

PART II

Developing and Supporting Teacher Effectiveness



CHAPTER 9

Developing Teacher Effectiveness through Professional Conversations

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Introduction

Formal and informal conversations with colleagues and leaders about professional activities within schools form the oil that both creates and carries meaning about what it means to be effective. Schools are places of intense activity, and the interpretive conversations that accompany it largely determine whether these activities simply form part of the organizational routines or form opportunities for teachers to learn and improve. The focus of this chapter is on designing conversations that promote professional learning in ways that impact on student learning and achievement.

Conversations need to be crafted carefully and deliberately if they are to realize their power in this professional learning role. One of the major challenges is to interrupt the flow of something so innate to our development. Through daily practice since childhood our neural networks have become patterned in ways that determine what we attend to and how we respond (Mujis et al., in press). Changing the automaticity of our conversations requires changing this patterning—not an easy matter. While this issue of interruption is common to all professional conversations and the principles are similar, in this chapter I will focus specifically on crafting conversations around the observation of practice for the purpose of developing teaching effectiveness.

Approaches to professional conversations abound in the literature, so how is this one different? It is grounded in widely recognized theories of learning, of interpersonal effectiveness, and of professionalism. In addition, it has evolved through a lengthy research and development program linked specifically to substantial improvements in student learning, particularly for those not achieving well in our education systems. Each of these aspects will be described in turn.

Theories of Learning

The theories of learning I draw on in this chapter emphasize four principles. The first is the importance of engaging prior conceptions of practice (Bransford, Brown, & Cocking, 1999). Just as students arrive in classrooms with preconceptions of how the world works, so do their teachers. Bypassing these preconceptions runs the risk of teachers rejecting new information about improving practice because it does not fit with what they currently believe. Alternatively, new information is incorporated into existing conceptual frameworks and understood at a superficial level only, with changed practice more likely to resemble previous practice than the intended change (Bransford et al., 2005).

The second principle focuses on developing a deep foundation of knowledge in the context of a conceptual framework organized in ways that facilitate retrieval and application of that knowledge (Bransford et al., 1999). For knowledge to be structured into conceptual frameworks, it means connecting and organizing it around important ideas together with the patterns and relationships between different aspects of these ideas. All this adds up to deep understanding. This principle is clearly linked to the first in that both involve conceptual frameworks. The first principle engages and frequently challenges the knowledge and structure of those frameworks, while the second specifically focuses on developing them. For teachers, the knowledge of focus is usually pedagogical content and

assessment knowledge, together with that of promoting students' well-being.

The third principle recognizes the social nature of learning (Dumont, Instance, & Benavides, 2010). Knowledge construction occurs through processes of interaction, negotiation, and cooperation. The human brain is wired for interaction and this is how we learn. The fourth principle focuses on the importance of learners (in this case teachers) being proactive and developing ownership and responsibility for learning and improvement through meta-cognitive and self-regulated learning processes. This principle draws on the literature in cognitive science (Vosnaido, 2007), feedback (Hattie & Timperley, 2007), and learning (Bransford et al., 1999) with increasing recognition of its importance for any learner.

Theories of Interpersonal Effectiveness

While theories of learning can apply to a range of contexts, conversations are essentially about interpersonal processes. Those underpinning the model outlined in this chapter were first developed by Argyris and Schon (1974) and subsequently developed by others (Robinson, 2011; Timperley, 2001). The essence of these values involves developing openness to learning through valid information about aspects of a situation, respect of self and others through seeking to understand each others' viewpoints, and developing internal commitment. These interpersonal processes complement the learning theory principles above. New knowledge is co-constructed through respectful interactions. Internal commitment is developed through self-regulated learning.

Theories of Professionalism

What is the purpose of focusing on learning and effective interpersonal processes? Clearly, an immediate purpose is to improve teaching practice in the interests of students. Such improvement, however, should sit within a wider understanding of what it means to be professional in order to give it direction and coherence. The theory of profes-

sionalism underpinning the model outlined in this chapter is that of adaptive experts (Hammerness et al., 2005; Hatano & Oura, 2003). In essence, adaptive experts constantly review their practice in terms of its effectiveness for all students. They are deeply knowledgeable about both the content of what is taught and how to teach it. They are aware of their assumptions underpinning their practice and know when they are helpful and when to question them and, if necessary, to let them go. They become expert in retrieving, organizing, and applying professional knowledge in light of the challenges and needs presented by the students they teach. Adaptive experts engage in ongoing inquiry and knowledge building to work out when their routines of practice do not work for students and they know from where to seek help (Timperley, 2011). Given the social nature of learning, it is difficult for teachers to develop adaptive expertise unless they work in schools that foster and support their learning. This means that school leaders must work toward ensuring the whole school has a shared view of professionalism.

