MINISTRY OF EDUCATION
Te Tāhuhu o te Mātauranga

This document is part of a set of materials for teachers and school leaders that explores Teaching as Inquiry and culturally responsive pedagogies within specific curriculum areas. The full set is available online at http://nzcurriculum.tki.org.nz/inquiry. Online users can also access the hyperlinks indicated in blue in the text.

Teachers as Learners: Improving Outcomes for Māori and Pasifika Students through Inquiry

These learning materials are primarily for teachers and school leaders, and they may also be useful for others in education. They use examples of teachers investigating the impact of their teaching on their Māori and Pasifika students. Their purpose is to illustrate how teachers have used an inquiry approach to teaching to become more culturally responsive and to improve outcomes for their Māori and Pasifika students.

The teachers' stories illustrate a variety of contexts and experiences: some involve teachers relatively new to the profession, while others show very experienced teachers taking a fresh look at their practice. Whatever their situation, all the teachers have willingly shared the challenges and highlights of their investigations in order that other teachers and school leaders may use them as triggers for their own inquiries.

Contents

Introduction

■ Why focus on inquiry and on Māori and Pasifika student achievement?

The New Zealand Curriculum and *Te Marautanga o Aotearoa* explain why an inquiry approach to teaching is so important.

> Since any teaching strategy works differently in different contexts for different students, effective pedagogy requires that teachers inquire into the impact of their teaching on their students.
>
> Ministry of Education, 2007b, page 35

The New Zealand Curriculum describes a cyclical process of inquiry that it calls "Teaching as Inquiry". The purpose of the Teaching as Inquiry cycle is to help students achieve worthwhile learning that will lead them to become "confident, connected, actively involved, and lifelong learners" (page 8).

While students are at its heart, the Teaching as Inquiry cycle isn't just about student learning. It's also about teacher learning. When teachers inquire into the relationship between their teaching and their students' learning, they add to the knowledge and skills they can use to respond to the particular needs, interests, and strengths of the diverse students in their classes. As teachers build their knowledge and talk about their learning with their students, they model for their students what it is to be a lifelong learner.

All those who work in education in Aotearoa New Zealand can take pride in the results we achieve for our young people. We can point to years of outcome-linked evidence showing that many of our young people are succeeding as learners. Nevertheless, we also know that, on average, some groups have not been learning successfully within our education system and that these groups have tended to include Māori and Pasifika. In the face of increasing evidence that these patterns are not set in stone and that effective teaching can make a real difference for all students, there has been a more deliberate focus on doing better for our Māori and Pasifika students.

Doing better for our Māori and Pasifika students requires recognising the rich diversity that exists within each of the two student populations. For example, New Zealand's Pasifika population includes multiple ethnicities, languages, and cultures, and Pasifika communities comprise people born in the Pacific Islands and in New Zealand. Doing better also requires recognising that each student is an individual, with their own understanding of what it means to be Māori or Pasifika and of what it means to be a New Zealander.

Ka Hikitia – Managing for Success: The Māori Education Strategy 2008–2012 calls for an approach that focuses on Māori potential. *Ka Hikitia* has three underlying principles:

- Māori Potential: all Māori learners have unlimited potential

- Cultural Advantage: all Māori have cultural advantage by virtue of who they are – being Māori is an asset; not a problem

- Inherent Capability: all Māori are inherently capable of achieving success.

> Ministry of Education, 2007a, page 19

Like *Ka Hikitia*, the *Pasifika Education Plan 2008–2012* calls for the education system to "step up" so that Pasifika students gain the education they need for future success.

> Success in education is positively harnessing Pasifika diversity and their multiple world views within an enabling education system that works for young people, their families and communities. These are the cornerstones of stepping up the Pasifika Education Plan to accelerate urgency in achieving better education outcomes for Pasifika. Pasifika success is critical for the future of Aotearoa New Zealand.
>
> Ministry of Education, 2007c

While students are at its heart, the Teaching as Inquiry cycle isn't just about student learning. It's also about teacher learning.

■ How were these materials generated?

These materials emerged as a consequence of the commitment of teachers from schools throughout Aotearoa New Zealand who took up the opportunity to participate in the Quality Teaching Research and Development Project (QTR&D).

QTR&D was an exploratory project founded on the beliefs that all young people can succeed at school and that one of the keys to enabling students to achieve their potential is effective classroom teaching. Its purpose was to help teachers improve teaching and learning outcomes for their Māori and Pasifika students by providing the teachers with opportunities to inquire into their classroom practice and to participate in tertiary study.

