

## **Teaching Prospective Teachers about Learning to ‘Think like a Teacher’: Articulating our Principles of Practice**

Much research about learning to teach has clearly demonstrated the failure of a traditional ‘transmission’ model in influencing the practice of new teachers. According to this model, knowledge about teaching is delivered to prospective teachers in the form of skills and theories which they are expected to acquire and apply, in an unproblematic way, in the practice context (Korthagen et al, 2001; Wideen et al., 1998; Korthagen & Russell, 1995). An alternative view of teacher education, as we and others envision it, involves a process of development and change (both cognitive and affective) as prospective teachers learn to negotiate their developing identities as teachers. As teachers of teachers, a key aspect of this change process involves our facilitating a shift in prospective teachers’ ways of thinking from ‘thinking like a student’ (i.e., self-focussed), towards more complex and responsive ways of ‘thinking like a teacher’, richly aware of, and responsive to, the complex set of interactions that comprise the pedagogical environment. Through our collaborative research, we have developed a set of principles of practice that underpin our approach to supporting prospective teachers to ‘think like teachers’. This paper describes these principles; how they are understood and enacted, and the challenges we face in so doing.

### **Learning to think like a teacher**

For us, learning to think like a teacher means "being awake to, and aware of...practice, not just immersed in it" (Mason, 2002, p. 15) so that the knowledge developed through experiences of teaching and learning can be made available in ways that can be used to inform and improve future practice. This involves developing a sensitive awareness of one’s actions and a consistent focus on recognizing alternative perspectives and approaches to learning situations (i.e., reframing – Schön, 1983). Such a view of teaching as pedagogical reasoning and decision making contrasts with the entering assumptions of many prospective teachers for whom teaching appears to be the enactment of a series of uncomplicated routines and learning as something that is ‘done to’ the learner. Furthermore, prospective teachers’ prior experiences as students often means that they do not expect to take into account more than their own perspective in any given learning situation. The

"different worlds" (Perry, 1988) that exist in a classroom and the range of ways in which teaching actions can be interpreted are not relevant to those whose primary interest has been predominantly focused on themselves.

As teacher educators each with several years experience working with prospective teachers, we have initiated a collaborative self-study investigating the ways in which each of us acts to facilitate prospective teachers' learning to 'think like a teacher' (Berry & Crowe, 2006). Although we work in different institutions, in different countries (USA and Australia) and in different subject disciplines (social studies and biology), our informal, shared conversations have led us to recognize that we face similar problems as teacher educators and have developed similar responses to deal with these problems. Self-study as an approach to researching practice is driven largely by the concerns of teaching and the development of knowledge about practice, and the development of learning. Hence, in this research, self-study is a means of formalizing our research approach as the vehicle through which our individual and collaborative understandings of learning to think like a teacher can be explored, developed and shared.

Our research efforts have led to the development of a set of shared "principles of practice" (Loughran, 2006) that we have identified as shaping our approach to supporting prospective teachers' learning to think like a teacher. Our principles have been developed as a result of conversations (written and voice) in which we worked to articulate to each other the knowledge of practice that we have developed through our experiences of teaching teachers. As Loughran (2006) pointed out, many have argued the need to clearly identify and explain the principles that guide one's practice as a teacher educator "... if we expect our practice to influence our students' developing views of, and actions, in, their own teaching" (p. 84).

Our set of principles represents a conceptualization of the knowledge of practice of teacher education developed through our personal experiences of teaching prospective teachers and through ongoing efforts to make meaning from these experiences. While the particular ways in which we enact these principles may be context and individual specific, they represent a 'big picture' view of what matters in our teaching about teaching, and provide us with a basis for shared reflection on practice and a "catalyst for researching teaching" collaboratively through self-study (Loughran, 2006, p. 98). At this point we have developed five principles that capture

the essence of our pedagogical practices in supporting prospective teachers learning to think like teachers. These are:

***Principle One:*** Thinking like a teacher involves learning to see teaching from the viewpoint of the learner. Experiencing the role of learner is an important means of developing an understanding of the learner viewpoint.

