

Introduction

He Kupu Whakapuaki

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Who are these learning materials for?

These learning materials are intended for inservice teacher educators (ISTEs¹): those who assist classroom teachers and school leaders in their professional learning and development. In New Zealand, ISTEs may be based in or outside schools and within English- or Māori-medium settings. They include advisers and facilitators from the seven major universities, resource teachers, facilitators from private provider organisations, and in-school leaders of professional learning.

The materials discuss generic areas of ISTE knowledge and expertise and examine what effective ISTE practice and learning look like and how they may be achieved. While the primary audience for the materials is ISTEs, others involved in inservice teacher education, such as school principals and managers of provider institutions, may also find them helpful.

Why focus on ISTE professional learning and practice?

Inservice teacher educators in New Zealand work in a complex and rapidly changing environment. Within this dynamic setting, ISTEs' fundamental purpose remains constant: to support teachers to learn and improve their practice in ways that will lead to improved student outcomes. In doing so, ISTEs support the Ministry of Education to achieve its overarching outcome of:

A world-leading education system that equips all New Zealanders with the knowledge, skills and values to be successful citizens in the 21st century.

Ministry of Education, 2007

ISTEs are well aware of the central problem in New Zealand education: that while on average New Zealand students perform well by many international measures, there is a persistent pattern of underachievement for some groups of students. This concern has implications for all educators. It is an important aspect of the context in which we work, and it unites and focuses our efforts to learn and improve.

¹ The abbreviation ISTE is used throughout the materials.

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In recent years, the Ministry of Education's Iterative Best Evidence Synthesis Programme has produced a series of publications that draw together bodies of research evidence to explain what works to improve student outcomes and why. A key finding reported in Alton-Lee's (2003) synthesis *Quality Teaching for Diverse Students in Schooling* is that:

what happens in classrooms through quality teaching and through the quality of the learning environment generated by the teacher and the students is the key variable in explaining up to 59% or even more of the variance in student scores.

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If teaching is the greatest system influence on student outcomes, then it seems reasonable to assume that effective professional learning opportunities for teachers lead to improved student outcomes. The *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration* (TPLD BES – Timperley, Wilson, Barrar, and Fung, 2007) is founded on this assumption. It explores the question "What kinds of professional learning opportunities for teachers result in an impact on student outcomes?" (page 1).

These learning materials rest on a related assumption, one that INSTEP² examined and finally proposed as a principle: Effective ISTE practice and learning lead to improvements in teacher practice and student outcomes. Research evidence from INSTEP (Higgins, 2008) and the TPLD BES supports this principle.

Taken together, these assumptions form a "chain of influence". This chain links effective professional learning opportunities for ISTE to effective ISTE practice, which in turn supports ongoing teacher learning and changes in teacher practice, leading to improved student outcomes. However, in suggesting influential relationships between the work of ISTE, teachers, and students, we must recognise the "black boxes" in the chain.

In education, considerable effort has been directed at understanding the "black box" between acts of teaching and what students learn. There is no direct relationship between teaching inputs and student learning because how students interpret and utilise the available information determines what they learn.