University-based lecturers and facilitators provided support to the project in nine different "hubs" around the country. Each hub involved teachers working in a particular context (literacy, numeracy, social studies, or science) and a particular language setting (English medium, Māori medium, or Samoan bilingual). While all hubs shared the same basic principles and goals, the providers were able to design and implement courses that met the needs and built on the knowledge of particular groups of teachers.

Although the teachers who participated in QTR&D worked within a range of contexts, they shared a commitment to improving outcomes for their Māori and Pasifika students. They all had the opportunity to read and discuss research and recent literature on their inquiry question, to deliberately apply their new understandings within their classroom practice, and to evaluate the impact of doing so. Their learning goals were to:

- increase their pedagogical knowledge and skills in their particular curriculum area;

- explore culturally responsive pedagogies and how they could use them to enable their Māori and Pasifika students to achieve to their full potential;

- use Teaching as Inquiry processes to connect general principles about effective pedagogy to the diverse experiences, strengths, knowledge, and needs of the students they taught.

The teachers placed students at the centre of their learning, which could be visualised like this:
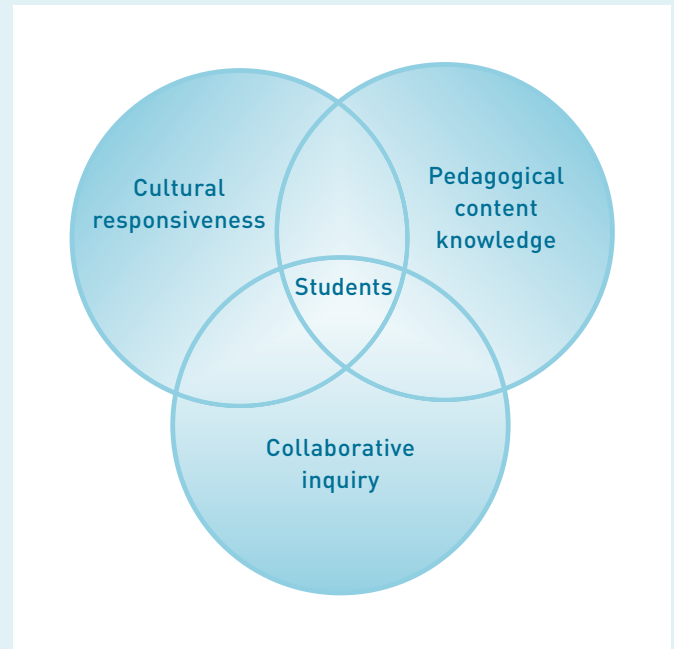
Each of the teachers wrote a report on their inquiry into their practice. Seven of these reports have been adapted as learning stories; these are included in this set of materials as springboards for thinking about the Teaching as Inquiry cycle, effective pedagogy, and cultural responsiveness and how they might connect to your own practice.

Most of the teachers in QTR&D did not use the Teaching as Inquiry cycle as illustrated in *The New Zealand Curriculum* (page 35), as it was still in development at the time. They used a variety of different inquiry approaches, all of which aimed to improve student outcomes through using evidence to solve problems. For the purposes of these materials, the teachers' stories have been mapped onto the Teaching as Inquiry cycle.

This has been the beginning of a challenging but rewarding journey. I started by thinking I was aware of the issues and was meeting the needs of my Māori and Pasifika students pretty well. Through exposure to research and new learning in the QTR&D project I came to realise that my background and cultural perspectives had been influencing the effectiveness of my teaching for Māori and Pasifika students. My journey of "learning, relearning and unlearning" had begun.

◼ What do these materials consist of and how might you use them?

There are a number of separate components to these materials:

- a printed brochure that includes this introduction, a section outlining and illustrating the Teaching as Inquiry cycle, and an overview of the learning stories;

- online learning stories or case studies that adopt the Teaching as Inquiry cycle to describe the work of seven of the teachers who participated in QTR&D.[1]

The materials include reflective questions that are intended to trigger your thinking about the needs, strengths, and interests of the diverse students you teach. There are also links to related materials and websites that provide ready access to relevant content. You can use the stories, questions, and links to generate and seek answers to inquiry questions of your own.

You could work through the materials by yourself, but research shows that the most rewarding approach is likely to be to work with others with whom you can share and discuss ideas, questions, information, and experiences. Together, you can learn about your practice and, in the process, build a stronger knowledge base that will lead to significant improvements for your students.