***Principle Two:*** Prospective teachers need opportunities to ‘see into’ the thinking like a teacher of experienced others.

***Principle Three:*** Prospective teachers need opportunities to try out thinking like a teacher in order to develop their thinking as a teacher.

***Principle Four:*** Prospective teachers need scaffolding (guidelines, questions, structures) as they begin thinking like a teacher, to support them in the process.

***Principle Five:*** Developing responsive relationships is at the heart of learning to think like a teacher and at the heart of supporting our students (relational support).

We do not intend that these principles be interpreted as a hierarchy or a progression, neither do we imply that each is necessarily always being individually distinguishable within our work; rather we see the principles as an explanatory pathway into a complex set of interconnected ideas that comprise learning to think like a teacher. They are enacted differently with different students and at different times of the year, according to the needs, concerns, contexts and challenges that we, and our students, encounter.

In order to illustrate how these principles are infused in our approach we offer the following vignette, constructed from our experiences over several years of learning to help prospective teachers begin to learn about our expectations for their learning to think like a teacher. Our use of a vignette highlights our view of teacher education as one that is embedded in personal experience, where experience provides a personally meaningful context for the development of understanding. Hence the vignette itself represents a form of (vicarious) experience of our teaching. Consistent with our view of teacher education also, the vignette takes place within a first meeting with a new group of prospective teachers, illustrating our belief that right from the start in our teaching, we aim to develop our students’ sensitivities to thinking like teachers. Although the vignette is set within the context of Alicia’s social studies methods class, the pedagogical features we describe are intended to be representative

of how we both work and could be equally situated in classes taught by either of us. (The numbers in superscript refer to the principle/s that is/are being illustrated.)

*As I prepare for another year of teaching prospective teachers I wonder (again): "How will I help these individuals move from being students in a university class, and thinking like students in a university class, to becoming teachers and thinking like teachers?"*

*"What do I know differently that will help me engage these students so that they might begin to think like a teacher?" With these questions going through my mind, I begin to craft our first session.*

*Walking into the seminar room on the first day of the semester, I see that one or two students are already seated, some are milling around in small groups chatting, while others slowly drift into the room. In these moments before the class 'officially' begins, it may seem to the students as though nothing much is happening, (and when I first began in the role of teacher educator, I would have thought the same), but over the last couple of years I have come to recognize this time as important for my learning as a teacher educator about each new group of prospective teachers. So, I listen a little to their conversations, I watch their actions as they enter the room, I look at their clothing, and I try to pick up on some clues that will help me know something about how these future teachers will develop this year.<sup>5</sup> I try to figure out where these students are, right now, in their thinking about teaching. I ask myself, "Which of them will struggle the most? Will it be the person sitting quietly flicking through the pages of the books, or the one loudly joking at the back of the room? Which of them will 'soar' within a few weeks? How will I know? And, will I get all of them, by the end of the year, to think like teachers, when right now they look so much and sound so much, like students?" For me, and hopefully for them, the feelings of anticipation are great. What will this year bring for us?*

*In a confident and friendly tone, I begin. "Welcome to your first social studies teaching and learning course ... My name is Alicia ..."* I know that right from the start, relationships matter. As we move through the introductions, I work to make eye contact with each person and listen carefully to how they speak and what they say. I want to send a clear message that I am interested in each of them as individuals. I am

*learning about each person from the words they choose, their tone and their gestures.<sup>5</sup>*

*We work through a series of planned activities, both so that I can get a sense of where they are in their thinking about teaching, learning, and social studies and, so that they can begin to learn about the course, each other and me. Things progress pretty smoothly, so far so good. With 15 minutes left, the class session nears its end, and I know the time is approaching for me to begin explicitly modeling my teacher thinking about the session for them, give them a chance to share insights and connections of their own, and to start supporting them in the development of their thinking as teachers.<sup>2,3,4</sup>*

