall effect size for homework was .27, which we interpret as a small effect, but the effect sizes are very different for different types of homework. Figure 24 groups the homework findings into six categories of like influences. At the one end is a large positive effect (1.38) for teacher-designed interactive homework that involves parents; at the other is a moderate negative effect (−.24) for parental help with homework.

The evidence suggests that the effectiveness of homework depends primarily on the teacher’s ability to design, resource, scaffold, and provide feedback on developmentally appropriate homework tasks that support the learning of diverse students without unnecessarily fatiguing and frustrating students.\footnote{Alton-Lee (2003), op. cit.} For this reason, when discussing the educational benefits of homework, we need to distinguish between different types of homework. In the following two sections, we look in more detail at the most effective and least effective types.


\footnotetext[381]{Alton-Lee (2003), op. cit.}
7.4.2 What types of homework work best?

Across several different curriculum areas, particularly strong effects have been found for teacher-designed interactive homework. For example, in a study\(^\text{382}\) investigating the links between different types of homework and student achievement in mathematics—a study involving 18 highly diverse US elementary and secondary schools—the largest achievement gains were for mathematics homework that required students to demonstrate and discuss mathematics skills with a family member. This study also found that the practice of offering parents or students packets of mathematics games or activities from a lending library for use at home was particularly effective. More details on this important study are provided in Box 17.

**Box 17. Supporting parents at home to improve student outcomes in mathematics—new understandings about homework effectiveness**

For two consecutive years, Sheldon and Epstein\(^\text{383}\) examined the efforts of 18 primary schools and secondary schools to involve families in mathematics. They began by identifying three activities that were used by all the schools in the study and that were considered by staff to be most effective in improving student outcomes. These were: (a) providing parents with information on how to contact mathematics teachers, (b) scheduling meetings with parents of students who were struggling with mathematics, and (c) reporting to parents on student progress and problems in mathematics.

The researchers then compared the effectiveness of these activities with the effectiveness of activities that were designed specifically to involve families. What they found was quite different from what the teachers expected: the only family-involving activities that were consistently associated with improvements in students’ maths test scores were learning-at-home activities. In other words, what had the greatest impact was providing families with information and ideas about how to help their children with homework and how to engage in activities and discussions at home that would support their mathematics learning. The researchers also found that, for any activity, quality of implementation rather than frequency of use was more strongly associated with greater student achievement. After controlling for prior levels of achievement, the percentage of students who attained satisfactory mathematics scores was higher in schools that more effectively assigned homework that required parent–child interactions or offered mathematics materials to take home. The authors concluded: “Our results reinforce the fact that schools must advance beyond a belief that any parent involvement activity will produce important results. We found that rather than use of an activity, the reported quality of implementation was strongly and consistently associated with changes in levels of student mathematics achievement. That finding supports and extends previous research that shows that schools need to move beyond basic steps when they develop programs of partnership in order to affect student achievement test scores” (p. 204).

The positive impact of interactive homework on achievement has been reported across a variety of curriculum areas for both primary and secondary students in other US and European studies. Examples include: positive impacts on science grades\(^\text{384}\), maths test scores\(^\text{385}\), writing skills and language arts grades\(^\text{386}\), and second-language acquisition and literacy skills\(^\text{387}\). Carefully

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\(^{383}\) ibid.


designed interactive homework involving parents, where the parents have been shown how to assist their children, has been associated with marked achievement gains for both younger and older children, including those from low-socio-economic-status families. Recent New Zealand research on mathematics homework also finds a positive relationship with achievement when homework (a) directly relates to the curriculum, (b) promotes purposeful interactions between parents and children, and (c) provides materials and resources to help parents support their children’s learning.

The effectiveness of school-provided interactive activities, such as games and books, depends on parents’ understanding of the purpose of the activity, their role in the activity, and the way the activity builds on classroom work. A recurring finding is the effectiveness of interactive games that build children’s knowledge and understanding while also being fun for families.

Figure 24 also shows a large effect for teacher feedback on homework. Graded homework is included in the *Handbook of Research on Improving Student Achievement* as one of the 10 most effective practices for raising student achievement. Based on their meta-analysis, Marzano, Pickering, and Pollock include homework on their list of nine instructional strategies that are particularly influential on student learning. The explanation for this effect lies in the power of specific and timely teacher feedback. In his meta-analyses of the impact of many educational variables, Hattie has found effective teacher feedback to be one of the most powerful influences on student achievement. Hattie concludes that it is the teacher feedback, more than whether the work is done at school or the home, that makes the difference.

The high effect sizes for teacher comments and feedback on homework, teacher grading of homework, teacher-defined homework, and especially interactive homework signal the crucial importance of instructional design, quality, and pedagogical management. The teacher’s role in enabling parents to support their children with their homework is especially critical, given that parents can ‘help’ in ways that can have unintended, harmful effects.

### 7.4.3 What types of homework tend not to work?

Despite the educational potential of homework, a range of evidence indicates that it can be unproductive, frustrating, and even harmful—a concern highlighted from time to time in the media, both in New Zealand and overseas.

**Homework hell**

Homework—kids hate it, parents hate it, teachers hate it—why do we put up with it?

Figure 24 shows that parental surveillance and ‘help’ with homework can have small negative effects on student outcomes. This finding appears to validate recurring concerns about homework and to suggest that parents need more effective help in this area.

