School Leadership and Student Outcomes: Identifying What Works and Why

Best Evidence Synthesis Iteration [BES]

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Executive Summary
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

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While recognising that the development of a best evidence synthesis is a collaborative undertaking based on scoping and national guidelines developed by the New Zealand Ministry of Education and incorporating contributions from many others with relevant expertise, Viviane Robinson, Margie Hohepa, and Claire Lloyd assert their moral right to be recognised as the authors of this work.

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Executive summary
*Tū rangatira—toi ākonga*

There is a widespread belief among politicians and members of the public that school leaders make a critical difference to the quality of schools and the education of young people. This synthesis confirms that school leaders can indeed make a difference to student achievement and well-being. It identifies, explains, and illustrates some of the specific ways in which they can do this. Its findings can be used by readers in their own contexts to support and develop the qualities of leadership that will enhance student success.

The work reported in this executive summary is part of the Ministry of Education’s Iterative Best Evidence Synthesis (BES) Programme, a programme that seeks a greater understanding of the relationships that exist between selected aspects of the education system and a range of student outcomes. In this synthesis, the focus is on the complex relationship between educational leadership and student outcomes and on uncovering the particular leadership dimensions that are crucial for improving student outcomes in both English- and Māori-medium schools.

The literature on educational leadership is substantial, but only a small part of it focuses on the relationship between leadership and student outcomes. The synthesis draws evidence about this relationship from three broad sources: (a) assessments of the direct and indirect impacts of leadership on student outcomes, (b) descriptive accounts of the role played by leadership in effective interventions into teaching and learning, and (c) research on the links between leaders’ knowledge, skills, and dispositions and student outcomes.

We begin this executive summary by introducing the key challenges that educational leaders in New Zealand face. This is followed by a brief review of the methods used to identify the links between school leadership and student outcomes. We then discuss the dimensions of leadership that we derived from our analyses of the evidence (both direct and indirect) linking school leadership with student outcomes. We provide a brief summary of the main findings of our meta-analysis of the evidence about the impacts on students of various school–home connections. We follow this with a discussion of the kinds of knowledge, skills, and dispositions implied by the dimensions of effective leadership. We conclude with some of the main messages of this BES.

Our shared challenges

A range of outcomes data is provided in Chapter 2. This includes data relating to achievement, student safety, and secondary school qualifications. The chapter focuses on four challenges for school leaders and those who support their work.

A range of international surveys (for example, PISA, TIMSS, and PIRLS) shows that we can have some pride in our education system: the mean test scores of New Zealand 15-year-old students in reading, science, and mathematics are generally high. Unfortunately, the data also reveal a disconcerting disparity between low and high achievers, particularly in reading literacy. Recent surveys also highlight challenges in relation to the achievement of students in mathematics, science, and reading literacy at primary level. The system is underperforming for some of our most rapidly growing youth populations, including Māori and Pasifika.

Since there is very wide variance of achievement in our schools, the fundamental challenge for educational leaders across the system is to raise achievement and reduce disparity in ways that prepare all of our students for the future.
A second challenge is to markedly improve educational provision for, and realise the potential of, Māori students. Recent national data suggest that Māori-medium schools are better serving Māori than English-medium in some subjects at senior secondary level despite the complex challenges of a language revitalisation context.

A third challenge is to strengthen valued social outcomes, including the ability of students to relate well to each other.

A fourth challenge is to adjust our self-managing school system to ensure we have sufficient effective leaders with the time and support they need to meet the first three challenges.

Methodology

Chapter 3, together with the introductory sections of chapters 4 and 5 and associated appendices, describe in more detail the methodology and strategies used to analyse the literature.

The methodology used in this BES defines leadership as a particular type of influence process. This influence can be direct, as when leaders interact with others, or indirect, as when they change the conditions in which people work. From this perspective, leadership is embedded within specific tasks and situations and distributed across people. As used in this BES, the term ‘leadership’ includes the influence of those with formally recognised positions (such as principal, senior or middle manager, school trustee, kaumātua/elder, or policy maker) and the influence of those who exercise leadership informally.

The analysis of the evidence is structured around three key questions about the links between leadership and student outcomes:

1. What impacts do different types of leadership have on student outcomes?
2. What is the role of leadership in interventions and programmes that improve student learning in New Zealand contexts?
3. What knowledge, skills, and dispositions do school leaders need to engage in the practices identified in questions 1 and 2?

A search of New Zealand and international databases located the published evidence relevant to the above three questions. It comprises 134 studies, of which 61 are from New Zealand. While only 27 of the 134 quantified the relationship between leadership and student outcomes, a further 100 or so provided rich qualitative evidence about aspects of leadership. These include 31 New Zealand studies with a focus on the role of leadership in leading the improvement of teaching and learning (Chapter 6). In addition, Chapter 7 is based on 21 international and 16 New Zealand studies about the impact of various types of school–home connection on student academic and social outcomes. The remainder of the 134 studies comprise the 25 international and 13 New Zealand studies that provided the evidence base for Chapter 8. Two main strategies were used for analysing this evidence base.

