



MINISTRY OF EDUCATION

Te Tāhuhu o te Mātauranga

School Leadership and Student Outcomes: Identifying What Works and Why

Best Evidence Synthesis Iteration [BES]

Viviane Robinson, Margie Hohepa, and Claire Lloyd
The University of Auckland

Chapter 5



ITERATIVE BEST EVIDENCE SYNTHESIS PROGRAMME
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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.

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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.iaoed.org and on the UNESCO website <http://unesdoc.unesco.org>. The first of these summaries to be published is:

Timperley, H. (2008). *Teacher professional learning and development: Educational practices series 18*. International Academy of Education, International Bureau of Education & UNESCO. <http://unesdoc.unesco.org/images/0017/001791/179161e.pdf>

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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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Claire Lloyd

Nāu te rourou, nāku te rourou, ka ora te iwi.
Through each of our contributions the people will thrive.

5. *The dimensions of school leadership that make a difference to students*

In Chapter 4, we examined the impact of pedagogical and transformational leadership on student outcomes. We now move to a more detailed examination of the impact of particular leadership dimensions on a range of student outcomes. By ‘dimension’, we mean a broad set of leadership practices. For example, the dimension ‘planning, coordinating, and evaluating teaching and the curriculum’ includes all leadership activities connected with planning a curriculum, coordinating it within and between year levels, and monitoring the results—as well as evaluation of teaching.

The leadership dimensions reported in this chapter were derived from the wording of the various survey items used to measure school leadership and from the definitions of the leadership constructs. While these dimensions make it clearer what leaders should focus on to make a difference to student learning, they offer limited guidance on how to lead. This guidance is found in chapters 6, 7, and 8.

5.1 *The relative impacts of different dimensions of leadership*

Further details about how we derived the leadership dimensions, and their impacts on student outcomes, are to be found in Appendix 5.1. The results of this analysis are presented in Table 6 and in Figure 14. For each dimension, the table provides a brief description, the mean of the effect size estimates, and the standard error (a measure of uncertainty)¹⁷³. The five listed dimensions emerged from the 12 asterisked studies listed in Appendix 4.1 and reflect the research to date. As such, they will not be the last word on effective leadership—new dimensions may emerge from future research on the leadership–outcomes relationship.

Many accounts of effective school leadership distinguish between dimensions or practices that address organisational tasks (such as coordinating the curriculum) and those that involve people relationships¹⁷⁴. Our five dimensions do not recognise this task–people dichotomy because each dimension involves both aspects. In goal setting, for example, effective leadership involves not only determining the goal and the standard to be achieved (task aspects) but also ensuring that staff understand and become committed to the goal (relationship aspects).

¹⁷³ Standard error is a measure of sampling variability. While a small standard error suggests that a sample is representative of the population, a large standard error can sometimes be an expression of meaningful variability.

¹⁷⁴ For example, Leithwood, Louis, and Wahlstrom (2004) organise their literature review on how leadership influences student learning under the three headings: setting directions, developing people, and redesigning the organisation. Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004, September). *How leadership influences student learning*. Retrieved June, 2005, from www.wallacefoundation.org/NR/rdonlyres/E3BCCFA5-A88B-45D3-8E27-B973732283C9/0/ReviewofResearchLearningFromLeadership.pdf

Table 6. The impact of five leadership dimensions on student outcomes (n = 199)

Leadership dimension	Meaning of dimension	Mean effect size and standard error
1. Establishing goals and expectations	Includes the setting, communicating, and monitoring of learning goals, standards, and expectations and the involvement of staff and others in the process so that there is clarity and consensus about goals.	ES = .42 (.07) 49 effect sizes from 7 studies
2. Resourcing strategically	Involves aligning resource selection and allocation to priority teaching goals. Includes provision of appropriate expertise through staff recruitment.	ES = .31 (.10) 11 effect sizes from 7 studies
3. Planning, coordinating, and evaluating teaching and the curriculum	Direct involvement in the support and evaluation of teaching through regular classroom visits and the provision of formative and summative feedback to teachers. Direct oversight of curriculum through school-wide coordination across classes and year levels and alignment to school goals.	ES = .42 (.06) 80 effect sizes from 9 studies
4. Promoting and participating in teacher learning and development	Leadership that not only promotes but directly participates with teachers in formal or informal professional learning.	ES = .84 (.14) 17 effect sizes from 6 studies
5. Ensuring an orderly and supportive environment	Protecting time for teaching and learning by reducing external pressures and interruptions and establishing an orderly and supportive environment both inside and outside classrooms.	ES = .27 (.09) 42 effect sizes from 8 studies

