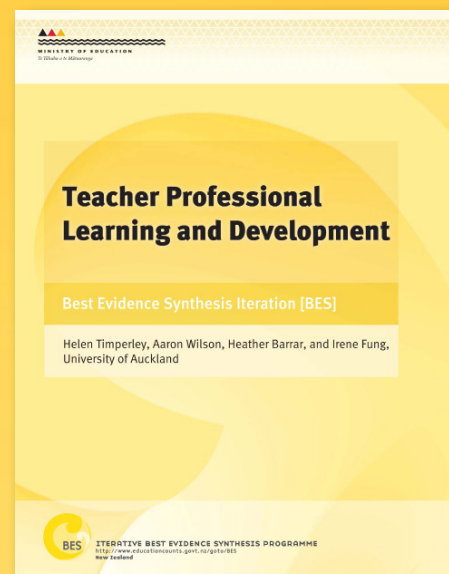


Use assessment-for-learning principles to improve student outcomes

This is one of a series of cases that illustrate the findings of the best evidence syntheses (BESs). Each is designed to support the professional learning of educators, leaders and policy makers.



BES cases: Insight into what works

The best evidence syntheses (BESs) bring together research evidence about ‘what works’ for diverse (all) learners in education. Recent BESs each include a number of cases that describe actual examples of professional practice and then analyse the findings. These cases support educators to grasp the big ideas behind effective practice at the same time as they provide vivid insight into their application.

Building as they do on the work of researchers and educators, the cases are trustworthy resources for professional learning.

Using the BES cases

The BES cases overview provides a brief introduction to each of the cases. It is designed to help you quickly decide which case or cases could be helpful in terms of your particular improvement priorities.

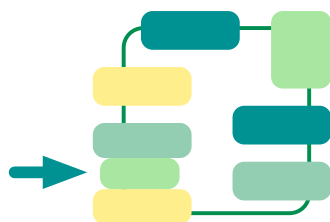
Use the cases with colleagues as catalysts for reflecting on your own professional practice and as starting points for delving into other sources of information, including related sections of the BESs. To request copies of the source studies, use the Research Behind the BES link on the BES website.

The conditions for effective professional learning are described in the Teacher Professional Learning and Development BES and condensed into the ten principles found in the associated International Academy of Education summary (Timperley, 2008).

Note that, for the purpose of this series, the cases have been re-titled to more accurately signal their potential usefulness.

Responsiveness to diverse (all) learners

Use the BES cases and the appropriate curriculum documents to design a response that will improve student outcomes



The different BESs consistently find that any educational improvement initiative needs to be responsive to the diverse learners in the specific context. Use the inquiry and knowledge-building cycle tool to design a collaborative approach to improvement that is genuinely responsive to your learners

Use assessment-for-learning principles to improve student outcomes

Linking assessment-for-learning strategies to student goals can lead to improvements in students’ academic achievement and self-regulatory practices.

This case demonstrates how teacher and student competency matrices can be used to create a vision for teaching and learning based on assessment-for-learning principles.

Used to analyse records of practice (such as video or audio) against a set of criteria, matrices can be a powerful tool for teachers, enabling them to gauge where they are at and where to go next. This case demonstrates how this can be done.

For a discussion of smart tools, see BES Case 32: *Develop policy and curriculum documents that focus on student outcomes*. See also BES Exemplar 3: *Teacher and student use of learning goals*.

Using assessment to build teaching capability

Context	Setting
	Time
	Focus of PD
	Goals

This case was situated in a cluster of 14 schools in Northland and involved 70 teachers and 1600 students. The Ministry of Education funded the providers, Evaluation Associates, but schools met all other costs. In 13 of the schools, over 50% of the students were Māori; in the other school, approximately 10%.

The professional development spanned two years. In the first, the capacity of lead teachers was developed; in the second, these lead teachers facilitated the same activities with the other teachers in their schools.

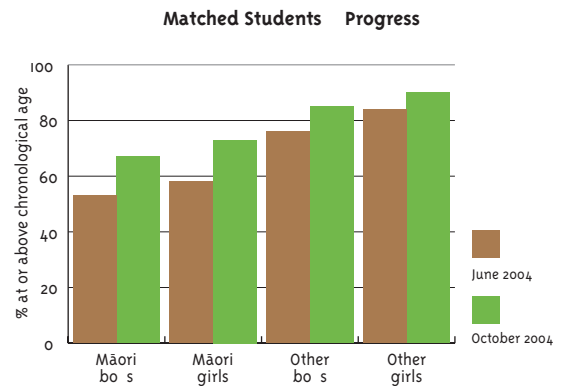
The professional development aimed to raise the reading achievement of all students by improving teachers' use of assessment-for-learning strategies. In the first year, the team focused on developing school management's and lead teachers' understanding of the principles and practices that underpinned assessment for learning. This was done through a series of approximately eight regional workshops alternating with school visits. In the second year, the facilitators supported the lead teachers (who had to be classroom teachers) to undertake similar professional development activities with their colleagues. These activities were tailored to the needs of each school.