Some commentators have argued that the negative relationship between achievement and parental help is an artefact caused by low-achieving students receiving more help from their parents than high-achieving students. In our re-analysis of the Competent Children longitudinal study, however, the negative effects were found for high, average, and low achievers. In the case of reading, it is probable that children who become proficient readers at an early age are less likely to subsequently have bad homework experiences with their parents that impact...
negatively on achievement. Nevertheless, there is substantial evidence to show that some of the strategies parents use to help their children learn can negatively influence achievement, especially if their support conflicts with classroom practices, interferes with the child’s independence, imposes controls, and/or is critical in nature393.

Cooper, Lindsay, and Nye394 reviewed research in which parents complained of their feelings of inadequacy due to changes in pedagogy and curricula, lack of information about the curriculum, and lack of effective training in how to help. In several New Zealand studies395, well-intentioned parents have reported using a range of practices that are likely to make learning more difficult for their children, for example, asking them to read texts with difficulty levels that are well beyond the child’s actual reading level, covering up picture clues, giving answers instead of using prompts, focusing on word accuracy without attending to meaning, getting frustrated and impatient, criticising every mistake, giving tough and confidence-knocking feedback, growling, name-calling, mocking, punishing, and hitting. In a highly effective New Zealand reading literacy intervention, the researchers described how prior to the training, parents had struggled to help their children at home: “I tried to teach him but I got afraid I wouldn’t be able to cope. I would lose my temper and whack him.”396 Such comments have been a recurrent subtext in New Zealand studies. They shed light on the kinds of counterproductive practices that have been used by well-intentioned parents—practices that could well explain some of the negative associations that exist between parent help, homework, and student achievement, particularly for underachievers.

As children fall further behind, parents get more and more anxious, and a vicious cycle can set in, with ongoing negative impacts on the children’s achievement and self-confidence. Georgiou describes how parental anxiety manifests itself as a set of activities that he calls ‘teaching at home’397; the parent tries to behave as if they were the child’s teacher by helping with homework, examining the child, checking the child’s workbooks and so on. The greater the parents’ anxiety about their children, the more they ‘teach’ rather than support. Such ‘teaching’ exacerbates the child’s anxiety, struggle, and sense of failure. Clinton and Hattie398 also found that parental ‘surveillance’ of homework was negatively related to reading achievement.

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396 McNaughton, Glynn, & Robinson (1981), op. cit. (p. 18).


In our discussion of goal setting in Chapter 6, we discussed the difference between learning goals and performance goals. If students don’t know how to attain a goal (such as reading a page of text), performance goals can lead to misdirected effort and frustration. In situations of this kind, learning goals rather than performance goals should be set, because they focus the student on learning the skills and strategies (such as using picture clues and looking at the beginnings of words) that they need to achieve the performance goal. However, parents cannot set appropriate learning goals if they do not understand what their child needs for success. This is why parents need guidance from the teacher about how they can help. In the next section, and in Case 6, we consider evidence-based, user-friendly, and low-cost approaches to supporting parents to effectively help their children with their reading.

7.4.4 Guidance on good homework and homework policies

Epstein at the Center on School, Family, and Community Partnerships at Johns Hopkins University has led over a decade of research designed to develop and improve interactive homework. Her TIPS programme (Teachers Involving Parents in Schoolwork) is an interactive homework approach designed to provide parents with strategies to support their children’s learning and help children value their parents’ contribution. The focus of TIPS is on teacher agency and leadership in enabling constructive parent engagement. In addition to the enhanced student achievement cited earlier in this chapter, there is evidence that parents are highly appreciative of the opportunity to participate in the programme.

Epstein gives an example of a TIPS homework assignment that begins with a message signalling the student’s responsibility for initiating interaction and includes a home-to-school connection:

**Box 18. School-to-home-to-school homework communication**

Dear Family Partner,

My class is learning how to write fractions. This activity will let me show you what I know about fractions. We can talk about how we use fractions at home. This assignment is due ____________

Sincerely

Student’s signature ________________

The associated exercises include instructions on how to involve the family partner. For example: "Explain this example to your family partner. Show your family partner how you do this example … Ask your family partner … In the real world … Poll your family members or friends …" The homework ends with a feedback section for the family partner. For example:

Dear Parent/Family Partner

Please give me your reactions to your child’s work on this activity.

Write YES or NO for each statement.

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404 Epstein (2001), op. cit.
My child understood the homework and was able to complete it.

My child and I enjoyed the activity.

This assignment helped me to know what my child is learning in math.

Any other comments:

Parent/Family Partner’s signature

The TIPS approach has been used in primary, middle, and high schools. Features include:

- scheduling homework over a period of time so that families can plan time to do it;
- making meaningful links to the curriculum;
- ensuring the time demands of homework are appropriate;
- using only accessible materials or providing the necessary materials;
- making enjoyable and thoughtful student–family interactions part of every activity;
- planning carefully for both students and parents;
- including brief questions for students and parents about how the activity went so that teachers can understand how the homework works (or not) and respond quickly to improve it.

Since the evidence summarised in Figure 24 shows that homework can have either positive or negative effects on student outcomes, it is imperative that schools provide teachers with clear guidance about the qualities that make homework educationally effective. Box 19 suggests some guidelines:

**Box 19. Some guidelines for a policy on educationally effective homework**

1. Since interactive homework has particularly large positive effects, some homework activities, especially for younger children, should be of this type. To optimise the effectiveness of such activities:
   - the roles of the student and the family partner should be carefully planned;
   - parents should be aware of the objectives of the homework task;
   - parents should be given practical strategies, appropriate to the task and year level, with which to support their child’s homework;
   - feedback should be sought from the student and family partner about their enjoyment of the task and the student’s ability to complete it;
   - the teaching team should meet specifically to review feedback and use it to revise the task.