The forward mapping strategy depicted in the upper portion of Figure 1 was used to address question 1. The strategy is called ‘forward mapping’ because it involves starting with a measure of leadership and then tracing its links to student outcomes. This strategy was used with 27 studies that included measures of leadership and some type of student outcome. A meta-analysis of the studies was undertaken to estimate the impact of different types of leadership on academic and social outcomes.
In one analysis, we compared the impact of two well-known theories of leadership: transformational and pedagogical. Transformational leadership has its origins in the business literature and emphasises such qualities as vision and the ability to motivate and inspire loyalty, commitment, and effort. Pedagogical leadership has a stronger focus on leader involvement in teaching and learning. In a second analysis, we sought to identify the impact of particular leadership dimensions on student outcomes. Five dimensions were derived from a methodologically strong body of evidence. We then calculated an estimate of the mean effect size for each of these dimensions.

There is little New Zealand research that directly links school leadership with student outcomes. This raises the question of whether we can be sure that the leadership dimensions that emerged from our forward mapping analyses are appropriate in the New Zealand context, including in Māori-medium schools. Given this lack of direct evidence, the indirect backward mapping strategy outlined in the lower part of Figure 1 was adopted to answer question 2. This strategy used as its starting point studies of interventions that had positive student outcomes. Inferences were then drawn from the descriptive evidence about the role played by leadership (often widely distributed) in creating the conditions that produced those outcomes. This systematic, qualitative analysis of leadership in New Zealand schools and classrooms produced six dimensions. Because the evidence was qualitative, we were unable to quantify the impacts of these dimensions on student outcomes.

A further meta-analysis of 37 studies, including 16 from New Zealand, was carried out to build upon the forward and backward mapping to identify for leaders what makes a bigger difference in school–home connections.

Figure 1. The two main strategies for detecting the impact of leadership on student outcomes
**Impact of types of leadership**

The important question is: ‘What is the impact of various types of leadership on student outcomes?’ This question was addressed through two meta-analyses of research on leadership.

In the first, we compared the impact of transformational and pedagogical leadership. This analysis showed the impact of pedagogical leadership to be nearly four times that of transformational leadership. Transformational leadership has traditionally emphasised vision and inspiration, while pedagogical leadership has emphasised the importance of establishing clear educational goals, planning the curriculum, and evaluating teachers and teaching.

Given transformational leadership’s emphasis on relationships and pedagogical leadership’s emphasis on educational purposes, one could argue that both theories are needed. It is certainly important not to set up an artificial opposition between the two. Indeed, transformational leadership is increasingly incorporating elements that are specifically educational, and pedagogical leadership is attending to relational matters such as consensus on school goals.

The second meta-analysis involved a more detailed examination of the impact on student outcomes of particular leadership dimensions. We derived five such dimensions from the same studies as were used in the first analysis. Importantly, relationship and organisational aspects were not treated as discrete—each dimension encompasses both.

Figure 2 shows the relative impact of each of the five dimensions on student outcomes. The effect size‡ of dimension 4 (Promoting and participating in teacher learning and development) is twice that of any of the other dimensions. Dimensions 1 (Establishing goals and expectations) and 3 (Planning, coordinating, and evaluating teaching and the curriculum) have small-to-moderate effects. Dimensions 2 (Resourcing strategically) and 5 (Ensuring an orderly and supportive environment) have small effects.

Three of the five dimensions derived using the forward mapping strategy share similarities with those derived from our backward mapping analysis of studies containing indirect evidence of leadership impact. These three dimensions focus on leadership involvement in goal setting, resourcing, and teacher learning.

Three further dimensions were derived from the analysis of indirect evidence of leadership. These focus on the creation of educationally powerful connections; engagement in constructive problem talk; and the selection, development, and use of smart tools.

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‡ An effect size is a standardised measure of the strength of relationship between two variables. In this BES, the variables are typically either categories of leadership practices or interventions and student achievement. The larger the effect size, the greater the influence of the practices or intervention on the desired outcome. Following Hattie (2009), we use the following lower boundaries as a guide when interpreting effect sizes: .2, small; .4, medium; .6, large. Based on his research, Hattie has found the average student gain to be .35 for a year of teaching in reading, mathematics, and writing. (See Chapter 5.)
Figure 2. Relative impact of five leadership dimensions on student outcomes

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establishing goals and expectations</td>
<td>0.42</td>
</tr>
<tr>
<td>2. Resourcing strategically</td>
<td>0.31</td>
</tr>
<tr>
<td>3. Planning, coordinating and evaluating teaching and the curriculum</td>
<td>0.42</td>
</tr>
<tr>
<td>4. Promoting and participating in teacher learning and development</td>
<td>0.84</td>
</tr>
<tr>
<td>5. Ensuring an orderly and supportive environment</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Figure 3. Leadership dimensions
In Figure 3, the direct dimensions are numbered 1–5 and the indirect dimensions 6–8. Beside each is a saying in Māori, which is intended to capture its essence. The eight dimensions should not be viewed as a checklist but as aspects of the leadership landscape. All should be kept constantly in view though at any given time the focus is likely to be on particular dimensions as specific problems or conditions are encountered.

