

Self-Study, Critical Friendship, and the Complexities of Teacher Education

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When the right hand washes the left, the right hand comes clean too.
(Nigerian [Igbo] proverb)

The notion of critical friendship is central to self-study (Loughran & Northfield, 1996). A critical friend acts as a sounding board, asks challenging questions, supports reframing of events, and joins in the professional learning experience. In this paper, we share our experiences of acting as critical friends for each other in two separate self-studies of practice. We discuss what we learnt about our practice from having and being a critical friend as well as what we learnt about the role of the critical friend.

As teacher educators in Australia and Canada, we are both concerned with studying and improving our teaching. Sandy is a senior lecturer in mathematics and teacher education in the Faculty of Education, University of Technology, Sydney (UTS) and Tom is a professor in science and teacher education in Queen's University's Faculty of Education. We share an interest in self-study of teacher education practices. In Tom's ongoing self-study of his teaching practices (Russell, in press), he enlisted Sandy's aid as a critical friend for one semester in 2003. Tom faced an unexpected teaching challenge when he returned from leave and took over three secondary science method classes from two other teachers at the midpoint of an eight-month postgraduate pre-service teacher education program. Tom, based in Kingston, shared his experiences in these classes by E-mail with Sandy, based in Sydney. These weekly e-mails were exchanged over a five-week period. Following this exchange, we co-authored a paper and presented it at the Fifth International Conference on Self-Study of Teacher Education Practices (Russell & Schuck, 2004). In the process of writing the paper, we developed new understandings about critical friendship, its benefits and its challenges. Some eight months later, Tom was invited to work in the Faculty of Education at Sandy's university. We seized this opportunity for Tom to act as critical friend to Sandy in her primary mathematics education class, held for two hours weekly. Tom attended the first four classes for this subject. In this paper we synthesise our developing understandings of critical friendship and self-study over two complementary and substantially different experiences as critical friends.

The Role of Critical Friend: Problematic Issues and Assumptions

One problematic issue of self-study concerns the difficulty of assessing one's own practice and reframing it. Personal practice develops in tandem with a practitioner's beliefs and images of appropriate practices and thus tends to be comfortable. It is often difficult to make changes or to ascertain if those changes have improved practice (Russell, 2002). Hence the need for the critical friend to act as described below:

A critical friend, as the name suggests, is a trusted person who asks provocative questions, provides data to be examined through another lens, and offers critique of

a person's work as a friend. A critical friend takes the time to fully understand the context of the work presented and the outcomes that the person or group is working toward. The friend is an advocate for the success of that work. (Costa & Kallick, 1993, p. 50)

It is our shared view that a critical friend is essential if self-study is to involve critiquing existing practices and rethinking and reframing practice; a critical friend also provides essential support and maintains a constructive tone.

When Tom approached Sandy to act as critical friend, she was pleased to do so. The project had several aims. For Tom, there was a desire to enlist the aid of a critical friend to assist with his self-study. Sandy brought an interest in enhancing her skills as a critical friend and an interest in what she could learn from Tom's experiences and apply to her own teaching. However, over time, several implicit assumptions became problematic for Sandy.

The first problematic assumption was that Sandy would fully understand Tom's expectations of his critical friend and the role she should play. While Sandy was interested in the role of critical friend, she was not completely sure of the expectations Tom had for her role in the project. She had acted as critical friend to a colleague in the past and both partners in that friendship had found that the role could be a challenging one (Schuck & Segal, 2002). She was also approached to act as a critical friend to a colleague in another university, and the guidelines given to her in the latter case were very clear. In contrast, Sandy often found that she was unsure how to meet Tom's expectations. She was aware that the role of the critical friend was to encourage reflection and act as a sounding board, but this seemed to be a passive role. She believed that another important aspect of critical friendship was to challenge and critique, but she was not certain if Tom was expecting her to do this.

