Chapter Five

TELLING AND GROWTH

tell (v) relate or narrate in speech or writing; make known; instruct
grow (v) germinate, sprout, spring up, come naturally into existence

> The image of teaching as telling permeates every move we make as teachers, far more deeply than we would ever care to admit to ourselves or others. (Russell, 1999, p. 222)

INTRODUCTION

This chapter explores my experiences of the first of the named tensions; that is, the tension between *telling and growth*. I investigate the ways in which I tried to manage competing feelings of wanting to tell prospective Biology teachers what I thought they needed to know about teaching while, at the same time, supporting their growth as they learnt about teaching for themselves. I learnt that the tension between telling and growth exists as two interrelated strands: one is that of teacher educators providing information to students about teaching and creating opportunities for students to reflect and self-direct; and the other, is in teacher educators acknowledging students' needs and concerns and challenging them to grow beyond these immediate preoccupations.

The tension between telling and growth hinges on an acceptance that telling is most commonly an attempt to transfer propositional knowledge (a set of assertions which might apply generally to many different situations) from the teacher to the student and, that although such transfer may occur, it does not carry sufficient understanding to the receiver of the information to be personally meaningful or useful. Notions of teaching as telling (and learning as listening and remembering) are deeply embedded cultural 'myths' (Britzman, 1991). As McDiarmid (1990) observes, ". . . beginning teacher education students believe that teaching subject matter involves telling or showing, the view of teaching prevalent not only in schools but in the broader culture" (p. 13). One consequence of these myths is prospective teachers' expectations that they will be told how to teach in their teacher preparation, so that they, in turn, may teach their own students by

'telling' them. Such a view of teaching is often perpetuated by teacher educators and teacher education programs through program structures or selected teaching approaches. Teacher educators who choose to challenge this view of teaching as telling, as I did, face a complex and considerable task. Their task includes rethinking how one behaves as a teacher educator if the role of authoritative 'teller' is removed. In the remainder of this chapter, I examine the different threads of this tension; how I became aware of them, prospective teachers' responses, and how I grappled with issues that arose as a consequence of this tension at work within my practice.

INFORMING AND CREATING OPPORTUNITIES TO REFLECT AND SELF-DIRECT

My Views of Learning and the 'Telling' Model

My views of teaching Biology are informed by conceptual change and constructivist theories of learning (Gunstone, 2000; Posner, Strike, Hewson & Gertzog, 1982). My views of *teaching about teaching* Biology teaching have many features in common with constructivism and conceptual change learning in Science. That is, in order for meaningful learning to occur (as opposed to the passive accumulation of facts) teachers need to appreciate the individual and diverse range of conceptualisations of particular phenomena held by their students and to structure classroom experiences in such a way as to make new ideas intelligible (i.e., they need to make sense and be understood), plausible (i.e., they seem to be reasonable things to do) and fruitful (i.e., they can be used successfully by students, producing desired results) (Posner et al., 1982). Therefore the pedagogical approach I employed both in the design of the Biology methods curriculum and in working with prospective Biology teachers was intended to promote an understanding of learning as intellectually active construction of knowledge and to assist the development these new teachers as reflective practitioners, who are committed to examining the models of teaching that guide their work to inform ongoing professional learning and improvement. Prior to the commencement of the research, I identified some basic principles that guide my work as a teacher educator. These included the following:

- Learning to teach does not mean learning to teach *like me*. Being an effective teacher educator means that I need to develop ways of working that are responsive to and encourage the strengths, interests and concerns of individual preservice teachers rather than their learning to reproduce my approach.
- Knowledge is individually and actively constructed by learners on the basis of their experiences, values and attitudes. The process of knowledge construction is facilitated by social interaction, for example through shared experience and discussion.

It is clear from these principles that my intended emphasis was on nurturing the development of students as individuals. Therefore, the construction of the Biology

methods subject and the way I worked with Biology methods students was purposefully organised to reflect these ideas.

Planned Teacher Educator Behaviours to Encourage Growth

I employed particular pedagogical approaches in my classes in order to create an environment that supported the growth of prospective teachers as developers of their own understandings of teaching. My intentions were to encourage students to facilitate their own growth, discuss their own and each other's ideas and experiences and to reduce their expectation that I will tell them what they need to know to be successful. The pedagogical approaches I employed included increasing "wait time" (Rowe, 1974 a & b), withholding/delaying judgment and encouraging increased 'student to student' discussion, rather than acting as the conduit for all classroom talk. I now briefly explain each of these approaches and illustrate their use with some examples from my practice.

