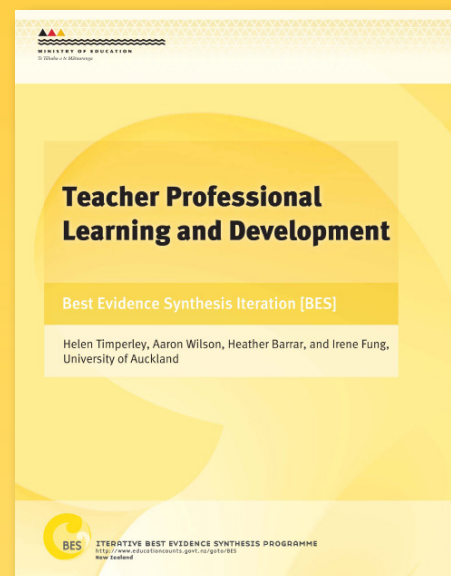


# Make sense of student literacy practices to improve teacher practices

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

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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.

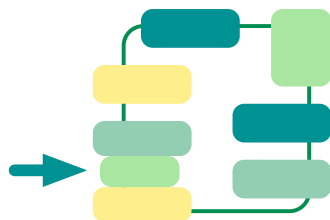
The conditions for effective professional learning are described in the Teacher Professional Learning and Development BES and condensed into the ten principles found in the associated International Academy of Education summary (Timperley, 2008).

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

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

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



cycle tool to design a collaborative approach to improvement that is genuinely responsive to your learners

### Make sense of student literacy practices to improve teacher practices

This case provides a range of tools that can help schools interpret student achievement data, investigate competing theories to find the most plausible explanation for current achievement, and improve teacher practices through the collaborative use of action research, videotaped practice, and high-quality feedback. The tools include workshop content and protocols for professional learning communities.

The case explains how a cluster of seven New Zealand schools used an approach that involved professional learning communities to leverage off the work of teachers of years 1–3. Through joint problem solving, the schools significantly raised the reading achievement of the most at-risk students in years 4–8. The case highlights what the schools did to ensure that the new learning was embedded in school processes (for example, teacher induction and appraisal processes).

See also BES Case 27: *Treat appraisal as a co-constructed inquiry into the teaching–learning relationship.*

## Developing a research–practice collaboration

### Context

#### Setting

The seven decile 1 schools in this study were all involved in a New Zealand Ministry of Education schooling improvement initiative in South Auckland. The total population consisted of students from years 4 to 8, with equal proportions of males and females. The major ethnic groups were Sāmoan (33%), Māori (20%), Tongan (19%), and Cook Islands (15%). Approximately half of these students had a home language other than English. Schools opted into the initiative but all teachers in the participating schools were required to take part. The schools concerned had registered their dissatisfaction with the rates of progress of students in senior classes and were seeking ways to leverage off the recent progress observed in the junior classes.

#### Time

The study lasted for three years and was implemented in three phases. In the first phase, data were analysed and teachers and researchers engaged in discussion of students' strengths and learning needs. The second phase involved professional development sessions designed to develop teachers' content knowledge and fine-tune instructional practices. The third phase was aimed at sustaining the benefits of the initiative, primarily through teacher-led action research projects.

#### Focus of PD

The intervention aimed to identify relationships between teaching and learning that were impacting on the achievement of diverse school populations. The focus of the professional development was to discover the specific reading comprehension strengths and needs of students and to design effective teaching practices to address these needs.

#### Goals

The goals of the professional development were to identify practices that were effective in teaching reading comprehension and to fine-tune these in order to meet the specific needs of the specific school populations concerned. The overall aim was to raise the reading comprehension of students who were performing below national expectations.