The second problematic assumption was that Sandy would be able to carry out a role in which she critiqued Tom's practice, even though she perceived herself as having lower academic status than Tom. In her two earlier experiences, this difference was not a problem. In the case discussed here, Sandy was not sure that her role in critiquing Tom's practices and encouraging him to reframe his practice was seen by Tom as being of much value, given their shared understandings of their different statuses as academics. Thus Sandy was eager to learn from the experience of being a critical friend and would have welcomed feedback from Tom about any shortcomings as a critical friend. Indeed, what she required was a critical friend who could inform and challenge her in that role of critical friend. Although participating in the project was a valuable learning experience for Sandy, she was unsure as to what she was contributing as critical friend to Tom. These issues, that were quite significant for Sandy, were distant or invisible for Tom, particularly as he was struggling with unexpected challenges in his teaching. Differences in academic rank seem to carry much more significance in Australia (as in the UK) than in Canada; Tom saw Sandy as an academic colleague whose comments would be welcome.

Data Collection and Analysis—Phase 1: Challenges for Tom's Teaching

Tom: In hindsight, I should have anticipated the complex challenges of taking over from two people who had taught the first half of the chemistry and physics method courses. First and foremost, teaching is a relationship. Student teachers frequently report the challenges they face when taking over from the experienced teacher, who is the real teacher in a practicum setting. I quickly felt myself in crisis, struggling to get to know my students and to let them get to know me. My initial reflexes from many years of full-year teaching

seemed inappropriate. Having Sandy as a critical friend quickly became invaluable; she was sympathetic and always commented constructively.

Data were created in files sent weekly by me to Sandy, who replied as quickly as possible to each file. Data concerned reactions of students to my practice, including their angst in some cases about not being told what to do and also their emerging insights into my beliefs about teaching and learning and how and why these differed from their previous teacher's beliefs. I set up my teaching notes in tabular format, leaving a blank column for responses by Sandy. These tables were exchanged quickly as E-mail attachments. Examples of data illustrating my challenges and Sandy's responses as critical friend follow.

In week 3, I discussed ways in which I challenged my students' views about teacher education courses. I invited a former student to talk to the group:

Megan spoke for an hour about the experiences of being a new teacher. Very well received. Megan and I talked back and forth a bit after the break, as I wanted them to hear her sense that [our] program provided neither enough theoretical (as in I really can read and think) nor enough practical (this is exactly how you do X). (Tom, week 3).

And Sandy critiqued my reflections:

This emphasis always disturbs me somewhat – I know I mentioned it before. I don't see the point of establishing that the teacher education program does not achieve enough in either the theoretical or practical sense. Does any program? Is it realistic to raise the expectation that the program will supply all the answers? Shouldn't we be emphasising that learning is life-long and only a taste can be provided in the program, and more gathered from experience in the classroom. In my work with beginning teachers I see that no matter how much we do in certain areas, it is never enough because of the context—they are not actually teachers in a classroom. When they realise this, they develop useful strategies to help themselves, rather than develop a blame culture which is not useful. (Sandy, week 3)

At the time, I did not comment on Sandy's response. Almost one year later, while preparing the conference paper, I recalled this discussion and was reminded of how many approaches there can be to this fundamental issue of theory and practice. My personal view is that teacher education programs already have problems with perceptions of their quality (Segall, 2002). I hoped that by signalling that I know the program is less than perfect, my students would explore more fully how theory and practice interact. I accept Sandy's view as an alternative and did not intend a culture of blame, as Sandy inferred. This issue reminds us that we are not only individual teacher educators but also individuals working in different contexts that shape our assumptions and beliefs. Perhaps because of the nature of the E-mail exchange, in which it is possible to be selective in what one responds to, we never fully explored the issue. If the discussion had been face-to-face, we could have engaged in debate about it, which might have been of value to both of us.

Over a five-week period, I sent E-mails to Sandy and received responses from her that were both supportive and challenging. At week 3, Sandy asked me for my reactions to her responses as critical friend and received an enthusiastic reply:

Love to get some reactions from you (I know it is ever-growing to write, get feedback and respond to that....) (Sandy, week 3)

Your comments on my teaching notes have been wonderful--they show me so much and they keep me hanging on!! (Tom, week 4)

After week 4, Sandy attached some questions to her responses so that she might draw some conclusions about her role as critical friend:

Now for my So What? questions: How has my feedback fitted into your framework of learning about your teaching and reflecting about it? Has it changed anything? Was there any value to it? How can I improve my role as a critical friend? (Sandy, week 4)

To this query, I replied as follows:

Sandy asks some good questions . . . relevant ones and also ones that I've been thinking about. Her file came back so quickly that I've printed it and underlined the phrases I like best—it's impressive that I have the opportunity to read this before starting the week's classes—this being the last of five weeks, with two more to follow in April.