Adaptive expertise can be best understood by contrasting it with routine expertise. Both kinds assume people learn throughout their lifetimes. Routine experts and schools with routine expertise learn how to apply a core set of skills and routines with greater fluency and efficiency. Notions of routine expertise are based on assumptions that novice teachers become expert through supported practice (Dall'Alba & Sandberg, 2006). Skill development follows a general pattern of an initial phase of survival and rule-following, one or more intermediate stages showing greater flexibility, experimentation and consolidation, and a final phase of mastery and fluency. The emphasis is on procedural efficiency (Hammerness et al., 2005). The main contrast with adaptive experts is that routine experts do not necessarily develop a routine central to developing adaptive expertise, that is, systematically examining practice for its effectiveness and seeking new knowledge and skills when problems become evident. Thus changing demographics, new technologies, and the like are incorporated into existing routines rather than serving to challenge the efficacy of those routines.

The Research Base

The empirical research on which this chapter is based involved a research and development program in three cohorts of schools in New Zealand, with over 100 schools in each cohort where large gains for students' literacy achievement were replicated.¹ While the work in the schools was multifaceted, as most improvement initiatives are, the teachers involved consistently rated the conversations they had with those facilitating their professional learning around observations of their practice as being the most powerful lever for improvement (Timperley, Parr, & Hulsbosch, 2008).

The research evolved over three phases with a development focus taking place in between. The first phase involved transcription analysis of leaders' and coaches' feedback to teachers and interviews of participating teachers. The findings were consistent with other research in the area that has repeatedly highlighted that conversations involving giving feedback (Feiman-Nemser, Parker, & Zeichner, 1993), discussing difficult issues (Argyris, 1991; Robinson, 2011), and appraising teachers typically do not achieve the intended results. These conversations usually suffer from obscure messages in ways that minimize concerns and difficulties (Wajnryb, 1998), from dominance of one party through stating untested assumptions about what is leading to what as if the assumptions are the truth (Argyris & Schon, 1974), or from advice giving that is not necessarily understood or valued (Timperley, Parr, & Hulsbosch, 2008).

¹ After taking into account the average expected gain, the average effect size for the final cohort of the three was 0.44 for reading and 0.88 for writing on a nationally normed assessment. This equates to a rate of progress 1.85 times greater than usual for students in schools with a reading focus, and 3.2 times the usual rate for those in writing schools. The rate of progress for those students beginning in the lowest 20% was even larger, with an effect size of 1.13 for reading, and 2.07 for writing (Timperley, Parr, & Meissel, 2010). These gains equate to progress of 3.2 times expectation for the lowest 20% of students for reading, and 6.2 times expectation of students for writing. The effect sizes were calculated using Cohen's *d* (1988) with Hedge's correction (Timperley, 2011).

Following this first phase of the research, training was provided to the coaches responsible for promoting professional learning in the participating schools. The training focused on improving the interpersonal processes consistent with the values outlined above between the coaches and teachers about the observation of practice. These revised conversations resulted in interpersonal processes more consistent with the values outlined above with high ratings of usefulness given by the participants (average 5.5 on a 6-point scale). However, closer analysis of transcripts of these 50 conversations showed limited engagement of teachers' existing beliefs and a primary focus on practical advice rather than the development of deep knowledge situated within conceptual frameworks. Consistent with this practical orientation was a focus on "next steps," rather than the development of self-regulated learning with a focus on the monitoring of effectiveness of any changes to practice that is so fundamental to adaptive expertise.

A second phase of training was based more explicitly on theories of learning for the development of adaptive expertise. The change in label for the activity from "observation and feedback" to "practice analysis" reflected the change in approach. Observation and feedback imply a unilateral process whereby one person observes another, then delivers feedback. Practice analysis, on the other hand, implies a more co-constructed process in which both participate in analyzing practice for the purposes of improvement. Analysis of the ensuing 60 transcripts and questionnaires showed improvement in interpersonal processes, engagement of teachers' current beliefs and understandings, and the building of deep knowledge within cognitive frameworks in ways that promoted self-regulated learning. Teachers' ratings of usefulness remained as high as in the earlier phase.