### Impact on student learners

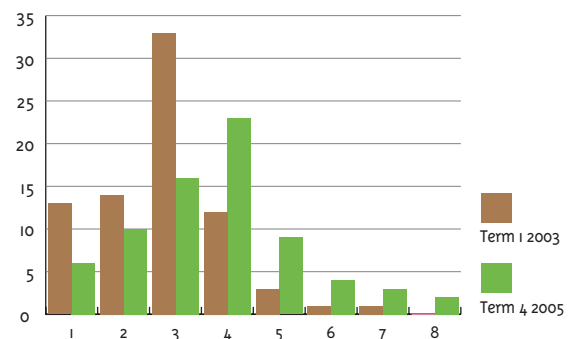
#### Prior to PD

Students' scores on the STAR test (which consists of four subtests: word recognition, sentence comprehension, paragraph comprehension, and vocabulary) indicated that they were able to decode text well, but that their comprehension was well below that expected for students of a similar age, nationally. The paragraph comprehension subtest was of most concern as this was the area where students were furthest behind their peers.

#### After PD

By the end of the third phase of the intervention, there had been an average overall gain of 0.97 of a stanine. This represents approximately one year's progress over and above national expectations of student progress for this period. By the end of the project, the average student scored in the 'average band of achievement' (stanines 4–6) and 10% were in the 'above average' band (stanines 7–9).

Stanine distribution for term 1 2003 and term 4 2005



### What was learned and how the learning occurred

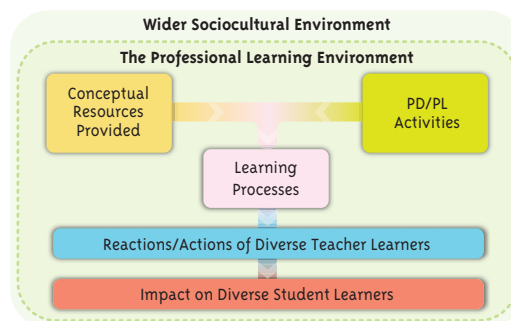
#### Identifying needs through research

Prior to this professional development, teachers in the participating schools had been trained in the analysis of student achievement data. The capacity of school leaders to critically analyse achievement data was evaluated by a researcher and found to be up to standard, although leaders needed further support to make links between the data and teaching practice.

In the first phase of the intervention, the focus was on critically analysing and discussing student achievement data and teacher practice in professional learning communities. The idea was to identify student and instructional needs so that subsequent intervention could be based on the specific profiles of the schools. This was achieved using a two-step process. The first step involved a close examination of student strengths and weaknesses and teaching practice to determine the effectiveness of current instruction and provide an understanding of teaching and learning needs as they related to reading. The second step consisted of raising competing theories about the cause of the problems, and evaluating the evidence for each.

Teachers learned to use standards of accuracy, coherence, and improvability, and to work together with researchers to ensure that valid conclusions were drawn. 'Accuracy' relates to ensuring that claims are based on fact—either accurate data or clear understandings of what others think or do. 'Coherence' involves looking at the big picture to ensure that any solution to a problem will not create problems elsewhere. 'Improvability' refers to the need for theories to be testable and able to be revised—to meet changing situations, identify faulty reasoning, and allow for erroneous assumptions to be corrected. Theories needed to incorporate feedback loops so that unintended consequences of any actions can be identified and theories altered accordingly.

In the second phase of the intervention, while they continued to collect information on teaching practice and student outcomes, teachers also participated in workshops and activities based on the findings from the previous phase and the dimensions of effective teaching. These sessions combined an introduction to the theoretical principles and research-based ideas with teachers' own investigations and classroom practice. There were ten workshops in all, each followed by a task designed to support teachers to translate theory into practice. Once tasks had been completed, the next workshop began with a discussion of findings and a sharing of resources relating to the topic. The box below outlines the content of the workshops and the follow-up tasks, together with the associated activities or aspects of the professional development (other than listening to provider experts).