The goal of the professional development was to raise student achievement and reduce disparities through changed teaching practice. It was explicit and emphasised from the beginning.

Impact on student learners	Prior to PD
	After PD

Evaluation Associates collected baseline and outcomes data so that they could evaluate effectiveness in a systematic way. They were able to show substantial effect sizes in reading using the PM Benchmarks for years 1–4 and PROBE for years 5–8. In the 45 classes where fewer than 90% of students were reading at or above expectations, students' reading ages were calculated and compared to their chronological ages to determine whether they were reading above, at, or below the expected level.

The graph shows how the proportion of students reading at or above their chronological age changed over five months from June to October 2004. The overall effect size was 0.62, with all groups of students showing greater numbers in the desired achievement band and Māori boys showing the greatest gains.



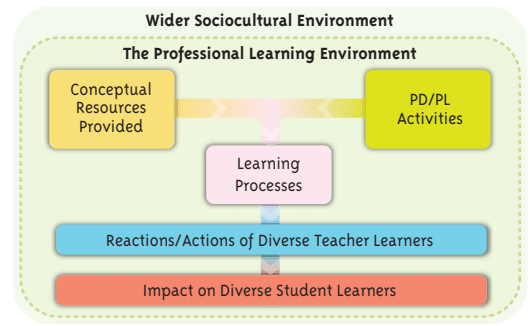
What was learned and how the learning occurred	Establishing a framework of competencies
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To achieve these shifts, Evaluation Associates developed a 'competencies matrix' that identified six teacher competencies that they considered essential when implementing assessment-for-learning practices: building partnerships for learning, clarity about what is to be learned, assessment literacy, promoting further learning, active reflection, and clarity about next learning steps. Each of these competencies was divided into four stages and included four to six dimensions representing differing levels of effective practice. The following example shows the first and final stages of the 'active reflection' competency.

Active reflection: competency five

<p>Stage one</p> <ul style="list-style-type: none"> Teacher reflection occurs independently of students, can be divorced from good assessment information about outcomes or process, and often centres on surface features of the lesson or enjoyment. Teachers regularly ask students to share work at the end of a lesson and discussion often centres on surface features. 	<p>Stage four</p> <ul style="list-style-type: none"> Both teachers and students routinely reflect, and talk reflectively, about what is intended to be learnt, where they have got to, and where they will go next. They also routinely reflect about the learning process. This may often be seen as a formal plenary session, or a learning diary or peer reflection or student conference.
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The competencies matrix, initially introduced through the workshops, was central to promoting teacher learning. The matrix encompassed most of the fundamentals of teaching, including theoretical frameworks, curriculum and pedagogical knowledge, new ways of thinking about assessment, and explicit standards for teaching practice. It was brought to life through classroom demonstrations and video presentations so that teachers could see that it was not just an abstract, theoretical concept. Perhaps the most important activity was the collaborative evaluation of where, for a particular competency, an individual teacher's classroom practice fitted on the matrix, based on a videotape of that teacher's lessons. A major focus of the professional development was to support teachers to review their progress against the competencies and decide on next teaching steps.



Improved practice was not considered an end in itself but was explicitly linked to its impact on students. In each lesson videotaped for the purpose of evaluating a teacher's progress, students were interviewed so that their understanding of the lesson could be analysed. Student achievement was also analysed. Assessments provided teachers with student learning progressions and an understanding of new possibilities for their students. Assessment information was not the exclusive property of teachers—it was shared with students and parents. In this way, it was integral to students' learning. Behind this practice was the competency 'building partnerships for learning with students and parents'. In the process, students learned how to use assessment to improve their own learning.

Students have taken on more responsibility for their learning. They're there to be involved in their own learning.

Teacher

Student

Having a goal is like having a shining star to guide you through the darkness and into the light.

Central to the professional development was the use of active reflection as a tool for inquiring into and improving teaching practice. Reflection was more than a vague musing about one's practice; it was thinking about it in relation to six dimensions: reflection about learning, self- or peer-assessment, reflection about the level of student engagement, reflection about sense of partnership, professional reflection, and students being taught to be routinely reflective. Each of these dimensions was explicitly described according to the four stages. As one teacher said:

There is a constant cycle of reflection about children's learning, asking, 'How can I improve my practice so that children think about their own learning?'