2. Tasks that require materials that are not likely be available in the home should be avoided, or the materials should be supplied by the school. This will ensure that all students can access the task.

3. Since timely, descriptive teacher feedback on homework is associated with positive educational effects, homework should be scheduled so that teachers can give students quality oral or written feedback.

Taken as a whole, the outcomes-linked research on homework suggests that homework has considerable potential to improve student outcomes, particularly for older students. That the findings are variable across the research literature is not surprising, however, given the likely mediating effects of quality, purpose, time allocated, family practices, supports available (for students and families), and opportunity costs (in terms of leisure, sport, fitness, and other activities). The potential is more likely to be realised when teachers form pedagogical partnerships with parents to ensure appropriate and effective homework tasks. Purposeful, interactive homework activities require open school–home communication that provides both teachers and parents with useful information.
7.5 Creating educationally powerful connections through school–home relationships

We have discussed particular ways in which schools can effectively involve parents and families with the classroom curriculum and homework. We now turn to other ways of building relationships that serve the interests of students.

For leaders, the growing evidence base relating to school–home connections is an important resource for ensuring that the limited time and money of both schools and families are invested in ways that promote valued outcomes. The importance of such knowledge is underscored by evidence that suggests that schools can waste a lot of time and effort trying to harness parental engagement in ways that have minimal impact on student outcomes. As one principal noted:

Real parental involvement in this school has been zilch. We have tried everything—reading mornings, maths mornings, free computer courses—some of these worked at first, but nothing really worked. They turn up for festivals and so on, but you can't get them involved in planning or curriculum sessions (pp. 25–26).404

Figure 24 helps us to identify the particular types of school–home involvement that are most powerful. In general, the largest positive effects were found when schools—usually in association with an external researcher—develop the capacity of parents to support their children’s learning through programmes that are designed to teach them specific skills (for example, the skills to promote reading and language development). Less powerful, but still important, is the quality of teacher–parent relationships: good relationships have a small positive effect, and poor relationships have a small negative effect.

7.5.1 Joint school–home interventions to improve student achievement and/or behaviour

In the high effect category were a series of two-pronged interventions designed to help parents support their children’s learning and assist teachers with in-class tutoring.405 At first, the researchers found that teachers were often unaware of the gains the children were making at home so were unable to support those gains at school.406 In some cases, it turned out that the students’ reading had improved greatly but their teachers had failed to recognise this and had continued to teach at the previous, much lower level. This led the researchers to expand the intervention by training teachers and other school tutors to complement the tutoring at home. With this further intervention, even stronger reading gains were achieved—showing the power of simultaneous interventions with both parents and teachers.

Also in the highest effect category are the interventions generated by the Poutama Pounamu Research and Development Centre (see Appendix 7.1). Figure 25 provides an overview of the approach taken by this Centre to the iterative development and evaluation of smart tools to support language, reading, and writing achievement in te reo Māori. These tools include a phonological awareness programme (TATA) that has resulted in effect sizes for reading achievement across six schools of 1.72 to 4.48; an intervention in which elders record te reo Māori on tapes to be used at home and school (RĀAP), resulting in effect sizes of .52 to 1.91 across 28 schools; an intervention designed to assist parents and tutors to help children with their reading (Tataari, Tautoko, Tauawhi), resulting in effect sizes of .70 to 1.01 across three schools; training for parents and whānau designed to help them address behavioural and learning difficulties (Hei Awhina Mātua), resulting in effect sizes across two schools of 1.36 for

behavioural improvements, with associated achievement improvements of .80 and .86; a 10-week programme in which elders in the community correspond with individual children in te reo Māori (Tuhi atu tuhi mai), resulting in effect sizes of .92 to 1.47 across six schools.

In a literacy intervention involving nine schools, parents and whānau completed two one-day training sessions with the research team. Professionals, family, whānau, and community were taught how to use the smart tools, and their learning was systemically evaluated. This evaluation helped the researchers refine the tools and ensure that the accompanying processes would support effective, independent use of the tools at home and at school. Researchers, teachers, and kuia emphasised that the success of school–whānau connections and the learning designed to support them was dependent on mahi tahi (collaborative) processes that fostered relational trust.

Central to the work of Poutama Pounamu is the focus on ako (reciprocity in learning and teaching). By making the learning of parents and teachers a deliberate focus—parallel ing the children’s learning—and by creating effective models for facilitating adult learning, the researchers have attended to the how of leadership. These findings about the importance of aligned interventions with parents and teachers further emphasise the important role that leaders have in promoting the kind of school–home and community learning that enables effective educational connections.

7.5.2 Programmes that enhance the capacity of families to support student achievement

Overall, interventions with parents were found to have a high effect, although less so than joint school–home interventions. The research reveals wide variation in the nature and scope of programmes designed to help parents support their children’s school learning. At the one end are complex, expensive, multi-focused interventions aimed at developing school–home
partnerships; at the other are small-scale, low-cost workshops aimed at helping parents support learning in specific curriculum areas.