I like Sandy's comment about needing time for the new relationship to build. I wonder how I would have done it differently if I had realized how big a hurdle we all had to leap. I was probably feeling several things—a need to establish some sense of competence in their eyes and a need to get going quickly because I had so little time with them. Both of those probably interfered with relationship-building. I'm very glad that Sandy flagged the issue of *how* one finds the balance between telling and discovering . I can already see that this week will have a pace that could interfere with any progress on that front. At the very least I should signal the value of their keeping that issue in mind as they move into two three-week experiences in different [practicum] settings. Yes, Sandy—there's a big So What to your replies. We seem to value self-study for similar reasons, which in itself is very refreshing. (Tom, week 5)

Outcomes of Phase 1

What Tom Learnt

Having a critical friend forced me to maintain a reflective journal and document my weekly experiences in teaching, even when I was tired and could easily have postponed my writing.

All I want to do is go home and collapse... I have to be here at 9 a.m. for ChemB.

But I also know I need to WRITE. (Tom, 27 January 2003, 9:35 PM)

Sandy's responses provided insights into the situation that enabled me to take positive actions that might have been impossible otherwise. This exchange also illustrates the potential of critical friendship with respect to self-study of teaching. After my fourth meeting with one class, my report to Sandy showed me working to establish an overall agenda as well as teaching approaches.

It was only yesterday in ChemB that I was able to get a clearer sense of what is happening when they work in groups like this. The class is so small that they worked in only two groups. I was struck by the fact that they sound like teachers engaged in group planning. Why shouldn't they sound like teachers? Yes, there are the side topics that inevitably arise—that's human nature. Why shouldn't they work this way while they are in teachers' college? At the same time, this is only our fourth class and they naturally have questions about where we are going. (Tom, Week 2)

Sandy's response framed a tension that had long concerned me: *How much should I determine the course agenda and how much should I ask students, soon to be teachers, to learn to set their own agenda for learning to teach?* This is a significant issue for students who are accustomed to working with teachers who set the entire agenda for their work.

I am interested (and a little surprised) that you have not given the students an outline of the program. They are working to your agenda to a large degree (and quite justifiably, as you have a better idea of what is valuable knowledge in this area), so I

think they are entitled to know what that agenda is and how you expect to achieve it. After all, teaching them how to learn through their activity and reflection is what you have decided is important and you have chosen the processes you will use. It is interesting that in our courses we are putting more emphasis on our outcomes and program. This leads to the paradox of needing to be responsive to students' needs but also wanting to accomplish our own agenda. This raises the expert-novice contributions dilemma again. We value what they know, but we do have more expertise and have spent more time thinking about this. What are our roles here? (Sandy, Week 2)

This early comment from Sandy generated a focal point for my continuing deliberations about my teaching, initially inspiring discussions of these issues with my students and ultimately leading to an explicit focus on self-directed learning in my physics method course in the following year.

What Sandy Learnt

Sandy: I gained ideas for my own teaching from reading Tom's descriptions of his teaching and reflections. Tom wrote reflectively after week 3:

University education certainly sends a message that learning happens in lectures. . . . Even though lectures are criticized for being tedious and boring, there is little or no discussion of the *quality* of teaching and learning, with the result that alternatives to telling appear empty, inefficient and unproductive. Classes are meant to be planned well in advance without learner input. Alas, I've taught myself over 25 years that I must reduce the structure my teaching provides—to ensure I am not providing too much and also to encourage self-directed learning—a goal that many new teachers seem to believe is appropriate for the students they will soon be teaching. It simply will not happen in schools if we cannot *experience* it here, feel it, discuss it, learn from it, and develop strategies for helping students begin to make the transition. (Tom, week 3)

I responded enthusiastically:

This section hits the nail on the head and has provided me with a lot of thought for my own teaching. I find the structure that I offer the students is valued by them, and we do little or no lecturing or telling. Most of it is done with activities in which students engage collaboratively. However, the tension between providing too much structure and encouraging self-directed learning is present. (Sandy, reply to week 3)

I also learned more about the process of being a critical friend by participating explicitly in the role and through writing the conference paper. I learnt that *trust, support and flexibility* are essential elements of a critical friendship. I also appreciated the importance of frank and comprehensive discussion of roles. In writing the conference paper, an opportunity arose for discussion of the critical friendship. It appeared to me that my contribution to this friendship was more in the area of offering support and encouraging reflection than in challenging and provoking Tom's practice.