Integrating theory and practice

	Content	Tasks
1	An introduction to theoretical concepts of comprehension related to the profiles of teaching and learning.	Teachers examined their individual classroom achievement profiles and compared these with school and cluster-wide patterns.
2	A focus on strategies, in particular the issues of checking for meaning, fixing up confusion, and strategy use in text.	Teachers increased the instructional focus on checking for meaning.
3	The introduction of theories and research related to the role of vocabulary in comprehension. Professional readings.	Teachers designed a simple study that looked at building vocabulary through teaching, and carried it out in their classrooms.
4–5	The significance of the density of instruction and repeated practice with a particular focus on increasing access to rich texts including electronic texts.	The task mirrored the emphasis of the workshop, with teachers analysing the range and types of books available in their classrooms and student engagement.
6–7	The concepts of incorporation of cultural and linguistic resources, building student awareness of the requirements of classroom tasks, and features of reading comprehension.	Observation and analysis of these features of the instruction.
8–9	<p>Transcripts of videotaped classroom lessons were used to exemplify patterns of effective teaching in different settings—such as guided or shared reading—so that teachers could develop the practice of examining and critiquing each other's practices.</p> <p>Topics requested by teachers, such as the role of homework and teaching and learning in bilingual settings.</p>	Teachers planned to create learning circles, where colleagues would observe aspects of teaching (such as building vocabulary) in each other's classrooms and discuss with one another what these observations indicated about effectiveness.
10	Teachers were given the opportunity to review their collaborative teaching and learning observations.	

Sustaining the change

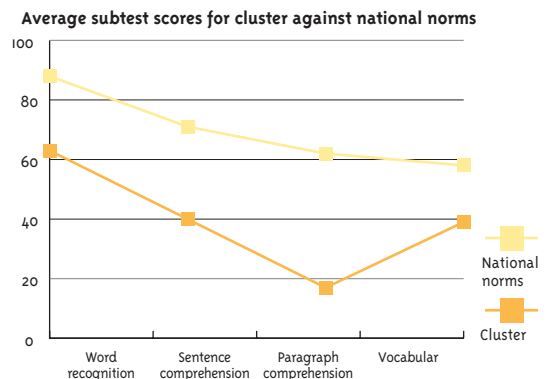
The literacy leaders and the researchers planned the third phase of the intervention together. The collection and critical discussion of cluster-wide data continued, as did the learning circles developed in the previous phase. Schools experienced high rates of staff turnover, averaging one third of teachers in the cluster each year, so induction processes were developed that included professional learning opportunities to ensure that new staff understood their school's literacy focus.

During this phase, teams of teachers developed their own action research projects, often with a pre- and post-testing component, to check aspects of their teaching programmes. Teams generated their own questions and the researchers helped the teachers shape them and develop processes for answering them. Two research meetings were held in six of the seven schools—the seventh school had a change of principal and literacy leader and declined to develop projects. Eleven of the research projects were presented at a teacher-led conference in the fourth term of that year. Ninety percent of teachers in the cluster attended, along with other professional colleagues including literacy advisors.

## Why did this work?

The teachers and researchers used contextualised evidence as a basis for informed decision making about teaching and learning. All the participants were involved in the subsequent needs analysis, not just the providers. Because teachers had had agency in the decision-making process, they were engaged by the content of the workshops. The tasks following each workshop were designed to support teachers to translate new learning into practice. Any issues identified went onto the agenda to be discussed with both peers and experts. These discussions were an opportunity for teachers to share their successes and concerns and it was here that the protocols were established for professional learning communities that would later function independently. The stage was now set for the third phase of the intervention, in which new learning was embedded into core practice and teachers began to inquire critically into their own practice. The teachers from the school that declined to participate in the action research projects showed their continued interest by attending the teacher-led conference held at the end of the year. This underscores the importance of supportive and proactive leaders.

In the first phase of the professional development, teachers identified their students' strengths and weaknesses and then proposed competing theories that could link the achievement data they had gathered to observations of their own practice. As they could have addressed their students' low achievement in reading comprehension by following any of a number of different, competing approaches, they decided to investigate, rather than assume, what students really needed. One example of this concerned paragraph comprehension, which had been identified as an area of weakness. Paragraph comprehension was assessed through cloze passages (passages with some words omitted). Students were required to read these passages and find appropriate words to fill the gaps. The average subtest scores for the cluster on the STAR test are shown in the graph. The following conversation shows how comprehension, rather than decoding, was identified as the weakness.



Researcher: What does this graph tell you about students' strengths and weaknesses?

Teacher 1: Decoding is their strength. The word recognition subtest is pretty close to national norms.

Researcher: So what does that mean, educationally that is?

Teacher 1: They can bark at text but can't understand what they are reading.

Teacher 2: Yeah. Look at paragraph comprehension. It is very weak. On average, they are only scoring 20%!

Teacher 3: That is really low. That's about 4 out of 20, isn't it?