Our primary conclusion is that pedagogically focused leadership has a substantial impact on student outcomes. The more leaders focus their influence, their learning, and their relationships with teachers on the core business of teaching and learning, the greater their influence on student outcomes.

The leadership dimensions from direct evidence

1. Establishing goals and expectations: Whāia te iti kahurangi

This dimension is about the exercise of leadership through the setting and communicating of goals for teacher and student learning. The mean effect size for this dimension (.42) was second-equal highest. An effect of this magnitude can be interpreted as moderate and educationally significant.

Effective goal setting requires that leaders:
- establish the importance of the goals;
- ensure that the goals are clear;
- develop staff commitment to the goals.

Leaders establish the importance of goals by communicating how they are linked to pedagogical, philosophical, and moral purposes. They gain agreement that the goals are realistic and win collective commitment to achieving them. Establishing goals came through as particularly pertinent to Māori-medium settings. This is because important goals have clear linkages to wider philosophical and cultural purposes, particularly to Māori language and cultural regeneration.

It is clear that relationships are an important aspect of this dimension because leaders in high-performing schools tend to give priority to communicating goals and expectations, informing the community of academic accomplishments, and recognising academic achievement. There is also evidence that suggests that the level of staff consensus on school goals is a significant discriminator between otherwise similar, high- and low-performing schools.

To implement leadership practices linked to this dimension, leaders need to have an understanding of why goal setting is important and some knowledge of how goal setting works. Figure 4 outlines the conditions required, processes involved, and consequences of effective goal setting.

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There is evidence that the content of goals may be as important as the process of goal setting: leaders need to know what goals to set as well as how to set them. In high-performing schools, there was a stronger emphasis on academic goals, though this was not incompatible with a further emphasis on social goals.

2. Resourcing strategically: *Mā te huruhuru ka rere te manu*

Leadership is also exercised through obtaining and allocating material, intellectual, and human resources. As the word ‘strategically’ signals, this dimension is not about securing resources per se but about securing and allocating resources that are aligned to pedagogical purposes. At all levels of the education system, leaders play a vital role in working with teachers to identify and develop appropriate teaching and learning resources and in ensuring that these are readily available. The mean effect size for this dimension indicates that it has a small indirect impact on student outcomes. Identifying and obtaining assessment resources that are pedagogically and philosophically aligned to valued goals is a particular challenge for leadership in Māori-medium schools. For example, there are relatively few standardised assessment procedures available in te reo Māori and limited access to professional learning opportunities focused on Māori-medium assessment.

When identifying and obtaining resources, leaders in high-performing schools:
- use clear criteria that are aligned to pedagogical and philosophical purposes;
- ensure sustained funding for pedagogical priorities.

Leaders use clear criteria to identify and obtain resources that are aligned to pedagogical and philosophical purposes. They also strive to ensure sustained funding for pedagogical purposes by, for example, prioritising or rationalising expenditure. Alignment of resources extends to recruiting appropriate staff and developing the kinds of expertise needed to achieve important goals.

3. Planning, coordinating, and evaluating teaching and the curriculum: *Kia pai te whakatere i te waka*

This dimension is about leaders’ emphasis on improving the quality of teaching and the curriculum. The mean effect size obtained was the same as for Dimension 1, which should be interpreted as meaning that this set of leadership practices has a moderate and educationally significant impact on student outcomes. Leaders in high-performing schools are distinguished from their counterparts in otherwise similar, low-performing schools by their personal involvement in planning, coordinating, and evaluating teaching and teachers.
When planning, coordinating, and evaluating teaching and the curriculum, leaders in high-performing schools:

• promote collegial discussions of teaching and how it impacts on student achievement;
• provide active oversight and coordination of the teaching programme;
• observe in classrooms and provide feedback that teachers describe as useful;
• ensure systematic monitoring of student progress and use of assessment results for programme improvement.

4. Promoting and participating in teacher learning and development: *Ko te waka mātauranga, he waka eke noa*

Of all the dimensions derived from the meta-analysis, this dimension produced the largest estimated effect size. This means that this set of leadership practices has a large, very educationally significant effect on student outcomes. The practices involved in this dimension include participation in, as well as promotion of, formal and informal opportunities for teacher learning and development. Leaders can participate in teacher professional learning as leaders, as learners, or as both.

There are important differences on this dimension between the practices of leaders in otherwise similar, high- and low-performing schools. For instance, staff in high-performing schools report that their leaders work directly with teachers or departmental heads to plan, coordinate, and evaluate teachers and teaching. Such leaders are also more likely to provide evaluations that teachers find useful—and to ensure that student progress is monitored and assessment results used to improve teaching. Leaders who are actively involved in professional learning have a deeper appreciation of the conditions required to achieve and sustain improvements in student learning. This means they can discuss necessary changes with teachers and support them by making appropriate adjustments to class organisation, resourcing, and assessment procedures.

Leadership promotes teacher learning via communities that are focused on improving student success. To establish such communities, leaders may need to challenge or change cultures that are not focused on collegial discussion of the relationship between what is taught and what is learned.

Associated with effective professional communities is a strong sense of collective responsibility and accountability for student achievement and well-being. Improved student outcomes strengthen teachers’ sense of efficacy and collective responsibility and this, in turn, encourages them to greater effort and persistence. The result is a virtuous circle, in which teacher confidence and competence and student success are mutually enhancing.