Collaborative inquiry takes time and can be quite uncomfortable as participants encounter challenges to deeply held beliefs about teaching, about their students, and about themselves. Nevertheless, within your inquiry, even the smallest of changes may result in significant rewards that are an encouragement to carry on. This is reflected in the following quote written by one of the teachers at the end of her final report:

> This has been the beginning of a challenging but rewarding journey. I started by thinking I was aware of the issues and was meeting the needs of my Māori and Pasifika students pretty well. Through exposure to research and new learning in the QTR&D project I came to realise that my background and cultural perspectives had been influencing the effectiveness of my teaching for Māori and Pasifika students. My journey of "learning, relearning and unlearning" had begun (Wink, 2000). What was required seemed enormous, almost overwhelming, and my intervention seemed so small in comparison. I kept questioning whether I was really doing anything at all: would it make a difference, was it enough? In the end, the students themselves answered these questions for me through their increased participation, excitement about learning, and deeper conceptual understandings. Even my small intervention made a big difference for my target students and me. If my intervention made that much difference for my students, the possibilities to increase student participation and raise social studies conceptual understandings in the future are exciting and a challenge that I am eager to meet.

> *I kept questioning whether I was really doing anything at all: would it make a difference, was it enough? In the end, the students themselves answered these questions for me through their increased participation, excitement about learning, and deeper conceptual understandings.*

[1] The brochure and learning stories are available in HTML and PDF formats at http://nzcurriculum.tki.org.nz/inquiry
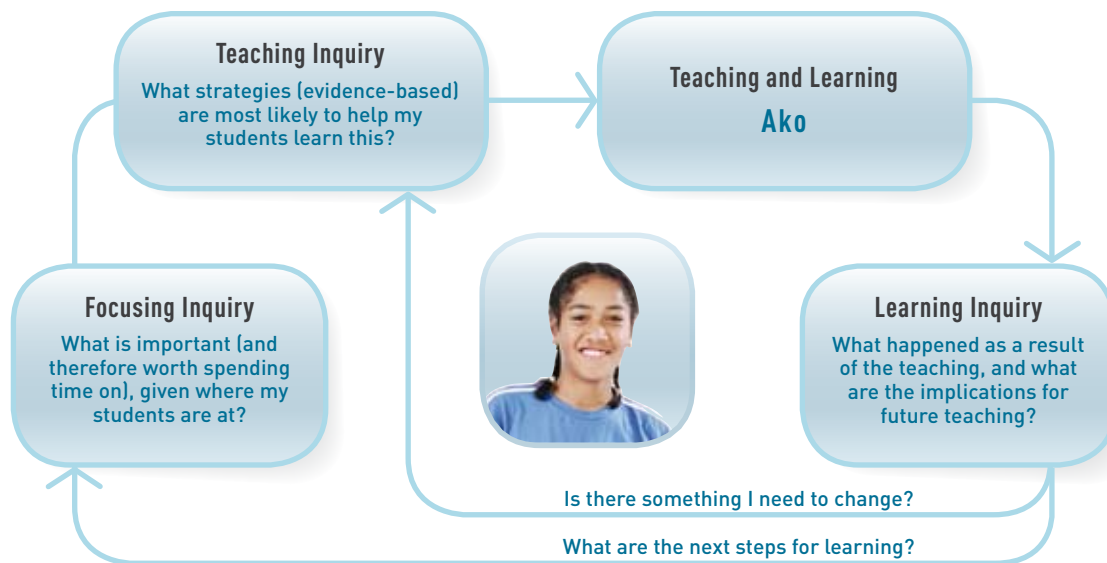
■ Reflective questions

There are some important concepts and approaches that feature throughout these materials and that were, to different degrees, the focus of learning for teachers in QTR&D. They include *cultural responsiveness, Teaching as Inquiry, effective pedagogy, evidence-based practice*, and *collaborative inquiry*. As you work through these materials, you and your colleagues could ask yourselves:

- What are our shared understandings of these concepts and approaches? What informs our understandings?

- How much attention do we pay to these concepts and approaches at our school?

- How much attention do we pay to them in our own teaching and learning practices?

Teaching as Inquiry

Teaching Inquiry
What strategies (evidence-based) are most likely to help my students learn this?

Teaching and Learning
Ako

Focusing Inquiry
What is important (and therefore worth spending time on), given where my students are at?

Learning Inquiry
What happened as a result of the teaching, and what are the implications for future teaching?

Is there something I need to change?

What are the next steps for learning?

■ Overview

The New Zealand Curriculum (pages 34–35) and *Te Marautanga o Aotearoa* (pages 13–16) describe some of the teaching approaches that research shows to have a consistently positive impact on student learning. However, they stress that there is no formula that will work for every student in every situation.

> Since any teaching strategy works differently in different contexts for different students, effective pedagogy requires that teachers inquire into the impact of their teaching on their students.

Ministry of Education, 2007b, page 35

The fundamental purpose of the Teaching as Inquiry cycle is to achieve improved outcomes for all students. Less obviously, but very importantly, the cycle is an organising framework that teachers can use to help them learn from their practice and build greater knowledge.