Design characteristics that appear to be important include: having learning as a primary focus; providing parents with information and training (for example, modelling and reinforcing appropriate strategies) that enhance their skills in a specific curriculum area; supplying materials for use at home; helping families access resources such as books; raising families’ awareness of the benefits of working with their children; aligning school–home practices so that parents’ actions support school learning; raising parents’ expectations for their children’s achievement; and helping to propagate a supportive approach to parenting.

New Zealand has a tradition of research and development in literacy interventions involving parents. In the early 1980s, researchers collaborated to develop and evaluate an approach designed to help parents help their children with reading at home. This approach emphasised meaningful reading, contingent use of positive feedback, and the use of self-correction as a self-regulation strategy. Three tutoring strategies known as ‘pause, prompt, and praise’ had a powerful effect on the reading of low-progress 8- to 12-year-olds. Higher effects were obtained and improvement trajectories sustained when complementary in-school tutoring was included.

While large effects were obtained for this programme, it had a major weakness in terms of school–home involvement: the initial interventions were implemented and managed by external researchers without the active collaboration of schools. This may help explain why the gains were not sustained for many children: schools provided access to students and families but did not work with the external researchers to learn how to improve literacy teaching in the home and the classroom.

Reading Together has proven to be a cost-effective intervention to support parents in assisting their children with reading. This programme was initially developed by a New Zealand reading advisor who, as part of her postgraduate degree, subsequently evaluated it using a randomised control trial. The vignette in Box 20 describes the original intervention.

Box 20. Enhancing parental capacity to support student achievement

Reading Together, developed by Jeanne Biddulph, was an intervention that consisted of a series of four 75-minute workshops designed to give parents the knowledge and skills to help children with reading difficulties. By participating in this programme, parents were able to:

- develop basic understandings of the reading process and how children learn to read;
- learn strategies to constructively support their children’s reading at home;
- reflect on and discuss their experiences with their children’s reading;
- access and select reading material at an appropriate level from school and local libraries.

In developing and delivering the programme, particular emphasis was placed on the creation of educational partnerships that utilised the strengths of both family and school. Strategies included: (a) fostering genuine, collaborative, and non-threatening relationships between parents, children, and the workshop leader; (b) building a sense of community among parents, children, teachers, and local librarians involved in the workshops; (c) seeking

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parents’ views, by using humour, reassurance, and personal contact, and (d) addressing barriers to involvement by addressing parental transport and childcare needs.

Biddulph found that, after three months, students whose parents had participated in the training made significantly greater gains in reading achievement than a matched control group, some of whom were receiving ongoing specialist assistance at school. Follow-up data collected 12 months later showed that these gains were sustained over time, with the students continuing to improve their reading at a rate similar to that of the average reader. The effect size was .44 for gains on a standardised GAP test and 2.25 for gains in reading levels.

The programme was also found to have a range of additional positive effects, including improved student attitudes to reading, enhanced parental tutoring skills, parents using similar strategies with siblings, more positive family relationships, and ongoing high-trust school–parent relationships.

Over a period of two decades, through informal and professional learning networks, a specialist advisor supported school leaders to implement the programme in primary, intermediate, and secondary schools.

In 2004, based on research and development trials in two low-decile schools, the developer created a handbook for leaders and a set of resources to support wider implementation of the programme. This scaling-up tool, the workshop leader’s handbook, is a smart tool for leaders who want to forge cost-effective, school–home connections that will support children’s literacy development. See Figure 26.

The school leadership team (principal, deputy principal, and assistant principal) of one particular low-decile school made very effective use of this smart tool, and an evaluation of how they went about it was commissioned to inform this BES. Because the processes that this team used to build relational trust were so crucial to the success of the intervention, Case 5 explores them in greater depth.

In addition to establishing relational trust, other leadership practices highlighted by the evaluation included: involving the whole leadership team in the decision to adopt the programme; carefully aligning the programme with the school’s reading programme; balancing use of external expertise with developing staff capability; providing whole-staff professional learning as a means of achieving staff ownership and positive engagement with parents; responding to parental evaluation feedback; and putting strategies and supports in place to make such intervention business-as-usual within the school. The principal decided that, in the first instance, the programme would be monitored via the school’s regular assessment processes to avoid making implementation burdensome or heightening parents’ anxiety about their children’s achievement. A further reason for the impact of this programme is that it provides families with ongoing access to books through a relationship with the local librarian.

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410 ibid.
Need
Leaders of self-managing schools need access to a cost-effective approach to supporting parents to effectively assist their children’s learning.

Process

| Research and development by reading advisor as postgraduate research. Original randomised controlled trial in and between schools with pre-, post-, and long-term testing and student case studies. | Informal sharing of the programme through informal and professional networks. Spread to primary, secondary and intermediate school through word-of-mouth. Some schools continue to use for two decades. | Collaborative research and development trials of the original programme in two low-decile schools by original developer with experienced literacy specialist to inform development of a smart tool. |

Smart tool

**Workshop leaders’ handbook—underpinned by sound theories**

*Sound literacy theory and evidence:*
- informs content and sequencing of activities;
- anticipates and addresses misconceptions;
- summarises for leaders information to support professional learning;
- makes opportunities for alignment with school programme transparent.

*Adult education and learning theory informs design of the programme.*

*Theory and evidence regarding effective school–home partnerships inform the handbook.*

**Workshop leaders’ handbook—fit for purpose**

- Cost-effective for school and parents/whānau
- Is perceived by leaders to be viable and useful
- Enables student achievement gains in the large effect size range
- Guides leaders through organising and preparing workshops
- Provides supports for a carefully sequenced, reflective approach
- Attends to the practical aspects of managing the four workshops for parents/whānau
- Provides templates, samples, stories, poems, joke sheets, and additional resources to support parents and school staff
- Results in strengthened school–home relationships focused on student learning.