In the remainder of this chapter, I will first briefly describe the practices associated with the interpersonal values outlined above, then describe the practices, with examples, designed to promote the four learning principles consistent with this idea of adaptive expertise.

Interpersonal Processes

The values underpinning the interpersonal processes identified by Argyris and Schon (1974) and subsequent work of Argyris (1990) are well known, so I will summarize their position very briefly. Perhaps best known are those of Model One, sometimes referred to as “defensive conversations” and Model Two, often referred to by others as “learning conversations” (Robinson, 2011; Timperley, 2001). Table 9.1 summarizes the differences between governing values that are usually thought of in these conversations.

TABLE 9.1 Defensive and Learning Conversations Summarized and Adapted from Argyris (1993)

Value	Model One or “Defensive” Conversations	Model Two or “Learning” Conversations
Giving help and support	Telling others what you believe will make them feel good about themselves.	Increasing others’ capacity to learn how to be more effective.
Mutual respect	Deferring to others and not confronting their reasoning or actions; expecting others to defer to you.	Attributing to self and others a high capacity for self-reflection and ability to take responsibility for their learning.
Integrity	Sticking to your principles, values, and beliefs.	Advocating your principles, values, and beliefs in a way that invites inquiry into them and encourages others to do the same.
Maximizing valid information	Thinking of evidence as self-evident.	Thinking of evidence as something that needs to be interpreted because it is likely each participant will have a different interpretation.
Inquiry	Asking a lot of questions.	Expressing your views and the reasoning behind them, then checking to see whether they are shared and asking the other person to explain his or her views.

A typical example of a Model One defensive conversation in the situation of a coach giving feedback to a teacher following the observation of a lesson might include opening the conversation with positive comments about the lesson (giving help and support) followed by a series of questions asking how the teacher thought the lesson went (inquiry). Often the questions become more specific around an area of concern that the observer wants the teacher to notice as a problem in the hope that the teacher will also recognize it as such (maximizing valid information). The reason given for this kind of questioning is that the teacher is more likely to “own” the problem if he or she names it (mutual respect). In reality, this opening is often about wanting the teacher to say what the observer is not prepared to say, thus averting the possibility of upsetting them (giving help and support). If the teacher acknowledges this is something that he or she could work on, further analysis is avoided, including the reasons why it might be a problem (mutual respect). Rather, the observer offers suggestions for change with implementation of any one of them left to the discretion of the teacher (mutual respect).

The other version of Model One is guided by the values of retaining control in a way that maximizes winning and minimizes losing (Argyris, 1991). These values often come to the fore when the teacher does not identify the observer’s concern so the observer gives suggestions to the teacher about how to improve without establishing if there is agreement about the concern or whether the teacher believes improvement is needed. When potential disagreements look like they might arise, they are skipped over quickly to maintain a more positive emphasis on what should be done from the perspective of the observer. Both these approaches to feedback conversations were evident in the phase one transcripts of the research into classroom observations and feedback.

In contrast, an important strategy in the Model 2 learning conversations is to co-construct understandings to develop shared meaning throughout the conversation. The co-construction applies to all aspects of the conversation, whether it is setting an agenda about the purpose and process of the conversation, undertaking an analysis

of the evidence relating to the observed practice, or deciding how to improve it. Developing shared meanings involves revealing thinking and this can be difficult because it is difficult to surface long-held assumptions that have become buried in our subconscious. One way in which meaning can be co-constructed to promote mutual learning consistent with the values for learning conversations in Table 9.1 is for each person to:

- Provide their point of view
- Give the grounds for holding that point of view
- Inquire into the other's actions and the thinking underpinning those actions
- Check their own and others' understandings
- Evaluate and critique the thinking underpinning each point of view
- Seek to establish common ground (if disagreements persist, develop a way to test the validity of each point of view)
- Plan from there

(Robinson, 2011)

So the conversation above would be reconfigured to begin with setting an agenda for the purpose of the conversation and the process for meeting it with the reasons for this process checked for understanding and agreement (integrity, inquiry). A decision would be reached on the focus of the practice to be analyzed with reasons and/or evidence for doing so again checked and agreed (integrity, inquiry). The evidence, for example, might be that when the observer interviewed selected students, they did not appear to understand a particular aspect of the concept being taught. Possible interpretations of the evidence (maximizing valid information) and the links between the evidence relating the students' understanding and the teachers' practice would be discussed until a shared understanding of what was leading to what was agreed (mutual respect).