Teacher 2: Yes. Their vocabulary is pretty weak too. It might be linked.


Teacher 4: We should look at the other year levels too. Are they all equally weak at paragraph comprehension? Is this a problem across the whole school?

When the researchers analysed the test in greater detail, they noticed that students appeared to be over-predicting, or guessing. Their mistakes made sense up to the point where they had made them, but not in the context of the whole sentence. Observations of how teachers taught reading comprehension showed that they rarely asked students to check if their predictions were consistent with the information from the text. The researchers theorised that this could be why students did not check their answers in the cloze passages to see if they made sense. The members of the teachers' learning community checked the theory against examples from their own practice and agreed that it was plausible, so they decided to incorporate more checking into their teaching programmes. The workshops in the second phase responded to the needs that the teachers had identified, and the teachers' findings informed subsequent practice.

During the third phase, teachers developed action research projects. The purposes behind these were: to strengthen teachers' professional learning communities, to embed the practice of gathering and critically analysing evidence, and to ensure that what had been learned in the second phase of professional development was utilised. The projects chosen linked closely to the areas identified in the initial phase and included: increasing students' vocabularies, increasing factual information in narrative writing, skimming and scanning, instructional strategies to increase the use of complex vocabulary in writing, reviewing the effects of a new assessment tool on teaching practice, redesigning homework to raise literacy levels, and the use of critical thinking programmes. These projects encouraged teachers to draw on evidence about teaching and learning from their own contexts and to fine-tune their practices through critical analysis and problem solving, supported by professional learning communities. The support of researchers was still available, but by this stage the learning communities were developing the skills to review and enhance their own practice and to develop their own theories independently.

The roles of researcher and school changed as the project went through its three phases. The researchers initially were providers of external expertise. They then became part of the learning community. Finally, they had a support role, providing specific help in areas identified by the school. By the third phase, the schools were driving the professional development, as is evidenced by the teacher-run conference, induction processes to support new staff, and appraisal to ensure that teachers continued with their new learning and action research projects. Schools were able to source new funding so that, while they were driving their own learning, they could still access support from external providers as required. The elected chairperson of the initiative explained the importance of the collaboration between the external providers and the schools:

*The goal was to raise achievement, and unless we were able to inquire into the causes underlying the lack of achievement, we were just going to perpetuate what we'd been doing. We could say the words, but we didn't know what the problem was. We needed someone who would challenge what we kept saying was the problem and what we were doing about the problem. We couldn't have done it on our own ... We needed a teacher, an analyst, a problem solver, a research-literate individual ... We needed someone to challenge our assumptions, develop our skills in using achievement information, expand our thinking, and enable us to become evidence-based decision makers.*


 Teacher

### How did the teachers make this work?

The focus of the professional development was on joint problem solving by teachers and researchers around evidence that the teachers had gathered themselves or which they agreed was accurate and valid. The teachers, in collaboration with the researchers/providers, identified the direction that the professional development should take by means of critical analysis and discussion of evidence. Where there were more than one possible explanation for a finding, competing theories were raised and the whole staff came together as a professional learning community to investigate and find the most plausible explanation. Through this process, teachers gradually developed the skills to inquire into the effectiveness of their own practice and worked together as a community to review and refine their practice in light of agreed evidence.

### How this case links to the synthesis

#### Professional learning and literacy

- 8.2.1.3 Engagement of expertise
- 8.2.2.1 Pedagogical content knowledge
- 8.2.2.2 Shared theories
- 8.2.2.3 Multiple uses of assessment
- 8.2.3.2 Activities to link key ideas to teaching practice
- 8.2.3.4 Creating professional learning communities

#### 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
- 10.4 Issue 5: Professional learning communities
- Chapter 11 Sustainability

### Reflective questions

These teachers had been involved in substantial professional development in reading comprehension.

- How did this approach build upon the teachers' current understandings?
- What leading key elements in the process leading from problem identification to sustaining practice led to improved student outcomes?

McNaughton, S., Lai, M. K., MacDonald, S., & Farry, S. (2004). Designing more effective teaching of comprehension in culturally and linguistically diverse classrooms in New Zealand. *Australian Journal of Language and Literacy*, 27 (3), 184-197.