*Figure 26. A smart tool is developed to meet a specific need*
## 7.6 Connecting school and home to address antisocial behaviour

Antisocial behaviour in children and young people is an area of particular concern for families, schools, and communities. The long-term consequences of such behaviour are often serious:

Children identified during childhood as children who engage in high rates of antisocial behaviour are at considerable risk for a large number of adverse outcomes as adults. These adverse outcomes include unemployment, psychiatric disorders, alcoholism and other forms of substance abuse, early pregnancy and early fatherhood, drunk driving convictions and loss of licence, criminal offending, higher rates of domestic violence, separation and divorce, higher rates of injury and hospitalisation, and a shortened life expectancy (p. 3).413

Effective pedagogy is an early port of call for preventing antisocial behaviour and for intervening where students are at risk. Where behaviour is so antisocial that teaching strategies fail, contingency management procedures based on behavioural analysis research are often effective. If leaders know what contingency management procedures involve, they are able to seek appropriate help and understand how their teachers can assist the specialist leading the intervention. A resource is available that outlines these procedures and provides New Zealand examples and evaluative data.414

Leaders often need to manage the challenge that contingency management procedures can pose to the ‘commonsense’ of existing practice. For example:

The research on antisocial development indicates that the first and primary aim of intervention work with antisocial children will usually be to reduce the frequency of punishment (for both inappropriate behaviour and academic failure) to a level comparable with that being experienced by normally developing age-mates—and to accomplish this as quickly as possible. This is because excessive punishment (and failure) is one of the main drivers of antisocial development (pp. 3–4).

An approach of this kind requires positive and trusting relationships between the child, the child’s parents, and the teacher. Such relationships require a systematic, knowledgeable, and intensive intervention designed to develop prosocial behaviour. It begins with the teacher, guided by a specialist, carrying out careful observations to assess:

- what the child can do (that is, the skills that the intervention will build upon);
- what the child cannot yet do;
- the environmental conditions that reinforce and maintain antisocial responses;
- the conditions that hinder or prevent acquisition and mastery of the prosocial skills and academic skills that are critical for future development (p. 158).

The contingency management procedures are introduced and monitored by a trained specialist who assists teachers in:

- selecting specific behaviour-change goals;
- teaching skills that the child needs in order to achieve these goals;
- identifying rewards (for example, small privileges) that will give the child an incentive to achieve the goals;
- using a small, predetermined penalty (for example, a three-minute time-out or the loss of a privilege) for antisocial behaviour;

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414 Ibid.
carefully monitoring and recording the child’s achievements and antisocial responses from hour to hour (p. 4).

Church highlights the importance of explicitly teaching antisocial students the skills they need and of integrating them into the peer group through a structured process in which everyone is aware of the goals and helps the students practise the desired behaviours in the context of everyday peer interactions. An important message for leaders is that all staff must share responsibility for monitoring the target student’s behaviour throughout the school day and ensuring consistency in their approach.

The parents’ part of the intervention involves them learning how to:
- monitor their child’s whereabouts and behaviour;
- participate actively in their child’s life;
- use encouragement, praise, and rewards to manage their child’s behaviour at home;
- ensure that discipline is fair, timely, and appropriate for the misbehaviour;
- use effective, positive, conflict-resolution and problem-solving strategies (p. 4).

Hei Āwhina Màtua is a programme developed by the Poutama Pounamu Research and Development Centre to address concerns about teasing, taunting, stirring up trouble, shouting, yelling, not listening, and not following instructions. The range of collaborative problem-solving strategies utilised includes students learning to recognise the antecedents of particular behaviours, development of class and school-wide behaviour plans, and replacing a system of punishment for bad behaviour with rewards for good behaviour. An evaluation of pre- and post-programme data revealed high impacts, more instances of appropriate classroom and playground behaviour, and improved reading and writing in te reo Màori. The researchers concluded that factors crucial to the success of the programme included: a kaupapa Màori approach to ownership and control; direct student involvement; cross-generational, marae-based delivery; a school-wide approach to implementation and evaluation that involved parents and whànau; and a continuing research and development process for refining tools and training materials.

7.7 The need for teacher engagement and development

The pivotal role of teachers—in terms of their understanding and involvement—is a recurrent theme in the research on the impact of school–home interventions. Without teacher involvement, schools struggle to alter pedagogy, curricula, and behaviour management processes in ways that will sustain the gains from a school–home initiative. Leaders must carefully plan how the lessons of the initiative will be integrated into school and classroom practices.

If their involvement is to be productive, teachers need appropriate support and professional development. Mercado reviewed a range of studies that highlighted how important it was for teachers to be open-minded and reflective when working with diverse students and their families:

What teachers know about the lives of children outside of school affects their pedagogical practices. Inquiry needs to become a common pedagogical practice. In the light of the diversity that is inherent in all classrooms, having the means to construct knowledge about differences among learners may be more important and less problematic than having information on learners in pre-packaged forms (p. 690).