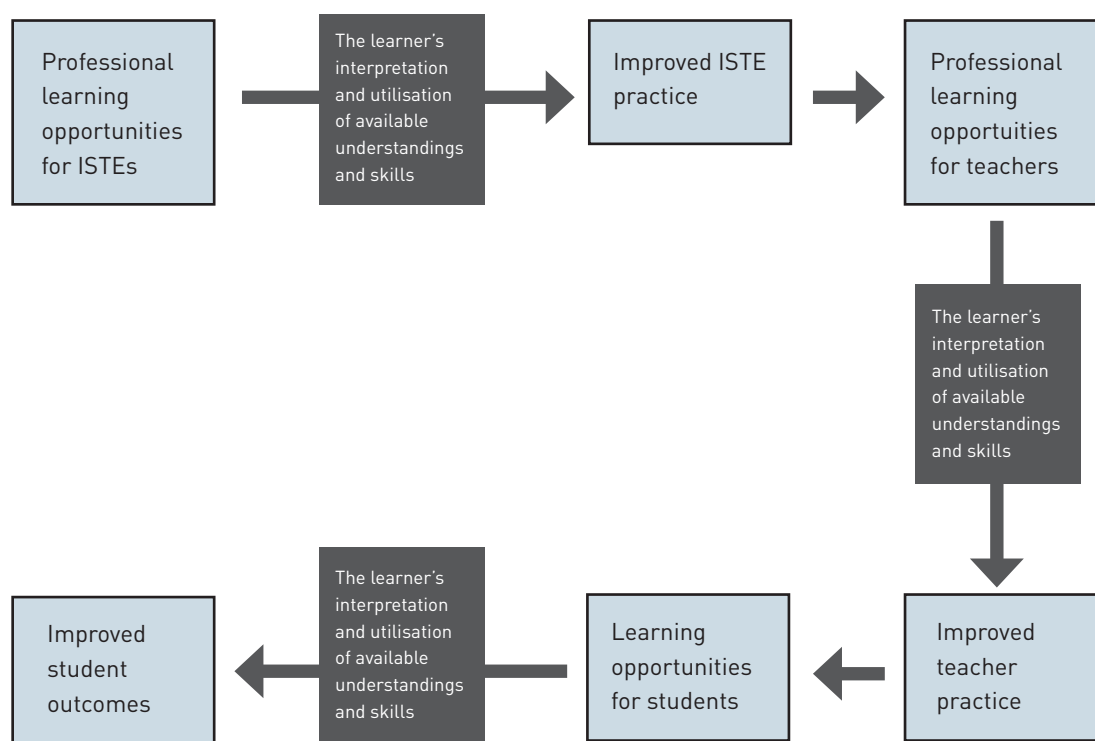
... a second black box is ... situated between professional learning opportunities and their impact on teaching practice. Little is known about how teachers interpret the understandings and utilise the particular skills made available through professional learning opportunities, and about the consequent impact on teaching practice, except that the relationship is far from simple. How teachers change their practice, of course, impacts on student outcomes.

Timperley et al., 2007, page 7

Figure 1 illustrates this discussion.

² See the next section ("How were these materials generated?") for a description of the INSTEP project.

Figure 1: A chain of influence: ISTE learning to student outcomes³



These materials are intended as a resource to help ISTE address the critical question that arises from this chain of influence: “What are the ways to learn and to improve our practice that will impact deeply on teachers’ practice and lead to improved student outcomes?”

How were these materials generated?

These learning materials were developed as part of the INSTEP (Inservice Teacher Education Practice) project, a Ministry of Education, New Zealand-wide research and development initiative about the learning and practice of ISTE. INSTEP involved approximately 400 ISTE and researchers from 2005 to 2008 and had three key objectives:

- to explore and develop effective approaches for the professional learning of inservice teacher educators;
- to strengthen and promote evidence-based inservice teacher education practice;
- to support professional leadership and ongoing improvement within the inservice teacher education sector.

³ Adapted from Timperley et al. (2007), page 7. Although this diagram doesn’t attempt to show it, the influence is of course not just one way; feedback and self-regulation result in learning and changes in practice for the “providers” as well as the “recipients” of learning opportunities.

These materials are intended to help ISTE address the critical question “What are the ways to learn and to improve our practice that will impact deeply on teachers’ practice and lead to improved student outcomes?”



These learning materials embody both the learning from INSTEP and current national and international understandings about ISTE practice and learning. Their development was an integral part of the research and development approach of INSTEP. As a result, they were constantly critiqued by the INSTEP national team⁴ and representatives from the education sector, and during their development, they both informed and were informed by INSTEP's research activities.

The process for developing the materials was as follows:

- The INSTEP national team drew on a needs analysis from colleagues in the field, along with relevant research and their professional experience, to develop, in early 2006, a draft conceptual framework for the professional practice of inservice teacher educators.
- Five members of the national team worked with an independent writer to “unpack” the framework, with the full national team providing regular guidance and feedback on successive drafts. A resulting draft set of materials was published in October 2006.
- A pilot learning case (Case 6 in these materials) was filmed and constructed as a website in early 2007, and the remaining five learning cases were then developed. All cases emerged from the research work of INSTEP and were selected according to agreed criteria, with subsequent development led by advisory groups.
- All the materials (including the cases) were trialled by ISTEes and evaluated by a panel consisting of recognised authorities in the field and representatives from the education sector.
- The materials were extensively revised as a result of feedback from the evaluations and then published in hard copy, as a CD-ROM, and as a website.

What do these materials consist of?

As discussed above, these materials were developed during INSTEP's research and development activities. They are by no means a definitive statement of all there is to know about effective ISTE practice and learning. Instead, they are intended as a springboard for further learning, and they are subject to improvement as the knowledge base about effective ISTE practice and learning continues to grow.

The materials model the integration of theory and practice that is so critical for ISTE learning. There are six key components, each with a different purpose as outlined in the table below and each containing internal cross-references and external links to further information.