When promoting and participating in teacher learning and development, leaders in high-performing schools:

• ensure an intensive focus on the teaching–learning relationship;
• promote collective responsibility and accountability for student achievement and well-being;
• provide useful advice about how to solve teaching problems.

5. Ensuring an orderly and supportive environment: *Ka tika ā muri, ka tika ā mua*

Leadership can facilitate the achievement of important academic and social goals by creating an environment that is conducive to success. An orderly environment makes it possible for teachers to focus on teaching and students to focus on learning. This dimension, derived from forward mapping studies, has a small mean effect size. The indicators for this dimension
include a focus on cultural understanding and a respect for difference; provision of a safe, orderly environment and a clear discipline code; and minimal interruption to teaching time. Other indicators include protection of staff from unreasonable parental and official pressures and early and effective conflict resolution.

The findings suggest that leaders of effective schools succeed in establishing a safe and supportive environment by means of clear and consistently enforced social expectations and discipline codes.

In such an environment, staff conflict is quickly and effectively addressed. One study found that the principal’s ability to identify and resolve conflict—rather than allow it to fester—was strongly associated with student achievement in mathematics. Differences in teacher and principal perceptions of the latter’s ability to identify and resolve conflict was also a significant discriminator of high- and low-performing schools.

When ensuring an orderly and supportive environment, leaders in high-performing schools:
- protect teaching time;
- ensure consistent discipline routines;
- identify and resolve conflicts quickly and effectively.

**The dimensions from indirect evidence**

**6. Creating educationally powerful connections:**

*Ehara taku toa i te toa takitahi engari he toa takitini*

This dimension is about creating connections—between individuals, organisations, and cultures—that have an explicit focus on student learning.

Leaders can encourage such connections by ensuring closer pedagogical and philosophical matches between what students bring to school and what happens to them in the classroom. This might involve finding out more about diverse students’ experiences in the school as a first step to improving teaching and learning. It might involve making changes to the school’s collective culture to connect more effectively with families/whānau and the community.

Pedagogical matches are facilitated when students experience continuity of content and practice as they move between programmes and classes. Leaders can also play a role in ensuring that students experience continuity as they move from one educational setting to another.

While relationships are embedded in every dimension, they are particularly significant when it comes to creating connections. Relationships can be a key to developing knowledge of, and respect for, individual and cultural identities. Relationships between adults need to be developed in ways that promote the achievement and well-being of students.

Leaders can create educationally powerful connections by:
- establishing continuities between student identities and school practices;
- developing continuities and coherence across teaching programmes;
- ensuring effective transitions from one educational setting to another.

**7. Engaging in constructive problem talk:**

*He kaha ki te whakahaere i ngā raruraru*

This dimension is about the ability to name, describe, and analyse problems in ways that reveal possibilities for school-based change. Leaders who engage in constructive problem talk describe problems in ways that invite ownership and commitment and can respectfully
examine how they and others might be contributing to a problem. A prerequisite for engaging is the ability to inquire into the theory that underpins the practice that needs changing.

Theories of action are powerful both because they explain teachers’ actions and because they shape how change messages are interpreted. By engaging teachers’ theories of action, leaders help teachers make their beliefs explicit and help them evaluate those beliefs in relation to the proposed alternative theory. Successful theory engagement requires a deep understanding of the factors that sustain current practice and, therefore, of the challenges involved in changing it. The New Zealand research literature that we reviewed provides strong evidence of the positive consequences of theory engagement for both adult relationships and student outcomes.

Leaders who engage in constructive problem talk:
• discover the reasons why teachers do the things they seek to change (engage teachers’ theories of action);
• lead discussions of the relative merits of current and alternative practice.

8. Selecting, developing, and using smart tools:

\textit{Ngā tapu ngaio. Whiria, mahia}

This dimension is about the ways that leadership shapes the teaching and learning environment by selecting, developing, and using tools and by establishing the routines for their use. By tool, we mean everything from whiteboards to classroom furniture, to software for tracking attendance and assessment data, to policy documents, to report forms. It is the role of leadership not only to select or develop tools but to ensure that the tools and associated procedures actually help the users achieve the intended purposes.

Tools are smart if they promote teacher learning about how to promote student learning. Such tools are based on valid theories concerning the activity they are intended to support and are designed to be easy to understand and use. A good report form is different from a good policy on reporting. But although they are quite different tools, they should share two common characteristics: they should be based on a valid theory and they should be well designed.

A smart tool used for the teaching of one group of students may not turn out to be smart when used with a different group. For example, the theory of language progression used in English-medium classrooms for teaching reading may not be valid in Māori- or Pasifika-medium classrooms.

Some tools are deemed fit for purpose only after considerable investment in research and development. Other tools, purpose-built by a particular school, warrant a far less formal research-and-development process, but leaders still need to ask and answer questions about the validity of the theories on which they are based.

Leaders select and design smart tools by:
• ensuring they are based on valid theories;
• ensuring they are well designed.