(1) Wait time: Wait time refers to the period of time a teacher remains silent after posing a question (wait time I) and the time following an initial student response (wait time II) (Rowe, 1974). Typically, teacher wait times (I and II) are very short (~ 1 sec). Lengthening wait time (3 to 5 seconds) improves significantly the number and length of student responses, students' speculative thinking and contributions from a variety of students. Because students generally find the idea of wait time intelligible and plausible (i.e., it makes sense to them and they can see that it produces the desired results of increasing responses) I purposefully modeled wait time in the first few weeks of the course and explicitly drew prospective teachers' attention to what I was doing and why. For example, I noted the following in my journal after watching videotape from the second week of methods class:

> Good wait time. I waited and then Warren came in with a thoughtful response. I said to the class, "What did you notice about how long I waited?" Then I gave an explanation of why wait time matters. Wish I'd asked them more about how that felt for them. (Personal Journal, Week 1)

However, even when I was aware of the importance of modeling wait time, I did not consistently model this behaviour. For instance, later in the same class, I again noted that:

> I cut that discussion off without any wait time. Just after talking about wait time with them too! (Personal Journal, Week 1)

Interestingly, in talking to Nick (prospective teacher) during our first interview, this same classroom "episode" (White, 1988) of wait time and its impact on students' responses was raised. I asked Nick what he thought were the main messages about teaching and learning that he understood from Biology methods classes so

far. He looked a little unsure about my question, so I said to him, *"It's okay I'll give you some wait time."* He immediately picked up on the cue of wait time and replied:

> Nick: Well, that's one thing. The importance of wait time. . . . I think it was about the second lesson. You mentioned it after you did it and it actually worked. Like you asked a question and I mean I'm the kind of person who gets the answer in my head straight away or doesn't get the answer ever and I'm sort of thinking, what's she doing? And someone actually answered and you explained why that was and it worked out well with students.
> (Nick Interview 1: 193–200)

It is clear that even though I prompted Nick to think about wait time, he did recognize its purpose and he saw that one purpose of waiting (to increase the number of students responding) was achieved. Nick also recognized that although he didn't think that wait time was an effective strategy for improving his thinking, he did see that it impacted on others in this situation; an opportunity for learning that may have been less convincing had I simply told him about it.

A different occasion in which I became aware that another of the prospective teachers was beginning to grapple with ideas about wait time, followed a peer teaching episode[1] (week 15). I asked Sue (prospective teacher) to lead the peer teaching debrief. In her approach, Sue showed a keen interest in encouraging a range of students to contribute to the discussion. At one point, she asked for responses from those who hadn't yet made a contribution.

> Sue: Can we get one more question from someone that hasn't said anything? (Pauses – she looks a bit worried, no one has responded)
>
> Mandi: It's okay. Just give them some wait time. (Long pause)
>
> Sue: How long is wait time? (Pause)
>
> Pat: I've got a question . . . (I give non verbal signal to Sue to indicate, 'See, waiting works!')
> (Videotape: Week 15)

In this "brief but vivid moment" (Mason, 2002), the tension between telling and growth is illustrated well as Sue feels what it is like to experience wait time in a way that is quite different to me 'telling' her (or the rest of the class) about it. She has had a chance to build her own knowledge by being in the situation of learning about wait time *by waiting*. This episode also illustrates the nature of teaching about teaching as recognizing opportunities for new growth. In this situation, I recognize and act upon a potential learning moment for Sue (and possibly other class members too) as it arises; embedding learning about wait time within a real experience. I encourage Sue to step out and take a risk with me as we explored this notion of wait time together.

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[1] Peer Teaching involved students, in pairs, designing a mini-lesson, teaching it to their peers then debriefing the teaching and learning experience, afterwards.

(2) Withholding/delaying judgment: This refers to the teacher's actions in establishing and exploring a range of student views, opinions and explanations, rather than the teacher 'closing' on a correct response. The teacher's primary purpose in withholding or delaying judgment is to have as many students as possible clarify their views, reasons for holding them, and any differences between their views and those of other students (Baird & Northfield, 1992). In so doing, opportunities for learners to become aware of, reconsider and possibly restructure their meaning for ideas become available.