If disagreements emerge, then more time would be spent inquiring into each point of view and the reasons for it, thus progressing toward identifying what is shared and what is in disagreement. If the

disagreements are important, then some way of testing the validity of each would be worked out together (mutual respect). When discussing how alternative practices might help students' understanding (giving help and support), suggestions would be checked for their feasibility in the particular teacher's context (inquiry). The ensuing plan would be checked for commitment to enact it.

Processes more consistent with this latter example were more evident in the phase two transcripts following the learning conversation training. The issues that became evident, however, were limited engagement of teachers' existing beliefs and reasons for their practice, a primary focus on practical advice for "next steps" rather than the development of deep knowledge of practice within conceptual frameworks, and examining the effectiveness of practice in terms of teaching independently of its impact on students. All three of these attributes are essential to developing adaptive expertise. Learning theory frameworks were, therefore, brought to bear to inform the conversations in a subsequent phase of training and the third round of 60 transcripts for the research analysis.

Building Knowledge and Promoting Self-regulated Learning

The challenge to build knowledge within conceptual frameworks through conversations required much deeper engagement with the reasons underpinning teachers' practice and for the practical knowledge to be linked specifically to the theoretical frameworks. One way to do this is for the observer to co-construct criteria for effective practice with the teachers in the area of focus and then analyze the observed practice using these criteria. To be robust, the criteria need to be linked to wider theories and research of effectiveness, not just to those believed to be important by the participants, or else it is inconsistent with developing adaptive expertise. Understanding these kinds of theory-practice links are central to developing teachers' deep pedagogical content and assessment knowledge.

Practice cannot be considered effective, however, no matter how closely it adheres to a set of theoretically informed "ideal" criteria

unless it is responsive to the participating students and promotes their learning. The worth of the co-constructed criteria in practice, therefore, need to be judged in terms of how students are responding and learning—again a central tenet of adaptive expertise.

The challenge of structuring conversations to promote self-regulated learning requires the effectiveness of practice to be monitored in terms of learning goals (Butler & Cartier, 2004; Zimmerman, 2001). The importance of learning goals for students is well established. It is similarly important for their teachers, but in their case they must be linked to student learning goals if they are to make a difference. Goals on their own, however, are insufficient to ensure the learning of adaptive experts. The conversations, therefore, need also to promote monitoring of the goals and to help the teacher judge whether any changes in practice are more effective than what they were doing before (Zimmerman, 2001).

Practice Analysis Conversations

This section sets out the protocols for the conversation with examples. These protocols were developed and extensively trialed with an additional 60 coach-teacher transcripts collected to check the efficacy of the protocols. The conversations are structured into three parts, although in natural settings Parts Two and Three are frequently mixed with one another. What is more important is that the values of the interpersonal processes and key features of the learning theories are evident.

In brief, the first part involves a pre-observation conversation to set the scene and develop criteria for effectiveness. The importance of this aspect became increasingly evident through the development phase of the research when those involved found it essential to providing the foundation for the observation and the following conversation. The second part involves a co-constructed analysis of practice using the pre-observation conversation as the basis. The third involves the identification of possible new practices and how the teacher would monitor them in terms of their effectiveness for students.

Pre-observation Conversation

The protocols for the first part (see Table 9.2) combined the interpersonal values identified above with the learning principles. The specific order is not important; what is important is that the conversation is consistent with the interpersonal and learning values outlined above and is focused on practice. When reading the example for all parts, it is important to note the following:

- Questions are accompanied by a reason for asking them (inquiry, maximizing valid information)
- The observers' thinking is revealed and checked (integrity, maximizing valid information)
- Each illustrated probe question is followed by further discussion in relation to the teachers' responses—the questions are not intended to be asked one after the other in an automated way (mutual respect, inquiry)
- Ongoing checks are made for agreement and understanding with inquiry invited (mutual respect, integrity)

The Analysis of Practice

The professional learning goal and criteria developed for effective practice form the basis for constructing a schedule for the observation. There may be other aspects agreed upon, but these need to be limited if deep knowledge is to be constructed within conceptual frameworks. Typically, it is possible to cover only one or two areas without creating cognitive overload, with specific goals more effective than general goals (Butler & Cartier, 2004). Similarly, the analysis of practice following the observation has a set of protocols based on the theoretical frameworks outlined above (see Table 9.3).