\textit{Creating educationally powerful connections}

Chapter 7 further investigates the importance of Dimension 7 by analysing the New Zealand and international literature on the effects on student outcomes of various types of school–home connection. The results of this meta-analysis are summarised in Figure 5. It shows that different types of parental involvement can have large, small, or even negative influences on student achievement.
Figure 5. Findings of a meta-analysis of research on the educational impact of making connections between schools, families/whānau, and communities

School leaders can build educationally powerful connections with families, whānau, and communities through teaching, through homework, and through school–home relationships. The role of leadership in making such connections is most important where the gap between the educational culture of the school and the home is wide. Particular kinds of school–family connections can have large positive effects on the academic and social outcomes of students, especially those who have been under-served or who are at risk. For example, positive effects are associated with curriculum units that access relevant community and cultural expertise and resources. Leaders can use educationally powerful connections and the diversity of the school community to resource the work of the school. Certain kinds of school–home partnerships can help to effectively address antisocial behaviour.

It is also possible for schools to invest considerable time, energy, and resources in engaging with families and communities in ways that have little—or even negative—impacts on student outcomes. For example, homework can support or undermine student achievement depending on how it is designed. Similarly, while most parents attempt to help their young children with reading, this can be a frustrating and negative experience for both parent and child. Positive effects are more likely to be associated with programmes that support parents with strategies for effective help.

Given that school–home connections can have anything from large positive to small negative effects, it is important that research and development inform the efforts of school, community, and policy leaders as they try to build connections that are educationally powerful.
The knowledge, skills, and dispositions involved in effective educational leadership

Appendix 8.1 integrates the two sets of leadership dimensions and describes the kinds of knowledge, skills, and dispositions embedded in them. There is very little research evidence available that directly explores the relationship between educational leaders’ knowledge, skills, and dispositions (KSDs) and student outcomes. Nevertheless, once we had established the links between the leadership dimensions and student outcomes, we were able to identify some research about the knowledge and skills that leaders require to engage in the dimensions. Through this two-step process, we established indirect connections between the four KSDs (see Figure 6) and student outcomes.

![Leadership knowledge, skills, and dispositions](image)

**Figure 6. Leadership knowledge, skills, and dispositions**

**Ensure administrative decisions are informed by knowledge about effective pedagogy**

Effective leaders have a deep understanding of theories and evidence about effective teaching and use this knowledge to inform their administrative problem solving in such matters as student grouping, teacher appraisal, resource selection, and teacher supervision.

**Analyze and solve complex problems**

Effective leaders are able to uncover and understand all the requirements surrounding a particular task or issue and integrate them to identify the best solution for that particular time and place.
**Build relational trust**

No matter how sound a leader’s pedagogical knowledge and problem-solving ability may be, their impact will be limited if relationships within the school are characterised by an absence of trust. In everyday, practical situations, effective leaders develop trust relationships by establishing norms of respect; showing personal regard for staff, parents, and students; demonstrating competence and integrity by modelling appropriate behaviour; following through when expectations are not met; acting in ways that are consistent with their talk; and challenging dysfunctional attitudes and behaviours.

**Engage in open-to-learning conversations**

Crucial to all the leadership dimensions are the interpersonal skills and values that enable leaders to identify and check their own and others’ taken-for-granted assumptions about themselves, other people, and the situation. To engage in open-to-learning conversations, leaders need the skills and values that will make it possible for them to respectfully give and receive the tough messages that are an inevitable part of the process of improving teaching and learning.

**Some key messages**

- Educational leadership is important. The big message from this BES is that the closer educational leaders get to the core business of teaching and learning, the more likely they are to have a positive impact on students. The dimensions provide a guide to the kinds of leadership that are linked to positive student outcomes. By explaining how and why each dimension contributes to such outcomes, we aim to put educational leaders in the position where they are able to use them effectively in their own settings. The BES describes some of the leadership knowledge, skills, and dispositions that underpin the identified leadership dimensions.

- Effective educational leadership requires in-depth knowledge of the core business of teaching and learning. It also requires detailed knowledge of the importance of effective school-home connections and how to foster them when the educational cultures of school and home are different.

- While educational expertise is a necessary condition for effective leadership, it is not sufficient; leaders must also build trust relationships if they are to engender and sustain improvements in teaching and learning. Leaders who show regard for others and treat them with respect, and are seen by them as competent and having integrity, are trusted. Such leaders can foster the levels of inquiry, risk-taking, and collaborative effort that school improvement requires.

- Leadership rather than leaders is what is needed. This is because it is unrealistic to expect any one leader to possess all the KSDs to a high level. What is reasonable to expect is that all New Zealand schools can access these capabilities either from inside or outside their school. This has implications for leadership development and assessment and for the development of tools to support leaders in this challenging work.

- Research on educational leadership has been more concerned with relationships between the adults in a school community than with the impact of leadership on student outcomes. This impact could be increased by more closely integrating leadership theories and practice with the evidence concerning effective teaching and learning.
1. A guide to this Best Evidence Synthesis Iteration

1.1 Purpose and audience

The central purpose of this BES is to “identify and explain characteristics of leadership in schooling that are linked to improving a range of desired outcomes for diverse learners in English- and Māori-medium schooling.” The term ‘leadership’ in this statement is inclusive of principals, other senior managers, middle managers, teacher leaders, and school trustees.