In Biology methods classes, I employed a range of tactics in order to withhold and delay judgment. For example, I used encouraging but non-committal responses such as "uh-huh", or "thanks" following student responses; I repeated what students said using a questioning tone as a means of checking an idea with the class; I asked for responses from non-contributors to a discussion and, I tried to pick out from the variety of responses those points which seemed to have been resolved and those requiring further clarification. While my intention was to encourage prospective teachers to rely less on me as an arbiter of their progress and encourage more interaction between themselves and their ideas to develop their thinking, this was not necessarily how my actions were interpreted in practice. For example, Lisa described my approach as "aloof". She found that she was trying harder to elicit a positive response from me, to please me, because I wasn't offering praise or 'judging' contributions, even though she recognized the intent behind my approach. Lisa's experience prompted her to begin to consider more closely how she might teach to encourage self-reliant behaviour in her own students. Her e-mail provides evidence of her thinking.

> Date: Tues, 13 March 2001
> From: Lisa
> To: amanda.berry@education.monash.edu.au
>
> I can sense that Mandi is very wary of the teacher pleasers in our class. I see that she tries to avoid responding to them by being a bit aloof. I will try this. She also doesn't give many judgments about what people say. Perhaps this has the opposite effect from that intended – i.e. students are trying to please her, but she doesn't seem pleased – will have to try harder. R [another lecturer] is less aloof and probably a bit more encouraging and judging about discussion and responses – she actually say 'yes, great' quite a lot. Mandi doesn't do this nearly as much. Interesting that I feel no need to please R. I think I have some kind of answer – try to be encouraging to everyone and let everyone feel they have 'pleased' me. I can be selective in how I do this and offer praise when students do things for themselves, so that they learn to derive their own pleasure from their own learning.

Even though I believed the goal of my non-judgmental approach was worthwhile, I struggled to know, at times, how I might help students move forward in their thinking from collecting ideas to making sense of them. Baird & Northfield (1992) highlighted the difficulties associated with this approach, as ". . . the teaching skills associated with this technique are complex and subtle; the teacher is making decisions continuously about whether and how to react to student comments as well as whether

and how to close or redirect the discussion" (p. 232). Also, students' expectations of themselves as learners and their view of teaching impact considerably on their view of the worthwhileness of such an approach. In the Biology methods class those prospective teachers who did not expect to value their own ideas often saw little of worth for their own teaching from this aspect of my approach.

(3) Increasing student to student interaction: This refers to instances of increased direct student to student interaction, without the teacher acting as a conduit for, and/or commentator about, each response. In traditional patterns of classroom interactions the teacher poses a question, one student responds, the teacher comments on that student's response, another student responds, the teacher comments, and so on, as though each student contribution is only valid when sanctioned by the teacher, for example by agreeing, praising, rewording, redirecting, etc. When the teacher's controlling/judging role is withdrawn, there are increased opportunities for students to put forward and clarify their own thinking and to take greater responsibility for their own learning. This is not to say that the teacher does nothing; simply standing back to watch the students talk. There is a more complex and subtle role for the teacher to take in knowing when, how and if to intervene.

In the second Biology methods class (Week 1) I observed a tendency of mine that, during discussions, I commented on each student's response after it was offered. I told the class I was concerned that my behaviour perpetuated an expectation that I would control all discussion and that their responses needed to be somehow approved by me for discussion to proceed. At the time, the students seemed rather puzzled by my observation, as though teachers commenting on student contributions was an unproblematic 'given' of teaching. Privately, I chided myself that it was perhaps too early to make explicit (and problematic) to the class this aspect of my teaching since most of the prospective teachers had not yet even had a chance to run a discussion, let alone critique the teacher's role within it.

I did not explicitly pursue this matter with the class, although I resolved to continue to address this aspect within my practice. I was surprised then, when one week after I had raised the issue of teachers' involvement in discussion, one of the prospective teachers, Josh, told me that he had been thinking about what I had said. He admitted that up until that point he had just assumed that this was how teachers behaved during discussions. He had never questioned why teachers acted this way, or what messages might be conveyed through their actions. Hearing Josh's thinking surprised and delighted me. He had begun to critique the role of the teacher in discussion.

Reflecting on my conversation with Josh also helped me recognize an important aspect of the tension associated with helping prospective teachers learn about teaching. Creating conditions for growth does not necessarily mean that growth occurs immediately or obviously. It involves waiting and trusting that those conditions will be helpful for students' learning – over time. Just because these prospective teachers hadn't picked up on my intentions for their learning when I expected them to, did not mean that my intentions were inappropriate or unrealized. Josh had taken something away from the class and had kept turning it over in his mind. I had assumed that they

weren't ready to deal with these ideas because I couldn't see them doing it on-the-spot and in front of me.