Figure 14 suggests that dimensions 2 and 5 have small effects on outcomes, dimensions 1 and 3 have moderate effects, and dimension 4 has a large effect¹⁷⁵. We have adopted Hattie’s guidance (based on a synthesis of over 800 meta-analyses) and taken an effect size of .2 to be small, .4 to be medium, and .6 to be large¹⁷⁶. Recent New Zealand research using asTTle (Assessment Tools for Teaching and Learning) data¹⁷⁷, found that the yearly effect of teaching in reading, mathematics, and writing (years 4–13, n = 83,751) was about .35 (though the pattern was not linear). Teachers typically achieve an effect of between .2 and .4 growth per year, and this is considered average. This leads Hattie to believe that teachers should be seeking effects of greater than .4 over a school year for gains in student achievement to be considered above average. Gains greater than .6 can be considered excellent. With regard to innovations, Hattie argues that an “effect size of .4 sets a level where the effects of innovation enhance achievement in such a way that we can notice real-world differences, and this should be a benchmark of such real-world change. It is not a magic number ... but a guideline to begin discussions about what we can aim for if we want to see students change.”¹⁷⁸

While it is apparent that the dimensions that are closer to the core business of teaching and learning have a greater effect, this does not explain the large difference between leadership that is directed at planning, coordinating, and evaluating the curriculum and leadership that is directed at teacher learning and development. Both dimensions are concerned with a school’s

¹⁷⁵ Effect size is a statistic used to express the extent to which one variable influences another. For example, the effect of cooperative learning on the development of mathematical problem-solving skills. Since the results of many different types of study can be expressed in terms of effect size, this statistic provides a convenient way of comparing the relative magnitude of the impacts of different variables.

¹⁷⁶ Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge, pp. 7–21 and 237–261. Hattie notes that, when making policy or practice decisions, it is important to consider the effect in relation to the investment required to gain it. Also, a small effect can nevertheless be important. Using a health-related example, he points out that although the effect of regularly taking low-dose aspirin is small (effect size = .07), the practice costs very little and saves lives.

¹⁷⁷ *ibid.*

¹⁷⁸ *ibid.*, page 17

core business, but only the second relates to leadership of learning. It may be, therefore, that this second dimension discriminates between leadership support for teaching and learning that is essentially managerial and support that is primarily focused on professional learning. Whatever the explanation, this dimension offers a path by which leaders of syndicates, departments, faculties, schools, and school clusters can make a significant impact on student outcomes.

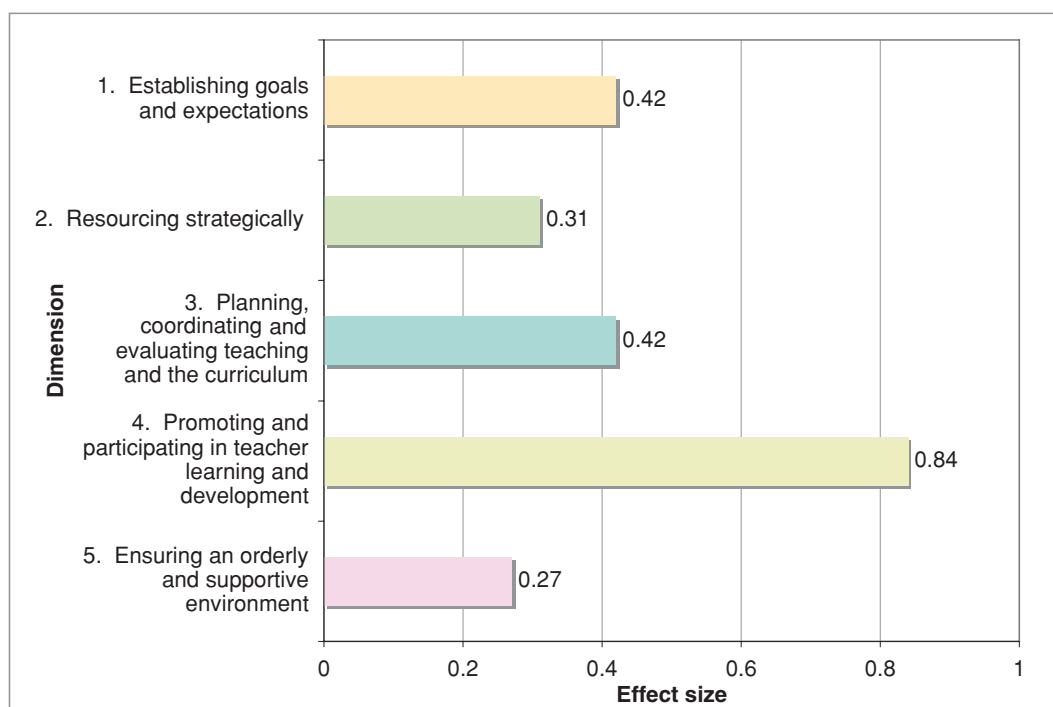


Figure 14. The relative impact of five leadership dimensions on student outcomes

We now review the evidence as it relates to each dimension. In some cases, what we have to say will be brief, because the quantitative studies provide little information about exactly how the dimensions work—they have been designed to test, rather than explain, the leadership–outcomes relationship. If leaders are to apply the dimensions in ways that benefit their students and staff, they need explanations of the particular attributes that make the difference. We draw some information on these attributes from the 12 quantitative studies discussed here; many other insights are found in the qualitative research presented in Chapter 6.