*"Okay, we'll draw the session to a close today by spending some time thinking about what we have been doing together, and why."<sup>1</sup> I pause, look around and check that I have their attention. "One of the most important aspects of teaching that I want you to learn this year is how to develop your 'teacher eyes'. That means moving away from being a student who 'receives' teaching to being a teacher who thinks about and actively engages in all that is going on around you – including the curriculum, the students, the instructional approaches, the classroom climate, everything." Another pause. I wonder, are they with me? "To help you start to do this, we are going to recount what we did during this session and then begin to analyze it. Let's start by talking about what we did in class. How did the class begin? What activities did we do?"<sup>4</sup>*

*I know that I have told them a lot in these few statements. I know that some will be struggling to understand what I mean while others will be beginning to make sense of it. At this point, my aim is to help them think about how they participated in the class and to introduce some useful language that we can keep using - like, 'teacher eyes'.<sup>4</sup>*

*Dana begins with specific answers. "First, we did a KWL chart, then we had a small group activity, then we learned each others' names". "Thanks Dana," I respond. Then, I begin to probe a little. "Why would I do a KWL?"<sup>2</sup> What did it help you do as a learner?<sup>1</sup> What does it help me do as your teacher?" Now, I want to dig underneath the surface of the session to help them explore the thinking behind it.<sup>2</sup> We discuss each aspect of the class and as we do I am aware of who is participating, when, and the ways in which different individuals respond.*

*Robert, the student who was flicking through the pages of his book at the start of the session, suddenly speaks up: "So, why did we do that KWL thing?" At this stage I'm*

not sure whether his question is intended as provocative or a genuine inquiry. Was he not listening or did he not fully understand? Either way, it gives me a chance to add some explicit detail to illustrate my thinking that must not have been clear. "Thanks for that Robert.<sup>5</sup> I chose the KWL not only to provide some support for you to think about what you know but also to initially assess what you know about social studies teaching and learning, to model a tool you can use with your students, and to convey a message that I value you as an integral part of this classroom and the teaching and learning process. Multiple reasons for one action."<sup>2</sup> He looks satisfied, for the moment.

"There's something that I noticed!" declares Doug. "You use our names every time you address us. That seems to help us feel more comfortable and it seems like you already have a certain level of respect for us."<sup>1,3,5</sup> "Great! Doug has articulated another level of thinking about the session that is important for students to recognize. It is not only the content of what we do but the environment that is being constructed that matters."

Doug and Robert's confidence to speak their thoughts then encourages a couple of others to contribute, also. I stand back and listen as more ideas are put forward about how different individuals experienced my teaching and their learning.

The next fifteen minutes fly by. It's time to go and I remind them to read the syllabus and section of the text for next time, although what I want them to do most has already begun, for at least some have begun to recognize that there is more to these sessions than simply doing the tasks.

As I return to my office, I think about their comments individually and as a whole. I begin to think to myself, "How much should I debrief on Thursday? Boy, Doug brought up something I've never thought to even mention before – that's great. I wonder why the group in the back corner didn't speak in the debriefing? I'll have to watch that next time, I don't think I heard any of the four of them speak." I also begin to think about me and some the changes in my own thinking 'like a teacher educator' working with new groups of prospective teachers over the past few years. I think about how little I used to bring in to the first session. I remember the first time I did a debriefing like this. I knew it needed to be done, but we certainly did not delve into as many of the complexities that we considered today. I decide, "I'll have to make sure to keep being explicit about this complexity. Over the last few years, that seems to be one area that takes a long time for them to develop an understanding of. Maybe if I keep

*making that explicit in what they are experiencing then they will be able to see it in their teaching better." I am excited, another year has begun.*

### **Unpacking our Principles of Practice**

This vignette can now act as a common reference as we explore our five principles of practice in detail. We unpack the ideas embedded in each principle and then provide some of the questions and tensions we grapple with in their use.