FURTHER ASPECTS OF MY APPROACH INTENDED TO STIMULATE INDIVIDUAL GROWTH

In addition to the specific teaching approaches already described, my overall approach to teaching Biology methods was based on creating an environment intended to support prospective teachers' personal knowledge growth, rather than me telling them what (I thought) they needed to know. In order to create such an environment, I used experiential learning situations that could act as a starting point for their learning. For example, in my approach to helping students learn about planning lessons effectively (an aspect of learning to teach that is commonly presented to prospective teachers as expert knowledge to be acquired and practiced), I began from their early experiences of planning and implementing lessons during their Science camp[2] (tasks for which they had had little formal prior knowledge input). I asked students what they had learnt about planning lessons from their experiences of teaching year 7s (12–13 year olds) on camp. Then, drawing from their ideas we considered together the purpose of a lesson plan and the different ways in which these purposes might be addressed. In my web-based Open Journal, I wrote about the power of this session as an example of experiential learning.

> I found it [session] really interesting . . . because people had already had experiences of planning lessons . . . they had a lot to contribute about the difficulties and important things to remember in lesson planning. It reminds me (again) that better learning comes from drawing on people's experiences, rather than simply telling people what to do. ("This is a lesson plan, this is how you make one".) (Open Journal Week 3)

I hoped that from collaboratively constructing knowledge about planning through reflection on practical experiences that the development of their understanding about the purposes for planning lessons might be enhanced. In this way, lesson planning might then become a more meaningful idea to them compared with (what is often perceived by them as) yet another (meaningless) university requirement. The experience of teaching year 7s on camp had hopefully, provided conditions for growth as it created a need for these prospective teachers to know about planning. Through this activity, they could generate real and meaningful questions about planning for learning that I hoped might influence and enhance their approaches to planning in subsequent teaching experiences.

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[2] In week 2 of the teacher education program, all students studying a Science method (i.e., Biology, Chemistry, Physics, General science) attend a two-day residential camp. The purpose of the camp is to introduce students to each other, the aims of the teacher education program and to do some teaching in small groups at a high school local to the camp site.

NEGOTIATING NEW ROLES

Resolving to teach differently, to withdraw (as far as I could) from a position of providing expert knowledge about teaching for Biology method students often left me unsure about what I might tell them that might be meaningful or useful for them as new teachers, or when it might be appropriate to tell them, if I chose to tell. I often wondered how I could help my students learn about teaching if I did not tell them what they needed to know? What did 'telling' mean, anyway? And, what sorts of conditions would support them to reflect and self-direct?

I knew that my role as a teacher educator was changing but I did not have a clear sense of what to do. One example of how I was wrestling with this aspect of my role is revealed in my attitude to summarising a class discussion. In week 3, I felt dissatisfied that I had summarised a student-led discussion, rather than encouraging students to do this for themselves. I felt as though in summarising for them that their ownership of their ideas was reduced, through imposing my meanings on their words. However, when I expressed my regret about my actions in the Open Journal one of them commented to me that in order to gain confidence as a teacher she needed me to reassure her that she was "on the right track". My summary of the discussion was one way of helping her feel reassured. Our comments from the Open Journal illustrate this point:

> At the end of the session I summed up the experience for everyone, told them what I saw/heard. This was the last thing they left the room with – me again! . . . I already know how to summarise a discussion – it is the preservice teachers who will most benefit from taking on that role.
> (Mandi: Open Journal Week 3)

> Student Feedback from Week 3:
> One of your comments last week was about your frustration that the last thing we left the class with was your summation of our learning instead of allowing us to do this. I agree that as preservice teachers we would gain valuable experience by leading discussions on what we thought. However, I also think that we need validation from you that we are on the right track . . . Confidence is a big factor in how we will succeed as teachers. If we are full of confidence we are more likely to be creative and daring in our approach. I'm not sure who else could give us confidence other than our tutors.

This student's feedback highlights an aspect of the tension between telling and growth as I experienced it. I believed that there were only two choices available to me: either I told these students about teaching, or I didn't. In this case I chose to tell them (i.e., I interpreted their experiences for them through summarized discussion) and then felt disappointed because I thought that my actions were in conflict with my beliefs about teaching (that they should learn to do this task for themselves). This student's response helped me understand (what in hindsight seems blatantly clear) that they needed me to tell them some things about teaching so that

they could grow. It was the kind of knowledge and the context in which it was delivered that mattered.

This incident also highlights aspects of the second strand of the tension between telling and growth, that of acknowledging prospective teachers' concerns and challenging them to grow. Having the experience of summarising a discussion may have been helpful for them (challenging them to grow) however their over riding concerns were focused around feeling confident and reassured that they were "on the right track".