Dimension 1: Establishing goals and expectations

Seven of the 12 studies in the dimensional analysis provided evidence for the importance of goals and expectations. We were able to calculate effect sizes for 49 indicators of this dimension; the mean was .42, which can be interpreted as moderate and educationally significant.

Like all the leadership dimensions discussed, goal setting has indirect effects on students (and sometimes on parents too). With student background factors controlled for, leaders made a difference to students by emphasising clear learning goals¹⁷⁹. This was observed even in schools where leaders did not make academic goals the top priority. For example, Goldring and

¹⁷⁹ Bambug, J. D., & Andrews, R. L. (1991). School goals, principals and achievement. *School Effectiveness and School Improvement*, 2(3), pp. 175–191.

Brewer, D. J. (1993). Principals and student outcomes: Evidence from US high schools. *Economics of Education Review*, 12(4), pp. 281–292.

Heck, R. H., Marcoulides, G. A., & Lang, P. (1991). Principal instructional leadership and school achievement: The application of discriminant techniques. *School Effectiveness and School Improvement*, 2(2), pp. 115–135.

Pasternak¹⁸⁰, in their study of Israeli community schools, found that while academic excellence was not one of the top five goals of either low- or high-performing schools, the latter gave it significantly more emphasis than the former.

It is important that goals are specific. In a recent study involving Sydney secondary schools¹⁸¹, it was found that the more strongly principals espoused abstract vision statements, the more negatively their teachers reacted. The indicators of leadership vision/inspiration were:

- specifies the importance of having a strong sense of purpose;
- talks enthusiastically about what needs to be accomplished;
- talks optimistically about the future;
- articulates a compelling vision for the future;
- expresses confidence that goals will be achieved;
- talks about their most important values and beliefs.

The negative reactions were due to a perceived discrepancy between the principal's talk and walk—visions that never amount to more than words and symbols soon lose any power to inspire. This particular study illustrates the importance of understanding the qualities that discriminate between effective and ineffective enactments of the five leadership dimensions.

In high-achieving schools or schools that are making major achievement gains, a focus on academic goals is both a property of leadership ('the principal makes student achievement the school's top goal') and a quality of school organisation ('school-wide objectives are the focal point of reading instruction in this school'). To function as coordinating mechanisms, goals need to be embedded in school and classroom routines and procedures¹⁸². Successful leaders exert their influence through interpersonal relationships and by structuring how teachers do their work¹⁸³.

That relationships are an important aspect of this dimension is apparent from the fact that leaders in higher-performing schools tend to put greater emphasis on communicating goals and expectations¹⁸⁴, informing the community of academic accomplishments, and recognising academic achievement¹⁸⁵. It also appears that the level of staff consensus on goals may be a significant discriminator between otherwise similar high- and low-performing schools¹⁸⁶.

There is evidence that the content of goals may be as important as the process by which they are set. Some of the pedagogical leadership studies included indicators that required teachers to report their leaders' emphasis on particular goals, not just the extent to which their leaders provided a general direction. This greater alignment in the pedagogical leadership research between leadership indicators and outcome variables may partly account for its stronger effects (compared with transformational leadership). A similar suggestion was made by Leithwood and Jantzi¹⁸⁷ when discussing the role of transformational leadership in England's national literacy and numeracy reforms. These authors found that while effective transformational leadership could explain the extent of teacher change, the extent of teacher change bore no relationship to student gains in either literacy or numeracy. We support Leithwood and Jantzi's

¹⁸⁰ Goldring, E. B., & Pasternak, R. (1994). Principals' coordinating strategies and school effectiveness. *School Effectiveness and School Improvement*, 5(3), pp. 237–251.

¹⁸¹ Barnett, K., McCormick, J., & Conners, R. (2001). Transformational leadership in schools: Panacea, placebo or problem? *Journal of Educational Administration*, 39(1), pp. 24–46.

¹⁸² Robinson, V. M. J. (2001). Embedding leadership in task performance. In K. Wong & C. Evers (Eds.), *Leadership for quality schooling: International perspectives* (pp. 90–102). London: Falmer Press.