In the **focusing inquiry**, teachers identify the outcomes they want their students to achieve. They consider how their students are doing in relation to those outcomes, and they ask what their students need to learn next in order to achieve them.

In the **teaching inquiry**, teachers select teaching strategies that will support their students to achieve these outcomes. This involves asking questions about how well current strategies are working and whether others might be more successful. Teachers search their own and their colleagues' past practice for strategies that may be more effective, and they also look in the research literature to see what has worked in other contexts. They seek evidence that their selected strategies really have worked for other students, and they set up processes for capturing evidence about whether the strategies are working for their own students.

The **learning inquiry** takes place both during and after teaching as teachers monitor their students' progress towards the identified outcomes and reflect on what this tells them. Teachers use this new information to decide what to do next to ensure continued improvement in student achievement and in their own practice.

Although teachers can work in this way independently, it is more effective when they support one another in their inquiries. We all have basic beliefs and assumptions that guide our thinking and behaviour but of which we may be unaware. We need other people to provide us with different perspectives and to share their ideas, knowledge, and experiences.

What does the literature say?   **Example from QTR&D**

Australian educator Alan Reid tells us that all educators need to be:

> professionals who are able to theorise systematically and rigorously in different learning contexts about their professional practices – including the issues, problems, concerns, dilemmas, contradictions and interesting situations that confront them in their daily professional lives; and can develop, implement and evaluate strategies to address these. That is, educators are understood as people who learn from teaching rather than as people who have finished learning how to teach.

<div align="right">2004, page 2</div>

The New Zealand Curriculum describes the Teaching as Inquiry cycle and the idea of purposeful assessment (page 39). Assessment is one of the tools that inquiring teachers use to improve their students' learning and their own teaching. You can find resources to spark discussion about these and other related ideas on The New Zealand Curriculum Online.

The Teaching as Inquiry cycle was initially developed by the writers of Effective Pedagogy in Social Sciences/Tikanga ā Iwi: Best Evidence Synthesis Iteration [BES]. The cycle is discussed in section 2.2 of the synthesis.

Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis Iteration [BES] emphasises the importance of focusing on student outcomes and using both research evidence and assessment information to improve teaching and learning. It stresses the importance of making links between the cultural contexts children experience at home and those they experience at school. It also highlights the need to ensure that teaching is responsive to students' learning processes.

Teacher Professional Learning and Development: Best Evidence Synthesis Iteration [BES] confirms what many teachers had always suspected – that teacher learning is of crucial importance to student learning. It describes the kinds of professional learning opportunities for teachers that make a real difference to student outcomes.

Reflecting back on her inquiry, one of the teachers commented on the depth of learning she had experienced through questioning her everyday classroom practices:

> Through this journey, I have discovered that my classroom was not culturally inclusive for all my students. Many of my Māori and Pasifika students were disadvantaged by the way I taught. This was a hard lesson to learn and accept. This journey has changed my thinking about teaching and learning. Most importantly, I have had to question why and how I do things in my classroom. My teaching is now based on a better understanding of social studies and has become more conceptually focused. In order to utilise family stories effectively as a resource, I have begun to develop a community of learners where reciprocal teaching, strong student–teacher relationships, and quality dialogue have become important parts of the learning environment.

■ The focusing inquiry

This **focusing inquiry** establishes a baseline and a direction. The teacher uses all available information to determine what their students have already learned and what they need to learn next.

The key question for the focusing inquiry is: **What is important (and therefore worth spending time on), given where my students are at?**

The teachers in QTR&D began their inquiries with a sense of personal responsibility for the achievement of their Māori and Pasifika students. They also believed that learning more about culturally responsive pedagogies and engaging in inquiry would help them in their commitment to improve those students' outcomes.

During their focusing inquiries, they each began to draft an inquiry question that related to a particular issue of concern or interest in their class. They also selected a group of students to focus on and a set of outcomes that they wanted them to achieve. Focusing on a small group made it much easier for the teachers to evaluate the impact of the changes they made to their practice.

The teachers gathered data to find out how their students were doing in relation to the outcomes they had prioritised. They sought this data from a wide variety of sources, including student achievement records, observations, audio and video recordings, interviews, questionnaires, and standardised assessment tools.

For many, this initial set of data became "baseline data" that they could compare to later data to identify shifts and plan next steps. When the teachers analysed their baseline data, their focus was not just on their students but also on how they themselves had contributed to the current patterns of student achievement and what it was they might need to learn in order to help their students do better.

What does the literature say?