Thinking about prospective teachers' experiences of this tension led me to begin to reconsider my understanding of 'telling' and to make some small changes to my practice. Evidence that I was beginning to reconceptualise my approach and incorporate new ways of thinking about 'telling' into my practice is revealed in some comments to the class (weeks 15 and 17: video transcripts, below). While these examples might seem almost trivial, they do help to illustrate how the shift in my personal understanding was impacting my practice. I was beginning to feel more confident about what I could tell my students about teaching.

Week 15: Following a discussion about monitoring student understanding.

Mandi: Fantastic! You have brought up a variety of issues that as a teacher you're working your hardest to think about. 'How do I present things in a variety of ways? How do I know it's working?' It is complex; it is hard. And you're all doing a really good job trying to address these things.
(Video: Week 15)

Week 17: Following a discussion about ways of rewarding students who offer answers when they are not sure they are correct, and the value in this.

Mandi: Okay, so here's a great thing you've brought out. Teachers give this cue [about right answers.] If you've given the right answer they usually say, "Good, great!" If they haven't given the right answer they usually say, "Now, what do other people think?"

Sue: Or, "Anyone else?"

Mandi: Ok. What can a teacher do that doesn't give these cues, if you do genuinely want to explore students' opinions?
(Video: Week 17)

Just as it was important for prospective teachers to have opportunities to reflect and self-direct to stimulate their professional growth, so too I needed the chance to do this. The difficulty for both my students and for me, however, was that we were learning to do this together. I did not have a clear sense of how to do what I wanted to do, which created difficulties for knowing what actions I should (or should not) do to support others' learning about teaching.

EXPERIENCING THE TENSION OF TELLING AND GROWTH AS A STUDENT IN MY CLASSES

In common with the experiences of other teacher educators who have introduced new ways of working into their classes (see for example, Carson, 1997; Grimmet, 1997) it was often difficult for students to know what I wanted them to learn about teaching, particularly if I did not explicitly tell them. Prospective teachers' expectations of learning to teach strongly influenced the way they perceived my approach. Those who expected *to be told* how to teach often found my approach unhelpful and frustrating, while those who expected *to learn* how to teach, found my approach more helpful (Loughran, 2007).

This point is illustrated in my interview with Bill (prospective teacher). Bill explained that his approach to learning and his view of himself as a learner led him to see that self-directed learning can be slow and difficult, and that sometimes it may not be worth the effort to learn this way if those things he needed to know about teaching could be told to him instead.

> Bill: . . . I'm an old fashioned sort of learner and I . . . like to know what's right and what's wrong . . . I like the sort of teachers who say to you don't do this but do these things, these 3 things are good . . . In anything I'm learning, I like to know. That's like the dictatorial style of teaching. These are the things you should and shouldn't do, these are the types of things you should try to emphasise and away you go. Sometimes when you are just thrown in at the deep end type learning, it can be a long process, before you actually might come to grips with something that you've been doing wrong for a long time, because no one has actually said to you, "When you stand out the front why don't you just smile, just once, it'll change the whole feel of the thing?". . . No one actually says what you're doing wrong specifically . . . and I think a lot of us need to be 'brushed up' individually.
> (Bill Interview 1: 260–262)

Bill's use of words such as *"old fashioned"*, *"dictatorial"*, *"what's right and wrong"* indicate a view of knowledge about teaching as externally produced, certain and transmitted unproblematically from sender to receiver. Bill's (short term) desire to be told 'what works' was in conflict with my (long term) goal of helping him to move towards personally oriented growth (Mason, 2002). Perhaps unsurprisingly then, learning about teaching in my classes became a very frustrating experience for Bill. (Further examples of this are explored in other tensions.)

Lisa took a different view of my approach. Lisa's view of knowledge was such that it was personally constructed and resulting from an interaction between her experiences and her thinking about these experiences. In order to develop as a teacher she needed to make sense of her own ideas about how teaching worked for

her. In our second interview Lisa identified that her learning about teaching had not come about as a result of my telling her what she needed to know, but from the questions that she had been encouraged to ask of herself and others.