***Principle One: Thinking like a teacher involves learning to see teaching from the viewpoint of the learner. Experiencing the role of learner is an important means of developing an understanding of the learner viewpoint.***

In learning to think like a teacher there is an important shift in thinking required away from one's personal concerns as teacher to an appreciation of the learner's perspective as well as an emphasis on student learning and curriculum. Such a shift in thinking can be facilitated by putting prospective teachers in the role of the learner, experiencing the kinds of tasks that teachers might expect their students to engage in, then reflecting on these personal experiences of learning, to consider the feelings associated with being a learner in that situation (for example, dealing with feelings of uncertainty, disinterest, confusion, excitement, intellectual satisfaction). For the teacher educator, this means setting up experiences that might help to genuinely bring out these feelings of being a learner and facilitating discussion with prospective teachers to articulate and explore the different learner perspectives such that a genuine appreciation of the diversity of learner responses might be apprehended.

In the vignette, the debriefing aspect of the first class session offers an initial opportunity for the prospective teachers to begin to think about not only how individual activities help them but also to see how the individual activities help or do not help other people in different ways. The prospective teacher is being exposed to evidence that a class of seemingly similar people can experience the same physical classroom differently. This will not be the last time these prospective teachers see these differences.

As they are more and more able to express these ideas about the learner perspective we become more confident that there is the level of trust and rapport established (*Principle Five*) that we can push them further in their thinking like a teacher (*Principle Four*). As the prospective teacher develops we begin to see this

principle that thinking like a teacher involves seeing from the viewpoint of the learner, in action in different ways. They begin to recognize that not all learners respond in the same ways and that the way a teacher experiences the classroom is not the same as how the student experiences the classroom. This is a powerful realization and one that takes some time and effort to internalize (both for ourselves, as teacher educators and for prospective teachers thinking about their students).

***Principle Two: Prospective teachers need opportunities to ‘see into’ the thinking like a teacher of experienced others.***

One way that learning to think like a teacher can be facilitated is through gaining access to the thoughts of experienced teachers as they engage in the process of thinking like a teacher. The teacher educator is ideally placed to explicitly model the various kinds of decisions that guide the teaching/learning process. Opening up the process of pedagogical reasoning through “thinking aloud” (Loughran, 2006, p. 47) may then serve as a prompt for prospective teachers to begin to consider teaching as an act of decision-making (as opposed to viewing teaching as a series of routinized actions), and hopefully to choose to engage in this way of thinking about practice for themselves. This is a complex process that requires more than simply telling prospective teachers what one is thinking; it involves carefully selecting particular aspects of one’s thinking to highlight that might be useful and accessible to prospective teachers, given their particular needs, concerns and interests. It is not always an easy task and depends on the teacher educator’s ability to discern elements of the pedagogic environment i.e., knowing one’s students well, so that what is highlighted for discussion is both personally and pedagogically relevant, and expertise in facilitating an environment in which discussion of one’s thinking about practice is seen as valuable (*Principle Five*).

In the vignette above, opportunity to ‘see into another’s thinking comes quickly. During the first day of class, prospective teachers are asked to consider the reasoning for actions of their teacher – the teacher educator – and discuss some of her reasons for her actions.

***Principle Three: Prospective teachers need opportunities to try out thinking like a teacher in order to develop their thinking as a teacher.***

Prospective teachers also need opportunities to explore thinking like a teacher for themselves. This means, for example, creating situations whereby prospective teachers are encouraged to articulate a commentary on the thoughts and feelings they experience within the teaching role. Through the experience of talking about their thinking, prospective teachers may then begin to "reframe" (Schön, 1983) their view of teaching as one which recognizes decision making as central. However, just as voicing one's responses as a learner (*Principle One*) requires confidence and trust, so too does being willing to think aloud about one's thinking. The role of the teacher educator is vital in creating an atmosphere of trust that might permit such sharing of ideas (*Principle Five*).