¹⁸³ Ogawa, R. T., & Bossert, S. T. (1995). Leadership as an organizational quality. *Educational Administration Quarterly*, 31(2), pp. 224–243.

¹⁸⁴ Heck, R. H., Larsen, T. J., & Marcoulides, G. A. (1990). Instructional leadership and school achievement: Validation of a causal model. *Educational Administration Quarterly*, 26(2), pp. 94–125.

Heck, Marcoulides, & Lang (1991), op. cit.

¹⁸⁵ ibid.

¹⁸⁶ Goldring & Pasternak (1994), op. cit.

¹⁸⁷ Leithwood, K., & Jantzi, D. (2006). Transformational school leadership for large-scale reform: Effects on students, teachers, and their classroom practices. *School Effectiveness and School Improvement*, 17(2), pp. 201–227.

call for leadership researchers to focus more on *what* changes leaders encourage and promote and less on the extent to which they promote *unspecified* changes or innovation:

There is a significant gulf between classroom practices that are “changed” and practices that actually lead to greater pupil learning; the potency of leadership for increasing student learning hinges on the specific classroom practices which leaders stimulate, encourage and promote (p. 223)¹⁸⁸.

In the context of goal setting, this means that leaders and researchers need to focus not only on motivational and direction-setting activities but on the educational content of those activities and their alignment with desired student outcomes.

The Witziers et al. meta-analysis of research on the direct effects of leadership on academic achievement¹⁸⁹ also suggests the importance of goal setting. While the authors found that the impact of leadership per se was negligible, the direction-setting role of the leader had greater direct impact on student outcomes than any of the other six dimensions of leadership for which data were available. This finding is at variance with our own meta-analysis, but this is not surprising, given that the two use quite different methodologies and databases. Goal setting was also one of the 21 dimensions of effective school leadership that emerged from the Marzano et al.¹⁹⁰ meta-analysis of US research on the links between leadership and student outcomes.

There are many issues that the research has not addressed. What knowledge and evidence do leaders and teachers need for setting student learning goals? How do they know what counts as an appropriate goal or target? What are the pitfalls and challenges involved in goal setting? How can goal setting be an empowering rather than a punitive exercise? Leaders need to know how to engage in the process—and what goals are educationally valuable and pedagogically appropriate. They also need to know how to weave the school mission, goals, and direction into the organisational fabric of the school. Goals are powerful, coordinating mechanisms; they must be articulated and communicated, but they only impact on students when they are embedded in organisational and classroom routines. We return to these issues in Chapter 6.

Dimension 2: Resourcing strategically

The use of ‘strategically’ in this context signals that this leadership dimension is about securing and allocating resources that are aligned to pedagogical purposes, not securing resources per se. This differentiates it clearly from the skills of, for example, fundraising, grant writing, or partnering with business, as these skills may or may not be applied in ways that serve important pedagogical purposes.

Seven studies provided evidence for how principals can influence student achievement through decisions that concern staffing and teaching resources¹⁹¹. Eleven indicators yielded an average effect size of .31, which suggests that this dimension has a small, indirect impact on student outcomes.

One study found a small relationship between leaders’ ability to secure instructional resources and student achievement in a sample of Californian schools and a large relationship in a sample of Marshall Island schools¹⁹². The stronger finding for the Marshall Islands probably reflects a relative scarcity of teaching resources. Another study, involving 20 US high schools, revealed an interesting interaction between principals’ control of teacher selection and the ambitiousness

¹⁸⁸ *ibid.*

¹⁸⁹ Witziers, B., Bosker, R. J., & Krüger, M. L. (2003). Educational leadership and student achievement: The elusive search for an association. *Educational Administration Quarterly*, 39(3), pp. 398–425.

¹⁹⁰ Marzano, R. J., Waters, T., & McNulty, B. (2005). *School leadership that works: From research to results*. Aurora, CO: ASCD and McREL.

¹⁹¹ Andrews, R., & Soder, R. (1987). Principal leadership and student achievement. *Educational Leadership*, 44(6), pp. 9–11.

Bamburg & Andrews (1991), *op. cit.*

Heck, Larsen, & Marcoulides (1990), *op. cit.*

¹⁹² Heck, Marcoulides, & Lang (1991), *op. cit.*

of their academic goals¹⁹³. For those with high academic goals, student achievement was higher where they had been able to appoint a greater proportion of their teachers. For principals with low academic goals, the reverse was true: where they had been responsible for appointing their own staff, student achievement was generally lower.

We need to learn more about the knowledge and skills that leaders require in order to link the recruitment and allocation of resources to specific pedagogical goals. For example, how do leaders decide which of the many literacy programmes available to introduce into their schools? What criteria (implicit and explicit) are used, and on what information will decisions be based? This dimension needs greater conceptual development, particularly with respect to how budgeting and staff appointments link to goal setting.