> Lisa: I reckon you've influenced me mainly because you've helped me think about my teaching. Like you haven't helped me because you've said, "Oh this is how you do it". You helped me think about how I want to teach and what I wanted to get out of teaching, so you've helped me think about that just on my own and then you've also allowed all of us to ask you questions about why you do things and then we can think about whether it's worth doing that . . . and that's really helpful . . .
>
> Mandi: Because I have explicitly invited people to ask questions or you've picked up that it's ok to ask questions?
>
> Lisa: Oh, I think it's the latter. Even though you have invited us, yeah, you've invited us, but not everyone took up the invitation.
> (Lisa Interview 2: 234–251)

Bill's and Lisa's views represent opposing expectations of learning to teach. Bill sees the authority of the teacher educator as ideally positioned to be able to correct teaching mistakes and in this way help him learn about teaching. Lisa, on the other hand seems to find looking into experience (hers, mine, others) a helpful way for her to learn about teaching. It is not surprising then, that Lisa responded to my approach with more enthusiasm than Bill.

My struggles to enact a pedagogy of teacher education with my students that genuinely created opportunities for them to reflect and self-direct also meant that from time to time, students were left unsure about my purposes for their learning. Lisa described my approach as *'subtle'* and that as a consequence, she wished for some more clear direction from me about what she was expected to learn. At the time I found her comment puzzling, because even though I had resolved not to tell prospective teachers about how to teach, I did think I was being explicit about what was the broad purpose of each session. In fact, I did not know what else I could do to make my purposes for their learning more explicit.

> Lisa: . . . sometimes . . . you are pretty subtle. And I think I wish she would just tell us what she wanted, even though I think that you think that you are being really explicit. I reckon I'm like that as well. I have got it in my head that I know what I want them to do but they have got not much of an idea . . .
> (Lisa Interview 2: 120–129)

Lisa referred to my approach as 'subtle' on several further occasions (Lisa e-mails: April 02, 03, June 27).

Interestingly, a student from the previous year's Biology methods class, whom I interviewed in a pilot study for this research, also raised the issue of needing to

have a clearer sense of my agenda for her learning. Anne spoke about her experience of Biology methods classes:

> Anne: [It] felt like we were on a journey but we didn't know where we were going. I didn't know where I was going but I knew that you were taking us somewhere . . . Do you think it would have been better if you had told us what you were doing, or would that have interfered with you not wanting us to know what you thought was good practice so we could work it out for ourselves?
>
> Mandi: What would have helped you in terms of explaining the destination?
>
> Anne: . . . Not by saying this is the destination, but I hope you will question how we'll get there. My goal is to get you to question, to open your mind to other possibilities. That's not [the same as] you giving them the answer to what it is. Then at least people know that's what she [Mandi] wants us to do. I think that's helpful . . .
> (Anne, Pilot Interview: 2000)

Anne's message to me is very similar to Lisa's – prospective teachers needed to know more about my purposes in constructing the Biology methods course in the way that I did. Anne acknowledged my reluctance to tell prospective teachers how they should teach, but suggested there was still useful information that she (and other students) could be told to help them make better sense of my intentions for their learning. I did feel that I had attempted to address this aspect of my practice in the following year (i.e., 2001) but Lisa's comments suggest to me that I did not do so in a way that was satisfying for her (and possibly other students, also.) This further highlights my struggle with 'telling'. An ongoing challenge for me within this tension is in coming to terms with the notion that there is a difference between telling prospective teachers about teaching and giving them sufficient information about my intentions to make clear to them what they are expected to learn.

Making the Tacit Explicit in My Practice as a Way of Gaining Insight into My Purposes

One way in which I tried to facilitate prospective teachers' understanding of my intentions for their learning was by making explicit my pedagogical reasoning while I was teaching. This aspect of my practice is discussed more fully in other chapter tensions. However, it was an approach that I used with the purpose of helping students to gain some insights into what was influencing my pedagogical choices. In this way, I hoped that my students might be prompted to consider teaching as a process of decision making (as opposed to a series of routines) and, as a result, to begin to think more deeply about their own pedagogical decision making. I anticipated that through the process of 'thinking aloud' about my practice that my purposes for their learning would be made clear. In hindsight I recognise that there is an important difference

between providing access to an experienced teacher's thinking and prospective teachers knowing why it is being offered or how my thinking is linked to what I expect them to learn about their own teaching.

One reason why prospective teachers may have found it difficult to understand my intentions for their learning might have been because, in the process of making my thinking explicit, I was paying more intention to *my* needs and concerns, about how I should behave as their teacher educator, (i.e., not telling), and was therefore less sensitive to the particular conditions that might enable them to hear what I was saying and begin to grow. This idea links to the second strand of the tension between telling and growth; that of acknowledging prospective teachers' needs and concerns and challenging them to grow beyond their immediate preoccupations. Other teacher educators have highlighted this tension within their practice. For example, Nicol (1997b), a Mathematics teacher educator, found that as a consequence of studying her interactions with her students that she became more sensitively aware of the balance "Between accomplishing . . . [her] own teaching goals and experiencing teaching through prospective teachers' eyes" (p. 112). As a consequence of her study, Nicol began to "reframe" (Schön, 1987) her understanding of her practice as she learnt to recognise differences between when she was introducing her own agenda and when she was responding to prospective teachers' particular needs. Awareness of this aspect is important in shaping what it means to challenge expectations of learning to teach in order to develop a deep understanding of that which will influence one's own practice.