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There is a body of evidence showing that many New Zealand teachers inadvertently bring deficit thinking to their understanding of cultural difference. There is also evidence that pre-packaged information about ‘other cultural groups’ or ‘other people’s children’ in teacher education can contribute to stereotyped teacher views that impede the effective teaching of diverse students. The increasing diversity of New Zealand students in terms of ethnicity, language, mix of heritages, recency of immigration, and family structure means that teachers need to understand a wider range of families and cultural contexts. Since teacher understanding is so important, leaders need to ensure that the work done by cultural brokers, such as visiting teachers and community workers, does not usurp the role of the teacher.

The Flaxmere Project was a large-scale intervention involving the families of children in low-decile schools on New Zealand’s East Coast. It aimed to address a shortage of educational resources in homes (including access to computers) and to increase understanding of the work of schools. This three-year schooling improvement initiative was designed to “introduce the language of schooling into the homes” by involving parents in their children’s education in order to improve student outcomes (p. 5). The project consisted of numerous strategies, ranging from instructional activities in numeracy and literacy through to attitude and social skills development. The main strategies were provision of computers in homes, before- and after-school homework centres, and use of home–school liaison persons (HSLPs) to implement many of the activities.

The evaluators attributed the Flaxmere Project’s comparatively low impact on student outcomes to its focus on families and on activities outside the classroom and a consequential failure to gain the support and involvement of teachers. From the outset, teachers felt that the project was outside their sphere. It was not until the third year that they understood the purpose of the project and the role of the HSLPs. They then began to experience some benefits. (For example, they said that HSLP feedback about their students’ home lives had altered how they saw them in the classroom.) The evaluators concluded that the future of the Flaxmere Project should be aimed specifically at finding ways to help the teachers capitalise on the major family and child changes and to convert these positive attitudes into enhanced achievement.

Several positive examples of the use of cultural brokers, where they collaborate with rather than supplant the role of teachers, are available. For example, the elders who acted as school–home liaison workers in the highly effective literacy project developed by the Poutama Pounamu Research and Development Centre supported both teachers and parents at different stages of the process. Cultural brokers who mediate between schools and recent-immigrant and refugee families have contributed to improved school–home communications, relationships, and student outcomes for these groups.

7.8 Gaps in research and development

Our meta-analysis revealed that all the highest-impact interventions were informed by cycles of research and development (R & D) that optimised their usefulness and effectiveness.

From an R & D perspective, the positive story of this chapter is that school leaders wanting to build better, more productive relationships with their community can turn to a worthwhile evidence base for effective strategies. With the exception of homework practices, strategies can be found that have been developed and evaluated in New Zealand. In most cases, the R & D has been conducted by universities and schools working collaboratively; in others, individual teachers have used graduate study opportunities to develop strategies for promoting effective school–home partnerships.

This means that school leaders do not have to start from square one or engage in blind trial and error when seeking strategies to engage parental help with reading, address behaviour problems, ease transitions for refugee or immigrant students, or increase the educational impact of homework. Given the depth and complexity of the knowledge that underpins effective school–home strategies—and the possibility of negative impacts—it is neither effective nor efficient for schools to address these challenges on their own.

From an R & D perspective, the negative story of this chapter is that there is little in the New Zealand system to ensure that school leaders, teacher educators, and policy makers are able to access and use this knowledge base. Pasifika students may not be benefiting from powerful curriculum change of the kind described in McNeight’s study, parents may not know how to effectively help a child who is struggling with reading, and schools may not know how to develop homework policies that actually work, even though New Zealand evidence is available about how to address each of these challenges. This evidence may be inaccessible if those with the understanding have moved on, if funding has dried up, or if there is no continuing, expert-informed R & D adapting and refining strategies for different contexts and different groups of students.

Our analysis in this chapter identifies a number of major areas where new R & D would be of value to school leaders. Homework policy and practice is one of these. Given the evidence that homework, when informed by R & D, can have a high positive impact and, when not, may have a negative effect, there is a case for a national strategy to develop and trial quality homework policy and practice. R & D is needed on initiatives to forge educationally powerful connections between English-medium schools and whānau, iwi, and communities. R & D is needed to show how schools can draw on school–industry links in ways that impact positively on student outcomes. O’Sullivan422 highlights the potential value of such relationships but warns that there is a risk they may compromise educational purposes. R & D is also needed on how electronic media and the Internet can mediate effective connections between schools and homes, whānau, and communities.

Even where there are powerful examples of R & D, it can be hard to find relevant expertise within the research sector. We found, for example, that there was a dearth of published or recent, accessible reports relating to school–home interventions using contingency procedures of the kind described by Church423 (see section 7.6). The challenges posed by antisocial behaviour in schools merit wider R & D and greater support from expertise in the tertiary sector.

Research has also paid little explicit attention to the role of school leaders in mediating educationally powerful connections with family/whānau and communities. Case 5 indicates how useful such research can be in terms of providing practical support for leaders in their work.

7.9 Summary

The purpose of school–home involvement is to connect in-school and out-of-school learning in ways that will support valued outcomes for students. If effective connections are to be developed, teachers need to value the educational cultures of their students’ families and communities, and parents need to learn about and value the educational culture of the school. The principle of ako—reciprocal learning and teaching—is therefore fundamental to developing connections that work.

Making connections is part of good pedagogy. Evidence from a variety of contexts shows that effectively integrating community resources into lessons can lead to major gains in achievement, enhanced learner identities, and reduced disparities across different curriculum areas. What is needed is pedagogical leadership that is committed to creating connections between schools and family, whānau, and communities—connections, that is, to the core business of teaching and learning.