Dimension 3: Planning, coordinating, and evaluating teaching and the curriculum

Eighty indicators drawn from nine studies show that this leadership dimension has a moderate impact on student outcomes (ES = .42). 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 the curriculum. This dimension has four interrelated sub-dimensions.

1. Teachers in high-performing schools report that their leaders are actively involved in collegial discussion of instructional matters, including how instruction impacts on student achievement¹⁹⁴. The one New Zealand study included¹⁹⁵ also suggests that it is important for leaders to be involved in the oversight and discussion of instruction. This study sought to determine how much of the variation in the reading achievement of 9-year-olds was attributable to student background, community characteristics, and school context. While school context explained only 5% of the variance, the researchers found a significant relationship between principal engagement with teaching and student achievement: “The more school principals involved themselves in teacher evaluation and development, the greater the likelihood that the students from their schools would score highly on the reading tests” (p. 174)¹⁹⁶. The level of principal engagement in these activities was assessed using teacher surveys (see Box 2 for the nature of the questions asked). There is no obvious reason why heads of department in secondary schools could not be similarly assessed. Since they are entrusted with much of the pedagogical leadership in their schools, outcomes-linked research on their effectiveness is sorely needed.

Box 2. Assessing principal engagement in evaluation of teachers and teaching¹⁹⁷

The Measure of Principal Engagement was derived from teacher responses to questions designed to assess:

- whether they perceived their work to be evaluated by the school principal (or deputy principal);
- whether the school principal (or deputy principal):
 - discussed with them explicit achievement standards for the subjects they taught;
 - asked for evaluation results or progress of their students in reading;
 - made suggestions about the choice of instructional methods in reading;
 - encouraged contacts among teachers;
 - initiated activities directed at the professional development of teachers;
 - made suggestions about the content that must be covered in reading.

¹⁹³ Brewer (1993), op. cit.

¹⁹⁴ Heck, Marcoulides, & Lang (1991), op. cit.

¹⁹⁵ May & Wagemaker (1993), op. cit.

¹⁹⁶ *ibid.* It is important to note, however, that subsequent multivariate analyses did not reveal a significant relationship between this variable (principal engagement) and student achievement.

¹⁹⁷ For the exact questions, see Postlethwaite, N., & Ross, K. (1992). *Effective schools in reading: Implications for educational planners*. Hamburg: IEA.

2. The leadership of high-performing schools is distinguished by its active oversight and coordination of the instructional programme. School leaders and staff work together to review and improve teaching—an idea captured by term ‘shared instructional leadership’¹⁹⁸. Leaders in high-performing schools were more directly involved in coordinating the curriculum across year levels than those in low-performing schools. They might, for example, contribute directly to the development of year-level progressions of teaching objectives for reading¹⁹⁹. It is probable that the importance of close leader oversight of teaching depends to some extent on the effectiveness of the school or department. In one study of only four schools in the Marshall Islands, teacher reports of being left alone to teach were a strong predictor of high levels of achievement. The authors suggest that this may indicate that poor performance attracted close supervision.

3. In high-performing schools, leaders were more likely to do classroom observations and provide subsequent feedback. Teachers in such schools reported that their leaders set and adhered to clear performance standards for teaching²⁰⁰ as well as doing regular classroom observations that helped them improve their teaching²⁰¹.

4. In high-performing schools, there was greater emphasis on ensuring that student progress was systematically monitored²⁰² and test results were used for the purpose of programme improvement²⁰³. In a study of Hawaiian primary schools, principals led school-wide examinations of achievement data and teachers took the lead in classroom monitoring of student achievement²⁰⁴. Teacher use of data to evaluate student progress, adjust teaching, plan the weekly programme, and give students feedback was a strong indicator of school quality, and school quality was a significant influence on student achievement in reading and maths. Unfortunately, the three relevant studies gave very little information about the routines and procedures used to review student progress, or about how the schools involved developed the expertise and infrastructure to collect, interpret, and then use data. In Chapter 6, we synthesise the New Zealand evidence on the role of leadership in improving student learning. This chapter will provide much more detail on what is needed to develop the capacity and infrastructure for this work.

It is important to consider whether these findings are equally applicable to primary and secondary schools. The greater size of many secondary schools, their differentiated structures, and the culture of specialist teaching suggest that the influence, particularly of the principal, may be attenuated²⁰⁵. One US study involving elementary and high schools²⁰⁶ measured the instructional leadership activities of both principals and others with designated responsibilities. Despite this more inclusive definition of leadership, the author found that the mean frequency of instructional leadership activity in both high- and low-performing schools was lower for secondary than for elementary schools; the mean effect sizes were .42 and 1.1 respectively. This suggests that strong leadership oversight of teaching and curriculum has more impact in primary than in secondary schools. This is an area in which further research, using identical indicators across both high- and low-performing primary and secondary schools, is needed.