Difficulties of Looking Beyond My Own Needs in Helping Students to Grow

The notion that I was responding to my own needs for students' learning rather than listening to what were students' needs for their learning became apparent in my efforts to challenge students' thinking about their pedagogy during their peer teaching sessions. My view was that by asking probing questions about the teaching approach chosen and about learners' responses to the teaching in the debrief following each peer teaching session (and encouraging prospective teachers to do the same), that this would create opportunities to learn and grow through collaborative critical evaluation of the teaching and learning experienced. However, my intentions met with limited success in practice. One difficulty was that a number of students found the experience of debriefing too confronting. Several students reported that they felt uncomfortable critiquing each other's teaching, so that instead of opening up conversations about practice and creating new possibilities for action, prospective teachers were more inclined to pose non threatening questions (e.g., "why did you choose this approach?"), or to defend and rationalise their teaching approach when questioned by me or their peers in ways that may have been perceived by them as too challenging.

Maybe had I stopped to consider more closely their needs and concerns then the approach to debriefing that I chose may have been different. At the same time however, I *did* want to encourage them to think differently about their practice. This

strand of the tension between telling and growth becomes real when the teacher educator sees the conditions for growth as ones that challenge the existing views of the prospective teacher and must therefore ask: when is challenge productive, and when is it destructive? My focus was on helping prospective teachers analyse their teaching experiences for productive professional growth, but some clearly felt that my actions were detrimental to their learning about teaching.

WHERE VIEWS COLLIDE

A clear difficulty for me associated with helping students to grow beyond their immediate preoccupations lay in recognising what conditions for growth might be suitable for different students. Because I was strongly aware of my own concerns to reduce the supply of propositional knowledge about teaching, I tended to be highly sensitive to this orientation in others and, consequently far less supportive towards them. In fact, I often took a more confrontational approach in situations where prospective teachers were operating from a transmission model, rather than acknowledging and supporting them so that real possibilities for their pedagogical change might be created.

On the other hand, those who showed that they were struggling against 'telling', or who were experimenting with new approaches to practice, were more likely to receive my support and encouragement. Rather than considering what might be suitable approaches to dealing with individual students on the basis of their individual needs and concerns, I implicitly worked from my own. Interestingly then, it was Lisa's confidence, developed from supporting, rather than challenging her, that led her to push the boundaries of her own learning and to challenge herself to extend her understanding of practice. Perhaps had I recognized the benefit of supporting and trusting *all* of my students, even those whose models of teaching were different to mine, then more opportunities for extending their thinking and exploring alternative models of pedagogy may have been created. Belenky, Clinchy, Goldberger and Tarule (1986) acknowledge this point in highlighting the role of trust and being sensitive to the particular needs of individual students even though as a person or critic one might not agree with their views or approaches.

> To trust means not just to tolerate a variety of view points, acting as an impartial referee, assuring equal air time to all. It means to try to connect, to enter into each student's perspective. (p. 227)

Negotiating the tension between telling and growth was a task that I was attempting to understand and manage at the same time that the prospective teachers in my classes were attempting to understand and manage this for themselves. I needed to acknowledge and work from this dual perspective in order to better help them learn to negotiate this tension for themselves, and allow them to grow; supported by my trust.

Other, external influences such as the school context, also shape prospective teachers' expectations of their learning about teaching. Such influences further contribute to the tension between telling and growth.

The Telling Model and the Influence of the School/Curriculum Context

Prospective teachers' beliefs about teaching Biology are strongly influenced by their own experiences of learning Biology. At the senior levels of secondary schooling in particular, there is considerable pressure on teachers to 'teach to the exam', so it is not difficult to see how getting through the curriculum can drive a teacher's agenda. Transmissive approaches to learning are frequently rationalized by teachers (and students) as an unfortunate necessity, with understanding a desirable, but often impractical goal. For example, Trumbull (1999) conducted a longitudinal study of several new Biology teachers as they moved from university to their first paid employment as teachers in schools. Trumbull explored the ways in which these new teachers began to recognize and grapple with contradictions between teaching for understanding and teaching to pass examinations. Such a view of teaching Biology impacts on prospective teachers' expectations of their teacher preparation program as they may see themselves confronting an 'either–or' situation of whether they are learning to teach Biology to help students pass exams or learning to teach Biology for understanding. Practicum experiences, including expectations of supervising teachers and school students often serve to reinforce notions of exam passing as a teacher's main responsibility which, in turn, influences the model of teaching that prospective teachers choose to employ.