Teacher

The professional development activities were deliberately designed to mirror the principles and practices the teachers were being asked to use. These activities were sometimes designed by the provider and sometimes constructed with teachers. The professional development initially focused on individual, in-class activities, but as facilitators found that they were repeating the same information, they decided to provide more workshops for groups of teachers. 'Quality learning circles' gave teachers the opportunity to discuss with lead teachers and colleagues the challenges involved in changing practice.

Why did this work?

The professional development had several features that contributed to its success. First, a clear goal of raising student achievement and changing teacher practice to this end was established. Second, teachers were provided with a carefully constructed matrix of practices that describe the fundamentals of teaching (theoretical frameworks, curriculum and pedagogical knowledge, assessment and standards) in relation to effective formative assessment practices. Next, teachers were motivated to change practice by evidence that highlighted discrepancies between their current practice and more effective practice, and given the support they needed. Finally, teachers were given multiple and ongoing opportunities to learn, situated in their practice context, so that they could constantly review progress and decide what next to change.

The competencies matrix was used to challenge teachers' current practice and create a vision for more effective practice. Baseline and endpoint assessments of each teacher's practice on each of the six competencies showed that, on average, the performance of lead teachers was at stage 4 by the end of the year, and all teachers had improved.

I now do lots of checking, getting feedback from the students and making sure they know where they're going.

Teacher

Teacher

There is more learning talk in cascade groups, syndicates, school-wide, through formal and informal conversations.

Multiple opportunities to learn were provided throughout the professional development. These were designed to challenge teachers' existing beliefs and practices. The challenges were typically undertaken using evidence-based inquiry processes. For example, one facilitator described how video demonstrations of particular teaching practices often left teachers feeling that they could not implement the demonstrated practices in their own classrooms, with their own students. She described how she typically encouraged them to try out the new (and seemingly unattainable) practice in a safe environment—for example, with a small group of students—then revisit the possibilities for change.

My understanding of what I'm teaching has become clearer to me, more structured, and more logical. Therefore, planned learning activities are more focused on the learning intention.

Teacher

It is reasonable to conclude from student outcomes and teacher comments that the most common teacher reaction to the professional development was to become actively engaged and apply new theory and practice. One teacher said simply that, as a result of using assessment-for-learning approaches, *"I am more motivated to teach."* The use of the lead teacher model to develop leadership within participating schools was a purposeful part of the process.

Teacher

This has made us aware that previously we did loads of meaningless summative assessment—now it is useful, powerful, formative assessment. Students have opportunity to view running records and comprehension results and talk about what they see with their peers, and students look forward to assessment because they know it's a tool—not a test.

How did the teachers make this work?

The role of the lead teachers was crucial to the success of the project. The project director emphasised the importance of backing from the top: *"The support for the professional development from the senior management team is critical."* Equipping the lead teachers to drive the project within their own schools meant that there was continuing support for teachers plus a commitment to ensure that new learning was sustained. Multiple opportunities to review, revise, and refine practice allowed teachers to make changes in line with their developing theoretical knowledge and to translate this into their existing contexts in safe and manageable ways. The effectiveness of the pedagogical approach in raising student achievement and deepening teachers' understanding of how to enhance student learning—along with positive student feedback—motivated teachers to incorporate new practice into their daily teaching.

How this case links to the synthesis

Summary of findings

2. The context of professional learning and development
3. The content of professional learning and development
4. Activities constructed to promote professional learning
5. Learning processes

Topical issues

- 10.1 Issue 1: Multiple roles of assessment in promoting teacher learning
 - 10.2 Issue 2: The role of school leaders in promoting professional development
- Chapter 11 Sustainability

Reflective questions

Teachers were able to make substantial shifts in both their practice and the achievement of their students.

- What features of this project enabled teachers to use information about student learning to make these improvements?
- What aspects of the project were put in place to sustain the changes in practice?

Sources

Absolum, M. (2004a). *Assess to Learn Project* (Project proposal submitted to the Ministry of Education). Auckland: Evaluation Associates.

Absolum, M. (2004b). *ATOL programme 2004* (Report prepared for company purposes only). Auckland: Evaluation Associates.

Absolum, M. (2006). *Mining the data: Learning to use student achievement data to effect change* (Project proposal submitted to the Ministry of Education). Assess to Learn Project. Auckland: Evaluation Associates.