¹⁹⁸ Heck, Larsen, & Marcoulides (1990), op. cit.

Heck, Marcoulides, & Lang (1991), op. cit.

Marks, H. M., & Printy, S. M. (2003). Principal leadership and school performance: An integration of transformational and instructional leadership. *Educational Administration Quarterly*, 39(3), pp. 370–397.

¹⁹⁹ Heck, Marcoulides, & Lang (1991), op. cit.

²⁰⁰ Andrews & Soder (1987), op. cit.

Bamburg & Andrews (1991), op. cit.

²⁰¹ *ibid.*

Heck, R. H. (1992). Principals’ instructional leadership and school performance: Implications for policy development. *Educational Evaluation and Policy Analysis*, 14(1), pp. 21–34.

Heck, Larsen, & Marcoulides (1990), op. cit.

²⁰² *ibid.*

²⁰³ Heck, Marcoulides, & Lang (1991), op. cit.

²⁰⁴ Heck, R. H. (2000). Examining the impact of school quality on school outcomes and improvement: A value-added approach. *Educational Administration Quarterly*, 36(4), pp. 513–552.

²⁰⁵ Siskin, L. S., & Little, J. W. (1995). *The subjects in question: Departmental organization and the high school*. New York: Teachers College Press.

²⁰⁶ Heck (1992), op. cit.

Dimension 4: Promoting and participating in teacher learning and development

The descriptor for this dimension includes the words ‘and participating’ to make it clear that the leader doesn’t stop at supporting or sponsoring their staff in their learning; they actually participate in the learning themselves—as leader, learner, or both. They do this in structured situations, such as staff meetings and professional development workshops, and in informal situations; for example, corridor discussions about specific teaching problems.

Seventeen effect sizes derived from six studies were calculated for this dimension, yielding a mean effect size of .84. This large effect provides empirical support for calls for leaders to be actively involved with their teachers as the leading learners in their schools. Based on teachers’ reports, leaders (usually the principal) in high-achieving and high-gain schools participate more actively in teacher learning and development than leaders in low-achieving or low-gain schools²⁰⁷. They are also more likely to promote and participate in staff discussion of teaching and teaching problems²⁰⁸.

In one study, teachers were asked to name those colleagues who (a) they went to for advice, (b) they discussed school events or issues with, (c) were their personal friends²⁰⁹. Those in high-achieving schools were significantly more likely to view the principal as a source of instructional advice, which suggests that such principals are more accessible and more knowledgeable on instructional matters than their counterparts in otherwise similar, lower-achieving schools. In contrast, the extent to which teachers identified principals as close personal friends or as people they discussed things with was not significantly related to school performance. The authors suggest that leaders who are seen as sources of instructional advice and expertise gain respect from their staff and, as a result, have greater influence over how they teach. Given that the principal occupies a central position in the school communications network, advice from them is more likely to have a system-wide influence than the same advice coming from a colleague²¹⁰. Once again, we need to point out how little information there is on secondary schools, particularly relating to the leadership provided by faculty heads, heads of department, or their equivalents.

Dimension 5: Ensuring an orderly and supportive environment

Pedagogical leadership also involves creating an environment in which important academic and social goals can be pursued and achieved. In an orderly environment, teachers can focus on teaching and students can focus on learning. Eight studies produced 42 indicators for this dimension, with a mean effect size of .27. These indicators included a focus on cultural understanding and a respect for difference; provision of a safe, orderly environment, with a clear discipline code; and minimal interruptions to teaching time. They also included protection of faculty from undue pressure from parents and officials, and effective conflict resolution.

The findings suggest that the leadership of effective schools is distinguished by an emphasis on, and success in establishing, a safe and supportive environment through clear, consistently enforced social expectations and discipline codes²¹¹. One study surveyed teachers, parents, and students to find out how safe, comfortable, and caring they found the school environment²¹²; all three groups gave similar reports. The more positive this response was, the greater the quality of the school and the higher its achievement levels when student background factors

²⁰⁷ Andrews & Soder (1987), op. cit.

Bamburg & Andrews (1991), op. cit.

²⁰⁸ Heck, Larsen, & Marcoulides (1990), op. cit.

Heck, Marcoulides, & Lang (1991), op. cit.

²⁰⁹ Friedkin, N. E., & Slater, M. R. (1994). School leadership and performance: A social network approach. *Sociology of Education*, 67(2), pp. 139–157.

²¹⁰ *ibid.*

²¹¹ Heck, Marcoulides, & Lang (1991), op. cit.