Helen Timperley has derived ten key principles from the best evidence synthesis of research on teacher professional learning and development. One of those principles is that "Information about what students need to know and do is used to identify what teachers need to know and do" (2008, page 13).

A number of New Zealand educational texts stress the critical role of teachers and school leaders in using inquiry to solve instructional problems and improve student achievement. Two examples that serve as practical guides on inquiry-based practice are *Using Evidence in Teaching Practice* (Timperley and Parr, 2004) and *Practitioner Research for Educators* (Robinson and Lai, 2006). The latter argue that:

> Good teaching and good decisions are based on high-quality information, not on taken-for-granted assumptions about the causes of children's reading failure or the worth of new curriculum resources. The quality of information improves when everyone is open to the possibility that what they had previously taken for granted may not stand up to scrutiny. Teachers who are skilled in processes of inquiry can detect weaknesses in their own thinking about practice and help others to do the same.
>
> page 6

Examples from QTR&D

The teachers began their inquiries from many different starting points. One teacher began by carefully observing his students and reflecting on what he saw.

> *In my year nine mathematics class, it is difficult to engage every child in the group to discuss their mathematical strategies. Some students are reluctant to contribute to discussions, due to more dominant personalities monopolising discussions. Other students often avoid paying attention to tasks, and the subject matter can tend to take different directions. Opportunities to share mathematical ideas are limited due to the barriers stated above. Therefore, the major question arising from these experiences is: "How can I provide equal opportunities to engage students in sharing their mathematical strategies in group situations?"*

Another teacher began by assessing her target students and using this information to identify their learning needs:

> *The students selected for the project scored poorly in the STAR subtest 2, and had achieved stanine 1 in the STAR test at the beginning of the year (February 2007). That is, they came in the lowest 4% of all pupils in the same age group nationwide. They generally have difficulties in word recognition, sentence and paragraph comprehension, word meanings, language of advertising, and understanding styles of writing.*

■ Understanding expectations for achievement

For teachers to understand how their students are doing and what their next learning steps should be, they need to know about the expected rate of progress for students at different levels of the curriculum. The Ministry of Education provides many websites and other resources to help teachers and school leaders understand these expectations. It also provides resources to help teachers and school leaders gather and analyse data about their students and use that information to plan for their own and their students' learning. These resources include *The New Zealand Curriculum* and *Te Marautanga o Aotearoa*, the various teacher handbooks, and the many different assessment tools. Te Kete Ipurangi sites on Assessment and Aromatawai provide good starting points for finding this information.

The New Zealand Curriculum and *Te Marautanga o Aotearoa* set the broad direction and outcomes for students' learning. The National Standards provide reference points at specified stages in students' schooling to help students, teachers, and parents understand what students should achieve and by when. It should be remembered, however, that students start at different points and progress at different rates, so when achievement is being interpreted, rate of progress needs to be considered as well as achievement against a particular standard.

■ The teaching inquiry

In this **teaching inquiry**, the teacher uses evidence from research and from their own past practice and that of colleagues to plan teaching and learning opportunities aimed at achieving the outcomes prioritised in the focusing inquiry.

The key question for the teaching inquiry is: **What strategies (evidence-based) are most likely to help my students learn what they need to learn?**

The teachers in QTR&D wanted to improve their teaching by becoming more culturally responsive to their Māori and Pasifika students. In each hub, the teachers began by reading, thinking, and talking about the concepts of "diversity", "culture", and "cultural responsiveness". They then moved to considering what was known about effective pedagogy in their particular learning areas and how that related to cultural responsiveness. This was approached differently in each hub, for example:

• in the Māori-medium hub, the inquiries were embedded in kaupapa Māori;

• in the Samoan bilingual hub, the focus was on connecting with Samoan students by enhancing their language skills in both Samoan and English;

• in the Social Studies hubs, cultural responsiveness was addressed as a topic within the learning area, and the teachers were supported to examine the differences between their cultural contexts and those of their students.

The teachers in each hub then discussed what the ideas they had explored might mean for their practice. They reflected upon and clarified their inquiry questions, ensuring that their students' learning was connected to their own learning. Then each teacher tried a new strategy that they believed to be consistent with a more culturally responsive pedagogy.

If they hadn't already done so, the teachers set up processes for capturing evidence about the impact of their teaching on their target students, for example, through assessment procedures, interviews with the students, samples of students' work, video recordings, and observations of themselves and their students.

What does the literature say?