Where the gap between the educational cultures of home and school is wide, bridging it requires careful planning on the part of teachers. Large effects have been obtained for units of work in which students mediate the use of community resources, parents contribute to units, and curriculum resources are based on indigenous knowledge. There is evidence that research and development can play a significant role in developing curricular/teaching resources and practices that promote strong links to the communities of diverse learners.

Although most parents attempt to help their children with reading, this can be a frustrating and negative experience for both parents and children. This chapter has illustrated how brief, well-designed interventions to support parents can have dramatic, positive impacts on students’ achievement and their enjoyment of literacy. Further, such interventions can counter the adverse effects associated with parent help, negative controlling, and (to an extent) lack of parental involvement. Effective strategies have been developed for both English- and Māori-medium literacy.

Homework is educationally beneficial when it is properly integrated into lessons and receives timely teacher feedback. Carefully planned homework that includes activities that require student–caregiver interaction is especially powerful. There is need for leadership in the whole area of homework: particularly in reviewing and developing homework practices (especially for young children) to ensure that it is not actually harmful, that time spent on homework is beneficial, and that effective supports are available for parents.

Ensuring that policies and practices promote productive parent involvement and good teacher–parent relationships is an important leadership responsibility. The negligible effect obtained in this meta-analysis for teacher–parent interactions suggests that such interactions are often a response to problems rather than proactive engagement in support of student success. The finding that large effects are associated with proactive strategies designed to establish good school–home relationships signals an alternative approach. Workshops for parents and students that are designed to encourage young people to aspire to tertiary study and to support their planning have been found to be very effective.

There are helpful messages that schools can give parents and communities about the ways in which they can support their children’s learning. These include the importance of high aspirations, providing encouragement, communicating about school, getting involved with the school, supporting homework, and providing emotional and other support. All these can have continuing, small-to-moderate effects on student outcomes. Early access to a computer at home
makes a difference to achievement, over and above the effects of family income and mother’s education. Leaders can also communicate to parents that unhelpful ‘help’ with homework and surveillance are associated with poorer outcomes.

No matter what the strategy, teacher attitudes and skills are crucial for its educational effectiveness. Parents will not come into the school and teachers will be reluctant participants if the level of mutual trust is low. Building respectful relationships—which may involve challenging disrespect (on the part of either teachers or parents)—is part of any leader’s work. In the next chapter, we say a lot more about the relationship-building skills needed for developing school–home partnerships that will serve the education of students. Case 5 illustrates these relationship skills at work in the context of a school–home literacy project.
Appendix 7.1 Source studies in the meta-analysis informing this chapter

1. High effect on student outcomes

Joint parent/whānau and teaching intervention

Thirteen analyses involving 232 students were derived from the five reports and the literature review that informed this category. Nine analyses focused on literacy, one on writing, two on student behaviour, and one on mathematics.


Teacher-designed interactive homework with parents


Strategy to access family and/or community funds of knowledge


Note also the BESs focused on teaching, available via www.educationcounts.govt.nz/goto/BES:


For supplementary Australian evidence, see:


Teacher feedback on homework


Parent intervention


2. Moderate effect on student outcomes

**Parent involvement**


**Supplementary studies**


Simon, B. (2000). *Predictors of high school and family partnerships and influence of partnerships on student success.* Unpublished doctoral dissertation, Johns Hopkins University, Baltimore. (Note: Simon used beta coefficients to measure unique effect; accordingly, we were not able to include these findings in the meta-analysis, but they provide strong evidence for specific effects.)

3. Small effect on student outcomes

**Parent–child communication about school**


**Supplementary study**

Simon, B. (2000). *Predictors of high school and family partnerships and influence of partnerships on student success.* Unpublished doctoral dissertation, Johns Hopkins University, Baltimore. (Note: Simon used beta coefficients to measure unique effect; accordingly, we were not able to include these findings in the meta-analysis, but they provide strong evidence for specific effects.)
**Parent volunteering in school**


**Family-level intervention**


**Good teacher–parent relationship**


**Parent support for homework**


Supplementary Study

**Computer in the home**


**Homework—general effects**


**Time spent on homework**


**4. No effect on student outcomes findings**

**Parent role in governance**


**Supplementary studies**


Griffith, J. (1997). Linkages of school structural and socioenvironmental characteristics to parental satisfaction with public education and student academic achievement. *Journal of Applied Social Psychology, 27*, pp. 156–186. Note that Griffith published an earlier analysis in which he reported a positive association between parental involvement in school governance and student achievement, but this later re-analysis of the same data found no association.

**5. No or weak negative effect on student outcomes**

**Teacher–parent interactions**


**Homework surveillance**


**Supplementary Study**


**6. Small negative effect on student outcomes**

**Parent help with homework**


**Teacher–parent relationship less than good**


Appendix 7.2 Approach to calculation of effect sizes

When analysing the studies selected for Chapter 7 (Appendix 7.1), our particular interest was the nature and magnitude of the impact of school–home connections or homework practices on student achievement. In all these studies, standardised tests or overall class grades were used as the measure of achievement, not one-off, teacher-generated assessments. Desirable outcomes included grade achievement or improvement and a range of cognitive effects.

Educational impact was judged from effect sizes reported in the studies or calculated from other statistical data provided. If the data did not allow effect sizes to be calculated, studies with important outcomes-linked evidence were included in the table and described in the chapter. When computing effect sizes, either of two transformation formulae were used, depending on the statistical data available.