²¹² Heck (2000), op. cit.

were controlled for. In Chapter 2, we reviewed the New Zealand evidence about student safety and support for students because these are important outcomes regardless of their connection to achievement. The evidence presented here suggests that they are indeed connected.

The leadership of high-performing schools is judged by teachers to be significantly more successful than the leadership of low-performing schools in protecting them from undue pressure from education officials and parents²¹³. This finding is particularly strong for secondary schools. Protection of this kind is not about being defensive—indeed, parent-school relationships, where monitored, were found to be more positive in high-performing schools. Rather, it is about allowing teachers to focus on their teaching and about ensuring a coordinated (rather than ad hoc) response to parental politics and lobby groups. Given that school-community relations are less politicised in New Zealand than in the United States, it may be that this particular leadership practice is not so important for New Zealand schools. But, at the very least, it reinforces the importance of ensuring that teachers are able to focus on their teaching.

An orderly and supportive environment is also one in which staff conflict is quickly and effectively addressed. In one study, the principal's ability to identify and resolve conflict, rather than allow it to fester, was strongly associated with student achievement in mathematics²¹⁴. Differences in teacher and principal perceptions of the latter's ability to identify and resolve conflict was an even more significant discriminator between high- and low-performing schools.

On a related theme, the qualitative literature on leadership in 'turn-around' schools suggests how important it is for leaders to have the ability to tackle tough issues. We pick this theme up again in Chapter 8, when we consider leadership knowledge, skills, and dispositions.

5.2 Summary

This dimensional analysis suggests there are important differences between the practices of leaders in otherwise similar, high- and low-performing schools. In high-performing schools, leaders reportedly give greater emphasis to setting, communicating, monitoring, and reporting school goals, especially those that are related to student achievement. In high-performing schools, leaders work directly with teachers or departmental and faculty heads to plan, coordinate, and evaluate teachers and teaching. They are more likely than their counterparts in otherwise similar, low-performing schools to provide evaluations that teachers find useful and ensure that student progress is monitored and the results used to improve teaching. The strongest effects were found for active leader involvement in teacher and professional learning in both structured and informal contexts. Teachers in high-performing schools report that their leaders are initiators of and active participants in professional learning and a valuable source of advice on pedagogical problems. When leaders are actively involved in professional learning, they appreciate the conditions that teachers require to achieve and sustain improvements in student learning. They are then able to discuss changes with teachers and support them as they make appropriate adjustments to class organisation, resourcing, and assessment procedures²¹⁵.

It needs to be kept in mind that only 27 published studies were available for analysis and even fewer contributed to the effect size estimations. Most of the studies were conducted in primary schools and focused on the leadership of the principal. There is no obvious reason why the findings from these studies should not also be applicable to other school leaders and to secondary schools, but more research is needed. We would have preferred to do separate

²¹³ Heck (1992), op. cit.

Heck, Marcoulides, & Lang (1991), op. cit.

²¹⁴ Eberts, R. W., & Stone, J. A. (1986). Student achievement in public schools: Do principals make a difference? *Economics of Education Review*, 7(3), pp. 291–299. This finding does not mean that there is no relationship between conflict resolution and outcomes in other subject areas – only maths outcomes were assessed.

²¹⁵ Nelson, B. S., & Sassi, A. (2005). *The effective principal: Instructional leadership for high quality learning*. Columbia, NY: Teachers College Press.

analyses of academic and non-academic outcomes, but the number of available studies was too small for this to be practicable.

While further research is needed, we conclude from our analysis that pedagogically focused leadership has important impacts on student outcomes: the more leaders concentrate their influence, their learning, and their relationships with teachers on the core business of teaching and learning, the greater their influence on the well-being and achievement of students.

The focus of this chapter has been the five leadership dimensions derived from the forward mapping strategy. The next chapter focuses on the three further dimensions that were derived from the backward mapping strategy. Figure 15 shows how the dimensions derived from the two different strategies relate and integrate.