The relationship between school leadership and student outcomes is particularly important in the New Zealand context because schools here operate much more autonomously than in most other educational jurisdictions. There is perhaps no other national education system that puts the governance of individual schools, including the employment of principals, in the hands of bodies that are largely parent elected. Also unusual is the extent to which schools operate as separate entities within a framework of legal requirements and accountability, funded at arm’s length, and not under the umbrella of an education district or a local body. When these administrative arrangements were established in 1989, responsibility for financial, human resources, and property management was added to the principal’s educational responsibilities. New Zealand demands a lot of its principals and their boards.

Given these system characteristics, it is particularly important for New Zealand to find out how school leaders influence student outcomes. It is also important to find out how the regulatory, policy, and community contexts in which our school leaders work influence the priority they give to engaging in the particular leadership practices that have greatest impact on student outcomes.

To anticipate what is to come, the big message of this BES is that leadership matters. Figure 7 summarises the types of leadership that can make a difference to outcomes for students. In the BES, we describe how we identified these types of leadership and illustrate how they work in practice. We go on to explain why they work by discussing the underlying principles, and we discuss and illustrate the leadership knowledge, skills, and dispositions that impact substantially on students, whether directly or indirectly.

The first audience for this BES is educational practitioners with leadership responsibilities and others with an interest in educational leadership. This means trustees, principals, other senior managers, middle managers, teacher leaders, facilitators and professional developers, and educational policy makers and analysts. As all teachers exercise leadership in various ways in the course of their daily work, this BES also has relevance for teachers who do not yet have official leadership responsibilities. Numerous leaders have had input into the content of this BES through the selection of writers, feedback on draft chapters, and participation in presentations of the in-progress findings.

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15 Each board consists of five or more elected trustees; the principal; a staff trustee, elected by staff; and, in secondary schools, a student trustee, elected by students. State-integrated schools—mostly Catholic and other, originally church-administered schools, as well as some special character schools (such as Steiner schools)—also have proprietor-appointed trustees. Boards can co-opt members, and many do, particularly when they lack particular expertise. Non-parents have been eligible for election since 1992, but few have offered themselves. Non-parents are usually members of boards through co-option or appointment.
16 The 1989 reforms were known as Tomorrow’s Schools, from the title of the publication that outlined the government’s response to the report of a taskforce charged with investigating the quality of school administration. Department of Education (1988). Tomorrow’s Schools: The reform of education administration in New Zealand. Wellington: Government Printer.
A second, very important audience is national and international scholars working in the area of educational leadership. There are numerous messages in this BES about how research can make a greater contribution to our knowledge of how leadership impacts on student outcomes. Feedback from members of the national and international research communities has ensured that this work meets the highest standards of scholarship. This will give practitioners assurance that the content is trustworthy.

### 1.2 Readers’ questions and comments

We encountered six recurring questions (or comments that implied questions) as we talked with educators throughout New Zealand. In this section, we list these questions and answer them. This gives us an opportunity to explain what a BES can and cannot offer and to signal some of the particular qualities of this BES.

**Is this BES about best practice?**

The BESs are about best evidence not best practice. Like any resource, they must be understood and interpreted before they can be used wisely in a particular situation. It is a mistake to think that this BES dictates or recommends best practice. There is no rule about what is best practice.
in any given situation. Knowledge of best evidence, however, is an excellent starting point for figuring out what might be good practice in a particular context. We say might because ideas about good practice always have to be tested. This BES should be understood as a resource—a resource that distils an enormous amount of complex information about how school leadership makes a difference to students. It is not a guidebook about how to run a school.

Why is it called best evidence? How is it best? Who says it is best?

This BES is a carefully compiled resource of what is currently known about links between school leadership and student outcomes. The term ‘best evidence’ should not be understood as a commendation of individual studies. Indeed, the studies we synthesised varied greatly in their quality. Furthermore, we have identified large gaps in the evidence needed to address particular questions about school leadership. ‘Best’ refers to evidence of what makes a bigger difference for diverse students and to the conclusions drawn from a synthesis of all the available research studies. The goal was to understand how these studies differed and to take those differences into account when drawing conclusions from all the available evidence. One should not judge the validity of a knowledge claim on the basis of who said it, but by interrogating the process by which it was arrived at. This includes examining the methods used to derive the findings.

What is best evidence today will not be best tomorrow.

Since all knowledge is cumulative and subject to change in the light of new research findings, today’s best evidence may be challenged tomorrow. This is why the BES programme is described as iterative. People would not find it acceptable if doctors ignored relevant research findings because they might change in future. Nor should they find it acceptable for educators to ignore current research. The dismissal of current educational research findings in anticipation of future findings may reflect education’s vulnerability to fads and fashions. The more that educational professionals and policy makers engage with the educational leadership knowledge base, the more they will be able to discriminate between innovations destined to be passing fads and those that are well grounded in evidence. Part of the problem in education is that there is so little cumulative knowledge building. In the absence of an appreciable body of knowledge, an individual study or new finding can assume unwarranted importance.

Schools are supposed to be future focused—this evidence is from what worked in the past.