There is an increasing body of evidence about the importance of "culturally responsive pedagogies". Much of it has come from professional development programmes designed to help teachers shift to practices that take students' cultural identities into account. Two good starting points are:

- Te Kōtahitanga publications;

- *Literature Review on the Experiences of Pasifika Learners in the Classroom.*

Culture Counts: Changing Power Relations in Education has been a seminal work for many New Zealand educators. It argues that culture is a critical component of education but that:

> Nevertheless, many educational practitioners continue to ignore culture as a central ingredient in educational interactions. Further, many educators remain ignorant of the fact that they bring to educational interactions their own traditions of meaning-making that are themselves culturally generated. This invisibility of culture perpetuates the domination of the "invisible" majority culture. However, it is not sufficient to simply raise awareness of other cultural backgrounds; it is also important for educators to critically evaluate how one set of cultural traditions (their own) can impinge on another (their "students'").

> Bishop and Glynn, 1999, page 78

The importance of identity and culture to educational success is captured in two Ministry of Education strategies. *Ka Hikitia – Managing for Success* prioritises "Māori succeeding as Māori". The *Pasifika Education Plan* calls for all of us in the education system to "step up" for Pasifika education. Each of these strategies then describes what needs to happen in order to improve educational outcomes for these students.

There is also an extensive body of literature about effective pedagogy within specific curriculum areas. For example, teachers who are focused on their students' literacy achievement can use the Ministry of Education handbooks on *Effective Literacy Practice* and the Literacy Online website, and teachers of mathematics and social studies can draw on the best evidence synthesis iterations in their learning areas.

Examples from QTR&D

Many of the teachers in QTR&D chose teaching strategies that linked explicitly to their students' cultures. For example, one teacher explained:

> The study investigates the use of oral language to strengthen comprehension. Samoan people originate from an orators' society from which power emanates. Knowledge of genealogy and tribal history gave political status, and all such knowledge was passed on orally.

A common theme was the importance of finding ways to build relationships with Māori and Pasifika students that were based on understanding, respecting, and valuing their world views.

> By letting go of the power in my class, I enacted a shift in my pedagogy. I was able to share decision making with the students and class by creating our sharing circle. Students were encouraged to make use of sustained opportunities to participate in creating discussion with their peers and myself. They have taken on a variety of roles in which they share the power with me.

The teacher quoted below sought to make stronger connections between Western science and Māori perceptions of the natural world by building a more reciprocal learning community and by engaging more closely with the students' whānau and communities.

> The different views of science supported my learning intention for the following study, where I proposed to introduce both views and allow the students to discuss and explore the similarities and differences of those views and thereby construct their own understanding. Involving members of the local community (whānau and elders) with storying related to "Making Sense of the Living World: Ngahere" will not only help to "rekindle traditions" but will also show the students that the teacher is also the learner and so offer a powerful lifelong learning model.

It is not sufficient to simply raise awareness of other cultural backgrounds; it is also important for educators to critically evaluate how one set of cultural traditions (their own) can impinge on another (their "students'").

■ The learning inquiry

In this **learning inquiry**, the teacher investigates the success of the teaching in terms of the prioritised outcomes, using a range of assessment approaches. They do this both while learning activities are in progress and also as longer-term sequences or units of work come to an end. They then analyse and interpret the information to consider what they should do next.

<div align="right">Ministry of Education, 2007b, page 35</div>

The key question for the learning inquiry is: **What happened as a result of the teaching, and what are the implications for future teaching?**

Two related questions then lead the inquiring teacher back into another round of inquiry: **Is there something I need to change? What are the next steps for learning?**

The teachers in QTR&D used the information they gathered to reflect critically on the impact of the changes in their practice on their students' learning. This involved identifying to what extent their teaching had actually changed and the effect of those changes on the outcomes they had prioritised for their target students. Their reflection took place both during and after teaching. It enabled them to identify strategies that had gone well and should be repeated, others that had promise but needed further adjustment, and those that had not worked at all.

Most teachers finished their research by identifying new questions, issues, and concerns to explore and by suggesting possible new outcomes for student learning, so preparing to move into a further cycle of Teaching as Inquiry.

What does the literature say?

Alan Reid stresses the depth of thinking required to reflect critically on the impact of our practice and to use the information to make decisions about where to go and what to do next.

> I understand inquiry to be a process of systematic, rigorous and critical reflection about professional practice, and the contexts in which it occurs, in ways that question taken-for-granted assumptions. Its purpose is to inform decision-making for action. Inquiry can be undertaken individually, but it is most powerful when it is collaborative. It involves educators pursuing their "wonderings" (Hubbard and Power, 1993), seeking answers to questions or puzzles that come from real-world observations and dilemmas.
>
> 2004, page 3

Like Reid, Helen Timperley recommends that teachers inquire and reflect collaboratively in the context of a professional learning community. She stresses, however, that professional learning communities will only lead to improved student outcomes when they are focused on becoming increasingly responsive to their students.