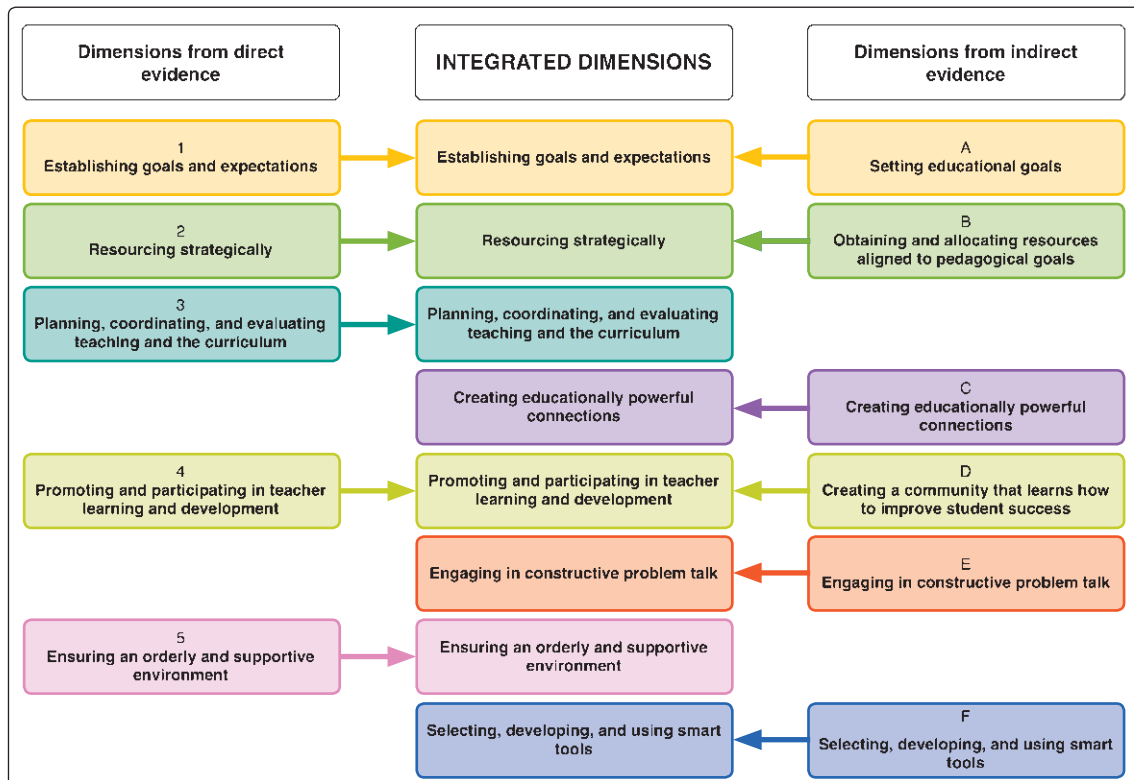


Figure 15. An integration of the dimensions from direct and indirect evidence

Appendix 5.1 Derivation and calculation of mean effects of five leadership dimensions

The leadership dimensions presented in Chapter 5 were inductively derived from the 12 studies in Appendix 4.1 marked with an asterisk. These studies provided the two types of information we needed for this purpose: descriptions of the variables that contributed to the overall measure of leadership and statistical data from which we could calculate the relationships between the variables and student outcomes. For example, Heck and colleagues' studies⁵²⁸ all employ a similar survey in which teachers report the frequency with which their principal or other school leaders engage in particular behaviours. This made it possible to calculate a separate effect size for each survey item. In other studies, where data were reported against leadership component constructs rather than actual survey items, it was also possible to calculate an effect size for each component.

For each of the 12 studies, the survey items or leadership constructs were listed in a spreadsheet and an effect size was calculated for each item or construct to reflect the impact of that particular type of leadership on student outcomes. For some of the studies, it was necessary to list every item from the survey used and then to record or calculate an effect size for each. Where data were not provided for individual survey items, the impacts of the different leadership constructs were calculated and recorded, together with the author's description of each construct.

The exact wording of each survey item or component construct was recorded in a spreadsheet. After multiple readings and preliminary sorting, the 199 entries were finally grouped into five main categories. Definitions were written for each category, and mean effect sizes and standard errors were calculated.

⁵²⁸ Heck, R. H. (1992). Principals' instructional leadership and school performance: Implications for policy development. *Educational Evaluation and Policy Analysis*, 14(1), pp. 21–34;
Heck, R. H., Larsen, T. J., & Marcoulides, G. A. (1990). Instructional leadership and school achievement: Validation of a causal model. *Educational Administration Quarterly*, 26(2), pp. 94–125;
Heck, R. H., Marcoulides, G. A., & Lang, P. (1991). Principal instructional leadership and school achievement: The application of discriminant techniques. *School Effectiveness and School Improvement*, 2(2), pp. 115–135.

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

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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
Kaupapa	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
Pānui	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	A professional development intervention for non-Māori teachers of Māori in English-medium schools. For a description of this intervention, see Case 7 (Establishing a culturally responsive pedagogy of relations) in Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007), <i>Teacher Professional Learning and Development Best Evidence Synthesis</i> . See also the Te Kotahitanga website: http://edlinked.soe.waikato.ac.nz/departments/index.php?dept_id=20
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
Tuhituhi	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 tauwi tuarua. Kia ōrite te pakari o ia reo, kia tu tangata ai ngā tamariki i roto i te ao Māori, i roto hoki i te ao o tauwi.

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 Heikōkō Mataira