The concern here is different from that expressed in the previous question. It is that the educational environment will be so radically different in future-focused schools that past evidence will no longer be relevant. While there is an element of truth in this, that element should not be exaggerated. The historical record shows that schooling is extraordinarily resistant to radical change. And while some aspects of schooling—such as the interests that students pursue—may change quite radically, such changes will not, in themselves, make the BES irrelevant. Research that describes student interests will quickly date; research that provides a deep, theoretical, and empirical explanation of the role that interests and prior experience play in student learning is likely to have much more enduring value.

Is this BES only about the leadership of principals?

Our brief for this BES was to consider both the role of the principal and a more inclusive leadership concept: distributed leadership. Distributed leadership is inclusive of all acts of leadership, regardless of whether those who exercise it have formally designated leadership


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roles. The task-specific leadership of teachers who do not have formal leadership roles in their schools is as much part of distributed leadership as the leadership of those in middle and senior management positions. While much of the research used in this BES refers only to principals, the insights it brings are often applicable to department and faculty heads and members of senior management. The focus in the research literature on principals reflects a traditional and limiting association of leadership with the person who heads an organisation\textsuperscript{18}.

**How can this BES be useful when there is so little New Zealand research?**

While there is very little New Zealand evidence that directly addresses the impact of school leadership on student outcomes, there is substantial and very useful evidence that indirectly addresses the subject. An overseas origin does not mean that research is necessarily of no use to New Zealand educators. Its usefulness will depend on the type of study and the variables involved. BES readers will be able to test their assumptions about the worth of the overseas evidence by comparing the findings from chapters that draw on (mostly direct) international evidence with the findings in the chapters that synthesise the (mostly indirect) New Zealand evidence.

### 1.3 A reader’s guide to the chapters of this BES

The evidence relevant to this BES was extraordinarily diverse. Some of it involved complex, multivariate studies that tested models of the paths by which school leaders make a difference to student outcomes. Some was focused on just a few leadership variables. A large group of studies reported on interventions to improve teaching and learning, detailing the processes involved and the outcomes achieved. To fill gaps in the literature, we have also drawn from theory and research relating to student and teacher learning. Research from the fields of social and organisational psychology has deepened our understanding of exactly how the leadership dimensions work.

Given the methodological diversity of the field, we decided to conduct several different analyses and then synthesise the various findings. This strategy enabled us to conduct analyses that were appropriate to the different types of study and to be transparent about whether the different bodies of evidence yielded similar conclusions. In the following overview, we explain what we are trying to achieve in each chapter and what evidence we used. This should help readers to decide which chapters they want to focus on and in which order. The references and appendices can be used as stand-alone resources.

**Chapter 1** describes the purpose of the BES, foreshadows its main findings, and provides an overview for each chapter. The responses to readers’ questions and comments in the preceding section are intended to clarify what a BES is and is not. They could be used as a basis for staff discussion.

**Chapter 2** explains that the overarching purpose of this BES is to help educational leaders and policy makers address the disparities in social and academic achievement that exist between different groups of students and prepare all of our children for the future. After a brief overview of student achievement in New Zealand, we discuss the need for leadership to attend to cultural identity and to social as well as academic outcomes. This chapter also highlights pressures on New Zealand principals and school trustees working within a self-managing school system. The chapter is titled ‘Our shared challenges’ to make it clear that success in meeting these challenges depends on systemic support for the work of educational leaders.

Chapter 3 introduces the methods used to uncover the links between school leadership and student outcomes. It also defines the concepts of leadership and student outcomes as we see them applying to Māori- and English-medium educational environments. Readers who have questions about the trustworthiness of this BES should find some answers in this chapter. More detail will be found in the methods sections and appendices associated with the different chapters.

Chapters 4 and 5 present an analysis of the evidence from research that directly investigates the impact of leadership on student outcomes. Chapter 4 reports a meta-analysis of the relative impact of two broad types of leadership: transformational and instructional/pedagogical leadership. This chapter should be of immediate interest to readers who are familiar with these two leadership theories. The evidence for the impact of transformational leadership is, on the whole, far less compelling than that for instructional/pedagogical leadership. Chapter 5 reports a much more finely grained analysis of the same evidence. It identifies the relative impact on student outcomes of five different leadership dimensions.

Chapter 6 draws on indirect evidence about the links between leadership and student outcomes. The evidence comprises New Zealand research on the impact of interventions intended to improve teaching and learning in both Māori- and English-medium environments. While not designed as studies of leadership, these studies provide some rich descriptions of the roles that leaders—from both inside and outside the participating schools—played in these successful projects. The New Zealand evidence is mostly derived from interventions in low-decile primary schools with high proportions of Māori and Pasifika students. Unfortunately, little research is available on interventions in secondary schools. Readers will find that there is considerable overlap between the leadership dimensions that emerged from this New Zealand evidence and those that emerged from the predominantly international studies reported in chapters 4 and 5.

Chapter 7 reports a meta-analysis of international and New Zealand evidence that shows the relative impact of various kinds of school–home connections. The chapter highlights the role of school leadership in building educationally powerful links with students’ families and whānau, focused particularly on teaching and homework. This chapter shows how leaders can avoid counterproductive practices and dramatically lift achievement for educationally under-served students.