In hindsight, I realize that I did little to help my students better understand the nature of the situation they faced as new senior secondary Biology teachers. While we talked a great deal about the pressure they felt to teach in particular ways (i.e., 'teach to the test', 'tell students what they need to know') I didn't explicitly talk with them about the nature of this problem or how they might perceive their choices for teaching as limited to an 'either–or' scenario.

As an experienced Biology teacher I knew that there were many instances when I 'forward feed' high school students particular content knowledge. Confidence in knowing the structure of the curriculum, including which concepts require more time and which less, what is a difficult concept or a foundational idea compared to that which builds on foundation knowledge makes a huge difference in successfully negotiating these complexities to make an informed decision. This situation raises interesting parallels between prospective teachers' perceptions of their new teaching role and my own.

Inexperience in our roles (as prospective teacher and teacher educator) tended to produce a view that our choice of teaching approach was limited to an 'either–or' situation. Gaining confidence and experience (such as I have in teaching high school Biology) enables the possibility of rejecting such a restricted view and to embrace

ideas of 'both–and'. In other words, experience enables the teacher to begin to see situations as more complex than that represented by a binary view and at the same time, can help the teacher recognise that there are some things that cannot be told. Choosing what to tell and when to tell it is what matters most.

SUMMARY: WHAT DID I LEARN FROM EXAMINING THIS TENSION WITHIN MY PRACTICE?

The desire to tell prospective teachers about teaching is strong. The seductive nature of telling often leads teacher educators to overestimate the extent and impact of what can usefully be told to those learning to teach and underestimate what prospective teachers can learn for themselves (Northfield & Gunstone, 1997). Lisa highlighted this very problem when she described the effect on her of a particular teacher educator who did a lot of 'telling' and neglected the students' experiences as opportunities for learning. From this experience, Lisa considered the implications for her own teaching:

> Date: Tues, 6 March 2001
> From: Lisa
> To: amanda.berry@education.monash.edu.au
>
> . . . I guess she[lecturer] is very concerned with getting her own story across that she has lost the idea that we can learn from our own experiences and from each others. This is an important lesson for me because I feel sometimes that I have so much to share and it will be hard for me to let my classes learn for themselves. I will have to buy a stapler and staple my lips together. Maybe I could put a stapler on my desk to remind me to SHUT UP! . . .

Lisa pinpoints an aspect of telling, that it is far too easy to tell prospective teachers what they need to know and to offer vicarious experiences of teaching and learning through recounting one's own memories of teaching, and ignore the value in allowing prospective teachers to grow through offering them experiences that might teach them about learning in such a way as to develop their own understanding of these ideas.

In my approach to teaching Biology methods, I chose to deliberately withdraw the authority of my experience (Munby & Russell, 1994) as a 'teller' and to create experiences that encouraged prospective teachers in my classes to construct their own, personally meaningful, knowledge about teaching. In so doing, I did not anticipate the difficulties that I came to face when my students did not construct knowledge about teaching in ways that I anticipated. The contradiction between my intentions and how my students experienced my intentions in Biology methods classes, created the tension between telling and growth described in this chapter.

The tension between telling and growth is an example of finding a balance between the applicability and value of different forms of knowledge. Propositional

knowledge that applies generally to many different situations is frequently formulated in abstract terms and traditionally offered to prospective teachers in a "teaching as telling, showing, guided practice approach" (Myers, 2002, p. 131). On the other hand, the development of knowledge through experience involves developing a sensitivity to situations and a concentration on decision-making about what might be helpful for teacher educators to highlight (or not) for their students in a given situation, and/or how to highlight a particular issue in a given situation.

Teacher educators who wish to challenge the traditional model of 'teaching as telling' are therefore confronted by a real tension. It may be clear what prospective teachers "need to know", but this is very different from them knowing how to act. Hence the teacher educator struggles between informing (delivering the propositional knowledge) and creating opportunities to reflect and self-direct (making experiences about the issues personally meaningful). This tension is also exacerbated by moderating between acknowledging prospective teachers' needs and concerns and challenging them to grow.