> The effectiveness of collegial interaction needs to be assessed in terms of its focus on the relationship between teaching practice and student outcomes.
>
> 2008, page 19

Examples from QTR&D

Many of the teachers in QTR&D reported on changes in their thinking and practice and in outcomes for their students that were of deep significance in their own learning as professionals.

One teacher discovered a strategy that seemed more effective at scaffolding learning for her students:

> I started this topic with stories about the last few years of the Holocaust and then jumped backwards to answer "How did it get to that?" I think this background knowledge of where the chronology was heading may have given the students a mental construct on which they could hang the new ideas.

Another teacher found that her assumptions about her students' prior knowledge and her own effectiveness were both challenged:

> When I first started, I had assumed that my passion for art would be infectious to all my students and that we would have 100% student success all around the art department. Was I wrong! Terminology that I had assumed was "common knowledge" was actually unknown to the students.

Many of the teachers felt that the research literature had had a profound effect on their practice:

> Bishop (2001), McNeight (1998), and Wink (2000) suggest that we need to have a classroom environment that engages in reciprocal learning. This means that the teacher is not the fount of all knowledge, but a partner in the learning process. They believe that the teacher needs to listen to the students for their opinions and ideas. Bishop emphasises "student voice" and "power sharing". So I asked the students what it was that they wanted to learn, and I listened to them.

Teachers commented on the value of inquiry, and many of them noted new questions and issues for future investigation:

> This action research cycle sparked a series of questions or strategies that I would like to try. I really began to look at what was working for the teachers down on the marae and decided that I would emulate some of the strategies. I have spoken to our kuia on the marae, and many of the strategies that she uses were reflected in readings about culturally responsive pedagogy (peer teaching, teacher as student). I would really like to find out how closely aligned the E Tipu e Rea whānau is to models of kura kaupapa.

Overview of the Learning Stories

The seven learning stories illustrate parts of the learning journeys of seven different teachers. Each teacher grappled in different ways with the concepts of *collaborative inquiry*, *cultural responsiveness*, and *pedagogical content knowledge* and with how they could better enable their Māori and Pasifika students to achieve success. The learning stories tend to focus on one or two of these concepts; taken together, they make a valuable contribution to the understandings being developed about the concepts by educators in schools and other educational institutions throughout Aotearoa New Zealand. While it would be natural for you to begin with stories situated in contexts similar to your own, there is also much to be gained from reading and thinking about those featuring less familiar contexts.

Title	Curriculum area	Context	Inquiry question
Story 1: Improving Pasifika Students' Conceptual Understandings of Government	Social studies	Year 10 Pasifika students, predominantly speakers of English as a second language, at a decile 1 secondary school	What impact do language fluency strategies, such as concept circles, have on Pasifika students' conceptual understanding of systems of government?
Story 2: Tama ꞌA Le ꞌEleꞌele, Saꞌili Mālō: Enhancing Samoan Students' Comprehension of Written Texts	Literacy	Year 7 and 8 students in a Samoan bilingual unit at a decile 1 intermediate school	What impact would the use of high-level questions in the Samoan language have on students' understanding of texts written in English?
Story 3: Exploring Culturally Responsive Pedagogies in Science	Science	Year 8 Māori and Pasifika students and students of other ethnicities at a decile 6 intermediate school	Does teaching science using the Māori metaphor of ako as a teaching pedagogy help year 8 students understand scientific concepts?
Story 4: Using Explicit Instructional Strategies to Teach Narrative Writing	Literacy	Year 5 and 6 students, mostly Pasifika, at a decile 2 primary school	Will incorporating explicit instructional strategies when teaching narrative writing have a positive impact on students' writing?
Story 5: Constructing Knowledge through Mathematical Discourse	Mathematics	Year 3 students, mostly Māori and Pasifika, at a decile 5 primary school	Will introducing problem-based tasks improve the mathematics achievement of lower-performing students?
Story 6: Using Family Stories in Learning about Cultural Identity and Cultural Transmission	Social studies	Year 5 and 6 Māori and Pasifika students at a decile 3 primary school	How can I use Māori and Pasifika students' past experiences, knowledge, and culture to enhance their achievement and learning?
Kōrero 7: Te Whakapai ake i te Whai Wāhi me ngā Paetae mā te Aromatawai Whakawhanake	Tikanga ā-iwi	Ko ngā ākonga nō ngā tau 6, 7, me 8, i tētahi kura kaupapa Māori e 5 tekau te tātai	Mā te toha i ngā whāinga ako me te hanga tahi i ngā paearu angitu ka piki ake i taku akomanga te whai wāhi me ngā whāinga paetae o te tikanga ā-iwi?
Story 7: Improving Participation and Achievement through Formative Assessment[2]	Tikanga ā-iwi	Year 6, 7, and 8 students at a decile 5 kura kaupapa Māori	Will sharing learning intentions and co-constructing success criteria raise participation and achievement levels in tikanga ā-iwi in my class?