Chapter 8 reflects on the evidence presented in chapters 4 to 7, asking what knowledge, skills, and dispositions (KSDs) leaders need to engage in those practices that have been identified as making the greatest difference to student outcomes. Vignettes and examples illustrate these KSDs in action. Appendix 8.1 integrates the two sets of dimensions and describes the knowledge, skills, and dispositions implied by them.

Chapter 9 examines the extent to which the New Zealand education system is structured in ways that enable, require, and support school leaders to engage in the kinds of practice that are linked to positive outcomes for students. The chapter also reflects on the state of New Zealand research on educational leadership, on the many gaps in the evidence, and on the crucial role of research and development in improving New Zealand schools and classrooms.

School leadership cases for professional learning. This section presents six cases that show leadership in action across a range of different school and policy contexts. Each case is explicitly linked to particular leadership dimensions and shows how they work in combination with relevant knowledge, skills, and dispositions in the accomplishment of important leadership tasks. The cases are designed as professional learning resources and can be used for either individual or group development purposes. They provide easy access into the main points and implications of the research studies on which they are based. Each concludes with questions and suggestions for further reading.
Appendices. Five of the eight appendices are methodological, providing detail about particular sources of evidence or statistical analyses. The last three have been designed as resources for school leaders. Appendix 8.1 outlines the KSDs that underpin each of the leadership dimensions and could appropriately be used as a leadership development curriculum. Because in-depth knowledge of teaching and learning is central to pedagogical leadership, Appendix 8.2 provides a summary (based on the *Quality Teaching for Diverse Students in Schooling BES*\(^{19}\)) of evidence about what constitutes quality teaching. Appendix 8.3 reports similar evidence for quality teaching in the specific curriculum areas of mathematics and social sciences.

A glossary of Māori terms is provided on page 287.

References

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


### Glossary of Māori terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>Ako</td>
<td>Teaching and learning, understood as a single, reciprocal process</td>
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<tr>
<td>Hapū</td>
<td>Sub-tribe</td>
</tr>
<tr>
<td>Hui</td>
<td>Meeting, gathering, usually with a specific kaupapa</td>
</tr>
<tr>
<td>Iwi</td>
<td>People, nation, tribe</td>
</tr>
<tr>
<td>Kaiako</td>
<td>Teacher, instructor</td>
</tr>
<tr>
<td>Kanohi ki te kanohi</td>
<td>Face to face</td>
</tr>
<tr>
<td>Kaumātua</td>
<td>Elder, old man or woman, adult</td>
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<tr>
<td>Kaupapa</td>
<td>Purpose, agenda</td>
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<tr>
<td>Koro</td>
<td>Male elder, old man, grandfather</td>
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<tr>
<td>Kuia</td>
<td>Female elder, old woman, grandmother</td>
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<tr>
<td>Kūrā</td>
<td>School</td>
</tr>
<tr>
<td>Kūrā kaupapa Māori</td>
<td>Māori-medium school with an identifiable philosophical base (e.g., Te Aho Matua)</td>
</tr>
<tr>
<td>Kūrā whānau</td>
<td>The support network of families and extended families associated with a school</td>
</tr>
<tr>
<td>Ngāti</td>
<td>Prefix denoting tribe</td>
</tr>
<tr>
<td>Pākehā</td>
<td>New Zealand-born non-Māori, especially those of European descent</td>
</tr>
<tr>
<td>Pāngarau</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Pānui</td>
<td>Reading</td>
</tr>
<tr>
<td>Pōwhiri</td>
<td>Formal welcome or opening ceremony</td>
</tr>
<tr>
<td>Taonga</td>
<td>Prized possession, treasure, inheritance</td>
</tr>
<tr>
<td>Te Aho Matua</td>
<td>Literally, the central thread; the philosophical statement that guides the operations of many kura</td>
</tr>
<tr>
<td>Te reo Māori</td>
<td>The Māori language</td>
</tr>
<tr>
<td>Te reo Māori me āna tikanga</td>
<td>Māori language and customs</td>
</tr>
<tr>
<td>Tikanga</td>
<td>The usual and accepted procedure or way of doing things; protocol</td>
</tr>
<tr>
<td>Tuhituhi</td>
<td>Writing</td>
</tr>
<tr>
<td>Tumuaki</td>
<td>Principal, head teacher, leader</td>
</tr>
<tr>
<td>Whakapapa</td>
<td>Ancestry, genealogy</td>
</tr>
<tr>
<td>Whānau</td>
<td>Family, to be understood in a much more encompassing sense than the nuclear family; network of mutual supports and obligations</td>
</tr>
<tr>
<td>Whanaungatanga</td>
<td>Sense of kinship, family, belonging</td>
</tr>
</tbody>
</table>

Mo ngā tamariki, kia rua ngā reo. Ko te reo o ngā mātua tipuna tuatahi, ko te reo o tauiwi tuarua. Kia ʻōrite 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.

Kūrā 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 Kūrā Kaupapa Māori._

English interpretation by Dr Kāterina Te Heikōkō Mataira