When we ask our students to think about and reconsider their practice, we are setting them on their way toward thinking like a teacher. Of course, the opportunity alone is not enough; there must also be guidance and support (*Principles Four and Five*). Principle three is closely intertwined with principles four and five. Without the strong and appropriate scaffolding (*Principle Four*) and relationships (*Principle Five*), giving prospective teachers these opportunities to practice thinking like a teacher could be very ineffective or counter-productive.

***Principle Four: Prospective teachers need scaffolding (guidelines, questions, structures) as they begin "thinking like a teacher", to support them in the process.***

Thinking like a teacher is facilitated through deliberate and appropriate scaffolding, such as providing questions and guidelines that are different from the emotional/relational supports (*Principle Five*), although the two are closely intertwined. These supports help guide the prospective teachers through their attempts to think like a teacher.

We support them in this process by asking deliberate and well-placed questions that can give guidance on what they should be thinking about as new teachers. As our conversations develop, we listen for comments that reveal what they see and understand at this point and we use these cues to inform decisions about the next questions to ask. This is where we need to be strategic in supporting (rather than stifling) thinking through how and what we ask.

In the vignette, Alicia begins by asking the group to recall the activities of the session. She then works towards eliciting possible reasons for the choice and sequence of activities experienced. Throughout this process she is open to questions/comments that can take the conversation further, however at this stage, she is not worried if they do not arise or if the group does not yet seem ready to grapple with ideas beyond the what and why of teaching. This process of scaffolding prospective teachers' learning to think like a teacher is important if prospective teachers are to understand the purpose and value of their involvement in the process.

Cognitive scaffolding, however, cannot occur without an accompanying understanding of the emotions associated with learning to teach. Teacher educator efforts to support thinking like a teacher involves a sensitive understanding of the individual as a whole person, hence *Principle Four* is intimately associated with *Principle Five*.

***Principle Five: Developing responsive relationships is at the heart of learning to think like a teacher and at the heart of supporting our students.***

A teacher needs to know about the specific needs and concerns of individual learners. As teacher educators, this is no different. We need to know the prospective teachers in our care well, and establish a high level of respect and trust so that we might support them effectively. Even from the first moments, we need to develop an understanding of our students as learners and as people while developing a relationship of trust with them. We need to be quick to hear, understand, and respond to what happens in and out of class. (Sometimes our response might be not to act, but nevertheless these are deliberate decisions that we make based on our developing knowledge of the individuals in our classes). Considerable teacher educator expertise is required to identify and respond to situations that can help move individuals forward in their thinking as teachers, yet not shut them down by asking too great a personal challenge of them.

We see aspects of this in the vignette as Alicia begins establishing a climate of respect and caring through her actions. She chooses her words wisely, makes frequent, deliberate eye contact, and uses individual names when she speaks. Over time, as each of us becomes more familiar with the students in our classes we are able to make more complex decisions about how we work with individuals.

## **Challenges and questions with our principles of practice in action**

Articulating a list of principles is one means of offering insight into our thinking as teacher educators. However, in preparing this list we encounter two clear problems. One is that the principles themselves are not distinct and unconnected or easily identified as separate in our work. They are closely intertwined as each draws on and builds on another/others. We trust that, at least to some extent, we have been able to demonstrate their interrelatedness through the initial vignette and also through our cross referencing in explaining each principle. A second problem is that although we can articulate these ideas neatly in print, they are often difficult to live in our work as teacher educators since the real world of practice continually throws in front of us challenges and raises questions associated with putting our principles into practice. We now elaborate some of these challenges and questions.