[2] For this teacher working within Māori medium, the story is presented in both Māori and English.

■ References

Aitken, G. and Sinnema, C. (2008). *Effective Pedagogy in Social Sciences/Tikanga ā Iwi: Best Evidence Synthesis Iteration [BES]*. Wellington: Ministry of Education. Available at www.educationcounts.govt.nz/publications/series/2515

Alton-Lee, A. (2003). *Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis Iteration [BES]*. Report from the Medium Term Strategy Policy Division. Wellington: Ministry of Education. Available at www.educationcounts.govt.nz/publication/series/2515

Anthony, G. and Walshaw, M. (2007). *Effective Pedagogy in Mathematics/Pāngarau: Best Evidence Synthesis Iteration [BES]*. Wellington: Ministry of Education. Available at www.educationcounts.govt.nz/publications/series/2515

Bishop, R. (2001). "Changing Power Relations in Education: Kaupapa Māori Messages for Mainstream Institutions". In *The Professional Practice of Teaching*, 2nd ed., ed. C. McGee and D. Fraser. Palmerston North: Dunmore Press.

Bishop, R. and Glynn, T. (1999). *Culture Counts: Changing Power Relations in Education*. Palmerston North: Dunmore Press.

Ferguson, B. P., Gorinski, R., Wendt Samu, T., and Mara, D. (2008). *Literature Review on the Experiences of Pasifika Learners in the Classroom*. Wellington: Ministry of Education. Available at www.educationcounts.govt.nz/publications/pasifika_education/27772/27574/1

Literacy Online: http://literacyonline.tki.org.nz

McNeight, C. (1998). Case 2 in Aitken and Sinnema (2008) (see above).

Ministry of Education (2003). *Effective Literacy Practice in Years 1 to 4*. Wellington: Learning Media.

Ministry of Education (2006). *Effective Literacy Practice in Years 5 to 8*. Wellington: Learning Media.

Ministry of Education (2007a). *Ka Hikitia – Managing for Success: The Māori Education Strategy 2008–2012*. Wellington: Ministry of Education. Available at http://kahikitia.minedu.govt.nz/default.htm

Ministry of Education (2007b). *The New Zealand Curriculum for English-medium Teaching and Learning in Years 1–13*. Wellington: Ministry of Education. Available at http://nzcurriculum.tki.org.nz

Ministry of Education (2007c). *Pasifika Education Plan 2008–2012*. Wellington: Ministry of Education. Available at www.minedu.govt.nz/educationSectors/PasifikaEducation/PolicyAndStrategy/PasifikaEducationPlan.aspx

Ministry of Education (2008). *Te Marautanga o Aotearoa*. Folder of materials, including CD-ROM. Wellington: Learning Media.

Ministry of Education (2009). National Standards (draft). Available at www.minedu.govt.nz/theMinistry/Consultation/NationalStandards.aspx

Reid, A. (2004). "Towards a Culture of Inquiry in DECS". Occasional Paper Series, no. 1. Adelaide: South Australian Department of Education and Children's Services. Available at www.decs.sa.gov.au/corporate/files/links/OP_01.pdf

Robinson, V. and Lai, M. K. (2006). *Practitioner Research for Educators: A Guide to Improving Classrooms and Schools*. Thousand Oaks, Calif.: Corwin.

Te Kete Ipurangi: Aromatawai: www.tki.org.nz/r/aromatawai/index_m.php

Te Kete Ipurangi: Assessment: www.tki.org.nz/r/assessment/index_e.php

Timperley, H. (2008). *Teacher Professional Learning and Development*. International Academy of Education Educational Practices Series, no. 18. Available at www.ibe.unesco.org/en/services/publications/educational-practices.html

Timperley, H. and Parr, J. (2004). *Using Evidence in Teaching Practice: Implications for Professional Learning*. Auckland: Hodder Moa Beckett.

Timperley, H., Wilson, A., Barrar, H., and Fung, I. (2007). *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration [BES]*. Wellington: Ministry of Education. Available at www.educationcounts.govt.nz/publications/series/2515

The University of Waikato: Te Kōtahitanga: http://edlinked.soe.waikato.ac.nz/departments/index.php?dept_id=20&page_id=2639

Wink, J. (2000). *Critical Pedagogy: Notes from the Real World*, 2nd ed. New York: Longman.

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