There are two major families of effect sizes. One is based on statistics that indicate proportion of variance explained by a relationship (for example, correlations, analysis of variance). The other is based on comparing the difference in mean scores between groups or times. When the authors of a study have not provided effect sizes, the analytic approaches required to determine an effect differ depending on the type of data provided.

1. **Cohen’s d**

\[ d = \frac{X_1 - X_2}{s_{pooled}} \]

2. **Using r coefficient**

A correlation is a measure of linear relations between two variables. While the mean score may be different for each variable, the patterns of high and low scores can be compared. The greater the similarity in the patterns, the greater the correlation. When a correlation is squared, the result is the proportion of variance explained by the linear relationship. Finding the effect of a linear relationship between variables involves squaring the correlation and determining its ratio out of 1.

Formula 1 is applied to Pearson’s \( r \) in situations where **one** group completes **two** measures (for example, pre-test and post-test). This formula requires that both measures involve the same number of people.

Cohen’s \( d \) from repeated measures from a single group: \[ d = r / \sqrt{1-r^2} \] \hspace{1cm} (1)

Formula 2 is used in situations where **two** independent groups complete the **same** measure or test (for example, a common test at the end of an intervention). This formula requires that both groups have the same number of people.

Cohen’s \( d \) from measures from two independent groups: \[ d = 2r / \sqrt{(1-r^2)} \] \hspace{1cm} (2)

In this case, \( d \) is double what it is in formula 1 because measures come from two independent groups.

3. **Using residuals**

An alternative to using standardised beta weights or the proportion of variance accounted for is to calculate Cohen’s \( d \) on residuals. What this means is that \( d \) is calculated **taking into account the variability explained by other variables**. For example, if we have information on parental help with reading homework together with information on variables that have been found to be associated with differences in achievement in reading or comprehension (such as maternal qualifications and family income), we can isolate the effect of parental help from the effects of the other variables. This is done by fitting a linear model (ANOVA), where achievement in
reading or comprehension is regressed on maternal qualifications and family income. The model is used to predict each student’s achievement in reading or comprehension, based on maternal qualifications or income. Next the residuals—the differences between actual and predicted scores—are calculated; these represent the variability in student achievement that is not explained by maternal qualifications or family income. Cohen’s $d$ for parental help with reading homework is then calculated on these residuals and represents the effect of parental help with reading homework once maternal qualifications and family income have been accounted for.

This approach is preferred when it is anticipated that much of the variability in outcomes (achievement in reading or comprehension) is due not to the intervention itself (parental help with reading) but to another variable that is strongly associated with the effectiveness of the intervention (maternal qualifications or family income). An effect size calculated in this way can still be compared with one that has been calculated on raw scores, but $d$ calculated on raw scores is likely to be larger.
References

Note: All Best Evidence Synthesis Programme publications can be accessed at www.educationcounts.govt.nz/goto/BES


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**School Leadership and Student Outcomes: Identifying What Works and Why: Best Evidence Synthesis Iteration** 283


Glossary of Māori terms

Ako  
Teaching and learning, understood as a single, reciprocal process

Hapū  
Sub-tribe

Hui  
Meeting, gathering, usually with a specific kaupapa

Iwi  
People, nation, tribe

Kaiako  
Teacher, instructor

Kanohi ki te kanohi  
Face to face

Kaumātua  
Elder, old man or woman, adult

Kaukapapa  
Purpose, agenda

Koro  
Male elder, old man, grandfather

Kuia  
Female elder, old woman, grandmother

Kura  
School

Kura kaupapa Māori  
Māori-medium school with an identifiable philosophical base (e.g., Te Aho Matua)

Kura whānau  
The support network of families and extended families associated with a school

Ngāti  
Prefix denoting tribe

Pākehā  
New Zealand-born non-Māori, especially those of European descent

Pāngarau  
Mathematics

Panui  
Reading

Pōwhiri  
Formal welcome or opening ceremony

Taonga  
Prized possession, treasure, inheritance

Te Aho Matua  
Literally, the central thread; the philosophical statement that guides the operations of many kura

Te Kotahitanga  

Te reo Māori  
The Māori language

Te reo Māori me ōna tikanga  
Māori language and customs

Tikanga  
The usual and accepted procedure or way of doing things; protocol

Tuheitia  
Writing

Tumuaki  
Principal, head teacher, leader

Whakapapa  
Ancestry, genealogy

Whānau  
Family, to be understood in a much more encompassing sense than the nuclear family; network of mutual supports and obligations

Whanaungatanga  
Sense of kinship, family, belonging

Mo ngā tamariki, kia rua ngā reo. Ko te reo o ngā mātua tipuna tuatahi, ko te reo o tauiwi tuarua. Kia ōrte te pakari o ia reo, kia tu tangata ai ngā tamariki i roto i te ao Māori, i roto hoki i te ao o tauiwi.

I runga i tēnei whakaaro, kia tere pakari ai te reo o ngā tamariki, me whakahaere ngā mahi katoa o te kura i roto i te reo Māori. Tae atu ki te hunga kuhu mai ki roto i te kura, me kōrero Māori katoa, i ngā wā katoa.

Kura kaupapa Māori, therefore:

• respect all languages;
• expect full competency in Māori and English for the children of the kura;
• affirm that total immersion most rapidly develops language competence and assert that the language of the kura be, for the most part, exclusively Māori.

Te Aho Matua o ngā Kura Kaupapa Māori.

English interpretation by Dr Kāterina Te Heikokō Mataira