As we act upon Principle One (Thinking like a teacher involves learning to see teaching from the viewpoint of the learner), for example, we continually must be aware that prospective teachers be able to say honestly how they feel or what they experience as a learner. This can be more difficult than it sounds, as learners are not often asked about their feelings or how they experience an activity; it is expected that they simply do a task and the assumption is that feelings will not get in the way of the learning. Over many years of classroom experience, prospective teachers have learned to hide their real feelings and merely do what is needed to please the teacher. Thus, being able to genuinely identify how one feels and then feel confident that it is not only acceptable but necessary and expected to voice these feelings, particularly when these views may not be considered 'positive' for the teacher educator, relies on the building of a high level of trust and respect within the classroom (a direct connection with Principle Five).

Another challenge we face as the prospective teachers' guide, especially in relation to the enactment of Principle Two, is how to develop our ability to make explicit in our practice our thinking for them. We know that many prospective teachers expect and want their teacher educators to be the expert so that revealing too much of one's teacher educator thinking, for example some of the uncertainties associated with practice, can push some prospective teachers farther away. Over time we have become more experienced in knowing when, where, why and with whom to reveal aspects of our thinking, yet there are always situations in which we struggle to

know how to act or what to say that is relevant and meaningful for the particular individuals with whom we are working. At the same time, we recognize that it is not just our own thinking as experienced teachers that we want prospective teachers to be able to access. Mentor teachers in schools are also valuable sources of wisdom about practice that prospective teachers can benefit from. Yet there are few mechanisms available for helping mentor teachers recognize ways in which they can offer such access without (what all too frequently occurs) prescribing how to act or think as a teacher.

We must be careful as we provide scaffolding, as we work to challenge prospective teachers' thinking (principle 4), that we do not provide too much structure. Too much structure will never help them become independent thinkers. Questions that we regularly ask ourselves related to this principle include, "Has enough been done?", "How might I push further?" or, "Should I back down?". Being able to determine student need (for a range of individuals) is an important aspect that is a constant challenge for our practice.

Principle Five is a vital principle to us. As we get to know our students, they begin to trust us, often divulging information that might otherwise be unknown to us. When and where do we draw the line in opening up such conversation? Conflicts of interest may occur. Besides their teacher and advisor, we also may be important members of the evaluation team with regards to each prospective teacher's progress. As we get to know them very well and are guiding them along the path, we are also the ones to make decisions about continuing along this path. Knowing each prospective teacher well has implications well beyond the pedagogical interactions of the tutorial room.

Throughout this paper we have alluded to the thinking we have developed as teacher educators in supporting our prospective teachers' thinking as teachers. We now turn to this aspect of our learning to highlight both the process of knowledge development and the nature of the knowledge we have developed.

### **Developing our thinking as teacher educators**

As we have become more and more focused on our aim of supporting the learning of the prospective teachers in our respective programs, we have developed our professional knowledge as teacher educators (Eraut, 1994) and specifically our pedagogy of teacher education (Loughran, 2006). Through our experiences, reflection,

and individual self-study practices we have been developing our professional knowledge and through our collaborative self-study relationship we have been able to articulate our principles of practice. As we continue to develop our thinking as teacher educators, we know that the knowledge we have developed matters. In the beginning we had vague notions of what it meant to support the development of beginning teachers. Now, we find that our thinking has become simultaneously more complex and more refined. In practice, we find that we are better able to support our students' development through specific actions and to recognize their needs. We notice that we are also able to more quickly respond to student needs, needs expressed in a multitude of ways – through evidence from comments in and out of class, assignments, and interactions. In similar ways that teachers of children develop a body of professional knowledge, we have developed a body of professional knowledge of teacher education. The development of knowledge of practice is important for teacher educators in order to improve the quality of teaching about teaching, and their students' learning about teaching. The development of our pedagogy of teacher education has been conceptualized within this chapter as a set of five principles of practice that we believe frame our approach to teacher education as one that is based on facilitating beginning teachers' learning to think like a teacher. These principles then serve as a frame for both the ongoing investigation of our practice and as a 'sign post' for recognizing particular aspects of learning to teach within our classes. We anticipate that in articulating and sharing our principles that they might serve as a prompt for others to consider the ways in which their own pedagogy of teacher education is codified and enacted.

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