These learning materials are published in three formats – as hard copy, as a CD-ROM, and as a website (www.instep.net.nz). The CD-ROM and the website contain all the material in the hard copy and, in addition, they include full learning cases.

⁴ The national team comprised the national facilitators, the national research co-ordinator, and the Ministry of Education INSTEP project manager and senior advisor.

Components of *Ki te Aotūroa*

<p>A Proposed Theory of Improvement for ISTE</p> <p>Tērā Tētahi Ariā ISTE Whakapakari</p>	<p>This chapter presents a possible theory of improvement for ISTE. It shows the processes that are involved in achieving improvements in ISTE practice, which, in turn, lead to improvements for teachers and students.</p>
<p>Learning Cases</p> <p>Ngā Taurira Ako</p>	<p>Six learning cases provide examples of ISTE inquiring into their practice and encourage users to examine their own beliefs and practice in relation to what they see in each case. The cases are accessed via the CD-ROM or website and include:</p> <ul style="list-style-type: none"> • evidence of practice derived from video recordings and transcripts; • written and videoed reflections; • perspectives on the case from experts in the field; • reflective questions for users; • suggestions for engaging with related literature and research.
<p>Conducting Inquiry</p> <p>Te Whakahaere Urupounamu</p>	<p>This chapter presents an inquiry and knowledge-building cycle for ISTE that builds on the “Teacher inquiry and knowledge-building cycle” proposed in the TPLD BES and that is consistent with the findings from INSTEP’s research activities. The chapter aims to provide practical guidance on “how” to inquire: it describes each phase of the inquiry cycle, discusses meeting the needs of diverse learners within inquiry, and outlines some of the approaches an ISTE might use while engaging in inquiry learning.</p>
<p>Areas of ISTE Knowledge and Expertise</p> <p>Ngā Wāhanga o te Mātauranga ISTE</p>	<p>The chapters on Inquiry and Evidence-based Practice, Knowledge and Theory, Communication and Relationships, and Change for Improvement represent four generic areas of ISTE knowledge and expertise. Together they make an important contribution to what Timperley et al. (2007) refer to as “provider pedagogical content knowledge”.</p> <ul style="list-style-type: none"> • Each chapter begins with a general discussion of the relevant knowledge and expertise before discussing specific implications for ISTE practice. • Learning stories and links to the learning cases help readers to connect theory and practice and to see how different aspects of ISTE knowledge are integrated when applied in practice. • Sidebars provide cross-references and additional information on some topics. • Reflective questions are intended to stimulate thought and discussion. • Each chapter ends with a suggested activity for readers.
<p>Recommended Reading</p> <p>Ngā Pepa hei Pānuitanga</p>	<p>This section presents summaries of readings that were particularly influential in the writing of these materials or in the research activities of INSTEP.</p>
<p>Appendices</p> <p>Ngā Tāpiritanga</p>	<p>Two appendices provide summaries of thinking and research on learning theories and on professional learning communities.</p>

How might you use these materials?

The three formats for the materials allow for a variety of uses. The hard copy is relatively portable and makes for easier engagement with longer passages of text, but it only provides summaries of the learning cases. The CD-ROM is essential for accessing the learning cases and their video clips and for activating the many hyperlinks throughout the materials (to all websites and as indicated by underlining in the printed text). At the time of publication, the website is identical to the CD-ROM; however, in time it may include a number of interactive features, such as a moderated forum and opportunities for users to share their own cases.

These learning materials should be used in a variety of ways and contexts. They are not meant to be read through or viewed in one sitting. Rather, it is envisaged that you and the communities of practice you work in will draw on particular sections while examining your beliefs and assumptions and while investigating specific questions or problems within the context of your own practice.

The materials should lead you to integrate theory and practice, both as you work with the materials and as you inquire into your own practice and learning. They should support your professional learning as ISTE and assist you to explore and challenge your practice in ways that enable you to make your own contributions to the shared evidence base for effective ISTE practice and learning.

In making sense of the materials, you should approach them critically, adopting the inquiry-focused ways of thinking that they articulate, questioning what you read and view in light of your own knowledge and experience and, while recognising the complexity of ISTE learning and practice, always looking for evidence of effectiveness.

The principles of ISTE professional learning and practice emphasise the importance of collaborative relationships within ISTE learning (see page 25). Although, as an individual ISTE, you may make frequent and valuable use of these materials, the most significant learning will occur when you use them within communities of practice. The section below is intended to support those who agree to lead or co-ordinate such communities.