Co-constructing New Practice

The third part of the conversation relates to the co-construction of new practice (see Table 9.4). It is co-constructed in the sense that both participants contribute possibilities consistent with the criteria for

TABLE 9.2 The Dimensions of a Practice Analysis Conversation Prior to Observing Practice

Dimension	Reasons for this Dimension	Possible Example
<p>Develop purpose and process of the three parts of the conversation. Agree on the organizational issues, e.g., when to meet, what to bring, etc.</p>	<p>Puts everyone on the same page with respect to purpose and process.</p>	<p><i>Ok, so this conversation is to have a look at what we're going to focus on when I come in and observe your writing lesson. The idea is to work out the learning goals you have for your students and yourself. Then after the observation, we'll have a look at how things went and what your next steps might be. Is this what you thought? ... Do you have any suggestions or concerns? ...</i></p>
<p>Identify the specifics of intended student learning during the observed activity and how it is to be achieved.</p>	<p>Identifies student learning goals. Develops understanding of, and engagement in, teachers' reasons underpinning practice.</p>	<p><i>I need to understand the learning goals for your students so I understand what is happening when I come in. Can you just walk me through the goals and how you have structured your lesson to achieve them?</i></p>
<p>Identify which students will be the focus during the observation.</p>	<p>Ensures both observer and teacher are on the same page and the observation is linked to specific student learning goals.</p>	<p><i>Is there a group of students you are finding particularly challenging because if I focus on them I may be more helpful in moving things along for both you and them?</i></p>
<p>Identify the impact of teaching so far with evidence—students' strengths and needs.</p>	<p>Further deepens understanding of reasons underpinning student learning goals and teaching practices intended to address them; possible basis of further evaluation and critique with the focus on students.</p>	<p><i>So you want me to focus on this group because ... Can you tell me about what these students already know in relation to ... [this goal], and how you know, so I can understand the specifics of what you are trying to achieve and how ...</i></p>
<p>Identify ways to establish if students are learning what they are supposed to be learning.</p>	<p>Ensures that the effectiveness of practice is assessed in terms of student learning and that evidence is collected on this.</p>	<p><i>How will I know if these students are learning what you are intending for them to learn?</i></p>

TABLE 9.2 (cont'd)

Dimension	Reasons for this Dimension	Possible Example
Co-construct teacher's goal for own learning (linked to promoting student learning).	Identifies professional learning goal to monitor progress in the analysis of practice and promote self-regulated learning. Based on the value of mutual respect that attributes a high capacity to learn.	<i>So you are not sure how to help the students use ... in their writing. You've assessed them and the structure is strong but ... is not so strong. You think if you improve your modeling of this aspect it will help. I agree modeling can be a very powerful way of teaching this aspect of writing. So let's make this your goal.</i>
Co-construct the criteria for effective practice in relation to teachers' learning goal (linked to the students' learning goal).	Establishes theory-practice links by situating the specifics of practice in a conceptual framework of effectiveness; provides the basis for analysis following the observation. Based on the interpersonal value of mutual respect that attributes a high capacity to learn.	<i>Let's work out what counts as effective modeling. I'm sure you've got some ideas and I have some too. (May need to refer to research or other authoritative work to ensure criteria are justified in terms of a wider knowledge base than that of teacher and observer.) Firstly, you would ...</i>
Identify what the criteria will look like in the observed lesson.	Reverses the process above and situates the theory in the specifics of the observed lesson to deepen theory-practice links and develop deep knowledge within conceptual frameworks.	<i>We need to think about how these criteria will look like in tomorrow's writing lesson so we are both noticing the same things. Let's work out the specifics ...</i>

TABLE 9.3 The Dimensions of a Practice Analysis Conversation for the Analysis of Practice

Dimension	Reasons for the Dimension	Example
Revisit the criteria for effective practice in relation to teacher's goal.	Reminder of the criteria to build knowledge within conceptual frameworks.	<i>So I focused on your modeling of ... with this group of students so they could do ... in their writing. We agreed before the observation that effective modeling has Is there anything that you want to add here?</i>
Jointly analyze illustrative parts of the lesson using the criteria and students' responses as a guide.	Illustrative parts allow focus on the new learning. Reasons link the specifics of practice into the conceptual framework provided by the criteria. Joint analysis is based on mutual respect and a high capacity to learn.	<i>There were several times you modeled ... for the students. They are all rich examples ... Is there a time you particularly wanted to focus on? Ok, we've got the criteria here, so let's work through what you did and how the students responded and see if this mix can help us decide what went well and not so well.</i>
When analyzing the lesson, probe and examine what led teachers to do what they did during the illustrative parts of the lesson.	Further exploring teachers' reasons for underpinning their practice so that any new suggestions (next part) can be linked to current understandings.	<i>"I noticed you did ..., I was wondering what led you to do that?" "Can we clarify what each of us means by ..., because I'm not sure we are on the same page?"</i>
Effectiveness related to impact on students	Reminder that practice is only effective in terms of the extent to which it has a positive outcome for students.	<i>The way you modeled ... did fit the criteria we worked out but the group didn't seem to get it, so there must be something else going on that we need to figure out.</i>