Leading ISTE learning

As in any learning context, working with these materials will engender a range of responses from users. The TPLD BES lists six possible responses to new information, ranging from rejection to substantive improvements in practice (Figure 2.3). The challenge for group leaders is to foster an environment in which group members trust and support one another and are open to change. Then in working with the materials and collaboratively inquiring into their practice, the aim is that ISTE will “actively engage with, own and apply new theory and practice and change practice substantively” (Timperley et al., 2007, page 14).

You will need to clarify with group members:

- the purpose for working with a particular case or some other section of the materials and how this work will support their learning;
- the protocols and processes the group will use – for example, how members will deprivatise their practice;
- how the group will engage with a case or other section of the materials – for example, whether it will meet for several brief sessions or for one lengthy session.

Although, as an individual ISTE, you may make frequent and valuable use of these materials, the most significant learning will occur when you use them within communities of practice.

There are many ways to start working with these materials, but you will probably find it most profitable to begin with a learning case, especially if you or your group have not had much experience of engaging with theoretical ideas.

The following sections provide some ideas for getting started. They are organised under the main components of the materials and describe some of the features that will help ISTEes to make the best use of the materials.

A Proposed Theory of Improvement for ISTEes

This section provides a strong basis for group discussions and for ISTEes to explore what they believe underpins their learning and improvement. To begin, it may be helpful to elicit group members' current understandings of the concept of a theory of improvement. They could then discuss their understandings of the proposed theory and perhaps analyse examples of learning and improvement from their own practice in relation to the theory. At a later date, they could read pages 159–172, which provide theoretical perspectives on developing a common theory of improvement. The reflective questions in that section may help them to explore some of these ideas and to begin to develop a theory of improvement that more accurately reflects their own beliefs about learning and change.

Learning Cases

The six learning cases are complex, and some of them are very full (for example, Cases 3 and 4). As a leader of learning, it's vital that you know and understand a case that your group has decided to work through, so you will need to explore the case fully and to read the notes about it before the group meets.

Your group may find it helpful to begin with a brief overview of the case, in which you might highlight:

- the purpose of each screen and its relationship to the inquiry cycle for ISTEes;
- the role of transcripts, hyperlinks, and external perspectives;
- the distinction between the left- and right-hand sides of each screen and the two different kinds of questions they pose:
 - questions about the practice and learning of the participants in the case;
 - questions about users' own practice and learning in relation to what they've read and seen in the case.

The format of the cases presents one possible approach for exploring the cases and linking their content to ISTEes' own practice situations. Many other approaches are of course possible; you and your group should feel free to adapt what's there or to adopt different approaches that better suit your circumstances. If you are not adapting the case content, you will get the most from the case if you work through it from start to finish – that is, in the order in which it's presented.

The ISTEes in your group will bring a wide range of beliefs to the cases; there is no expectation that they will agree with the beliefs of case participants or hold the same beliefs; the important point is that they surface and acknowledge their beliefs, just as case participants have.

Conducting Inquiry

The inquiry and knowledge-building cycle that this chapter presents is key to these materials and provides the basic structure for the learning cases. Ensure that your group takes time to unpack the cycle. Any one of the questions on partnership, protection, or participation on page 51 will lead to rich and challenging discussion; so too will a close look at one of the inquiry approaches (pages 52–73) and its implications for the learning and practice of group members.

See also the section Learning Cases (pages 27–42) for information on the structure of the cases and notes on each case.

When working with the suggested inquiry approaches, you will find them most helpful if you access the CD-ROM and Internet in order to activate the many hyperlinks to the learning cases and to sources of additional information.

Areas of ISTE Knowledge and Expertise

The four core chapters – Inquiry and Evidence-based Practice, Knowledge and Theory, Communication and Relationships, and Change for Improvement – provide an overview of current thinking and research in these generic areas of ISTE knowledge and expertise. As each chapter covers a large body of knowledge, your group will probably find it most profitable to concentrate on a subsection that relates to the focus of its discussions. Within this, the group may find it valuable to:

- use the learning stories and links to the learning cases to make connections between theory and practice;
- respond to the reflective questions in the sidebars: these are intended to provide a catalyst for discussion, but those questions that emerge as group members read and discuss the text will be equally valuable;
- locate and read the key articles or book chapters that are referred to in the text or sidebars.

The “Implications for ISTE practice” that end each chapter challenge ISTEes to consider how they might apply the ideas discussed in the chapter and include a suggested activity in relation to these ideas.

References

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

Higgins, J. (2008). *Synthesis of the Outcomes of the Inservice Teacher Education Practice (INSTEP) Project*. Wellington: Ministry of Education. Available at http://professional-learning.tki.org.nz/informing_your_thinking

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