TABLE 9.4 The Dimensions of a Practice Analysis Conversation Co-constructing New Practice

Dimension	Reasons for the Dimension	Example
Co-construct new practice based on previous analysis and criteria for effectiveness (revise criteria if appropriate).	Reference to criteria develops deep knowledge within conceptual frameworks. Co-construction gives help and support while maximizing valid information.	So let's look at what this all means for you next time you model a writing strategy. We've revised the criteria we worked out initially because they didn't quite capture what was needed for these students. You found you needed to also ...
Reasons for new practice referred to underpinning theoretical ideas/theories.	Develops theory-practice links within conceptual frameworks.	We've worked out some strategies, but I just want to go back and check the bigger picture to make sure we are on track in terms of why those strategies and not others ... Let's start with ...
Understanding/feasibility of suggestions for new practice checked.	Contextualizes theory in the specifics of practice. Promotes self-regulated learning and ownership for improving practice.	The big question is, "Will this work for you with these students?" There is no point in developing grand ideas that won't work for you in your situation. Let's talk about how you can actually do it.
New practice linked to other students/other areas of the curriculum.	Aids in transferring specific knowledge of situation to other situations and deepening understanding of theory-practice links.	We've talked about modeling in writing with this group for this particular strategy. I'm wondering if it could work in maths. Can you see any possibilities?
Teacher identifies how they will know if new practice is more effective with students than previous practice.	Promotes self-regulated learning and ongoing improvement.	Sometimes when we change things, it doesn't work for students so it's important to monitor if the changes are promoting student learning more effectively than before. So, how will you know if the changes we agreed you will try are more effective?
New professional learning goal developed in light of the analysis.	Promotes self-regulated learning and ongoing improvement.	Your own professional learning goal was "to improve my modeling so the students understand what I am showing them and are able to use it in their writing." It's important we keep your goal developing. How would you like to change it? What's next for you?

effectiveness, with the teacher in particular evaluating the ideas for their feasibility or needed adaptations in their context.

Conclusions

The old adage that “practice makes perfect” omits the crucial role of professional conversations in promoting improvement. Schools are places of high activity and the oil of professional conversations that creates and carries meaning across these activities largely determines whether they become opportunities for learning and developing adaptive expertise, or not. Among other things, conversations provide the vision for new possibilities through goal setting (Barron & Harackiewicz, 2003; Linnenbrink, 2005), and feedback on effectiveness (Hattie & Timperley, 2007). They can motivate or de-motivate. This power of conversations underpins the importance of their careful construction because this power may be negative, neutral, or positive. Observing and analyzing professional practice have the potential to be all these things.

Increasingly, we expect teachers to move from purely craft-based practice to more research-informed professional practice (Timperley & Alton-Lee, 2008). It is no longer enough to do one’s best as a teacher or leader. There is a growing expectation that teachers will interrupt their standard routines of practice and use research-informed theory and practice to create experiences that promote the learning and well-being of all their students. Acting in accordance with this research is becoming a professional obligation and a demanding expectation.

In parallel with this professional obligation to meet these expectations of practice, are the obligations of those responsible for supporting their learning. They, too, need to help teachers in ways that are consistent with what is known about learning. This means interrupting their standard routines of practice and examining that practice for its effectiveness in promoting professional learning using research-informed theory of practice.

This chapter has focused on interrupting conversations surrounding the analysis of teaching practice and constructing such conversations in ways that are consistent with how people learn and with the

development of adaptive expertise. The underpinning theory, however, applies to a wide range of conversations. Learning theories are increasingly converging on the importance of principles of engaging prior conceptions, developing a deep foundation of knowledge, constructing learning through social interactions, and developing meta-cognitive and self-regulated learning (Bransford et al., 1999; Dumont, Instance, & Benavides, 2010). Conversations, however, are essentially about interpersonal effectiveness, so attention needs to be paid to the kinds of interpersonal processes that are consistent with promoting adaptive expertise. The research project that has surrounded the construction of conversations is consistent with these principles, and has demonstrated repeatedly that they are effective in promoting professional learning in ways that accelerate student learning and achievement.

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