Insights from Phase 1

Sandy and Tom: As we prepared our paper for the 2004 conference, we both realised that there were strong parallels between our students learning to teach and our learning to be critical friends. In both contexts, ascertaining ways of improving practice for oneself is likely to be more effective in enhancing practice than actually being told what to do. We also realised that the more valuable part of the critical friendship probably occurred through

the thinking about and writing about practice, rather than through reading about the critical friend's reactions to that practice. This insight has implications for the role of critical friend. Finally, time is essential for teachers to critically reflect on their practice, and the same is true for teacher educators; the rapid pace of our work and the numerous demands on our time may disrupt our opportunities to examine critically the issues raised in a critical friendship. We believe that critical friendships are valuable if they encourage us to reconsider aims and purposes of practice and create the space and opportunity for such thought to be nourished.

How Could this Critical Friendship have been Improved?

Perhaps the greatest constraint on this critical friendship was the short duration of the project. Tom was teaching for only seven weeks, and only the first five were the focus of this study. The remaining two occurred after a practicum break of seven weeks, and continuing the study would have been a case of too little, too late. Electronic mail itself is also an obvious constraint on the quality of our communication; had even one face-to-face observation and discussion been possible, we expect the quality of our critical friendship would have improved considerably.

The process of critical friendship could have been improved in several other ways. Frank and thorough discussion *before* the start of the project could make it possible to explore expectations and concerns of both parties. The friends' relative status and levels of experience in the field should also be considered. This issue of status can be problematic for both partners in the friendship: the one feeling diffident about critiquing someone with more experience and the other feeling that he or she might have more to lose in such a relationship. Lastly, a third dimension could be added to the project: in addition to the practitioner examining his or her own work and the critical friend critiquing it, the practitioner could provide feedback to the critical friend on how his or her needs are being met. Thus the critical friend can learn from the experience and improve practice as a critical friend.

The exploration of our critical friendship did not occur at the time that the first phase was in progress. As indicated above, Sandy had some concerns about how well she was fulfilling her role. Tom did not seem to take full advantage of the friendship, as he used it to encourage his analysis of his teaching but did not regard all aspects of Sandy's critique as suggestions to challenge his practice. Neither of us might have thought further about it had we not decided to present a paper about the friendship (Russell & Schuck, 2004). Only in preparing for the conference did we become aware of the intricacies and complexities of the friendship. A critical friendship on teaching developed and expanded to include a critical friendship about critical friendships.

Writing the paper for the conference gave us an opportunity to make explicit what we had gained from, and found challenging in, the critical friendship. Tom had found the friendship useful in encouraging him to write after the lessons and to reconsider his teaching even when tired or busy with other matters. Sandy had found that Tom's sharing of ideas on his thinking about teacher education had stimulated her ideas about her own teaching. Challenges in the first phase of our critical friendship included the difference in status that Sandy felt, that made her role somewhat problematic, the lack of cues telling her how her role was perceived by Tom, and the lack of contextual background occurring through a short-term interaction by E-mail, without Sandy ever having the opportunity to be present in Tom's classes. Preparing a paper generated a context for these issues to surface and for us to begin to listen to each other in new ways. It paved the way for the second phase of the

friendship, which was face-to-face and without many of the problematic aspects of the first phase.

Data Collection and Analysis—Phase 2: Sandy's Teaching and Learning

Sandy: The second phase of our critical friendship occurred when Tom visited UTS in Sydney for a period of four weeks. We were both interested in how our critical friendship would unfold in this different context, which contrasted with the previous experience in a number of ways. Firstly, Tom visited Sydney for four weeks and so was able to attend my classes each week over that period. We built in time for conversation about the class and, as this was face-to-face over coffee, we had the opportunity to observe non-verbal cues, such as facial expressions, to add to our understandings of what was occurring. Secondly, the status issue did not arise, as Tom was in the role of advisor and critic and his perceived higher status seemed to me to be aligned with this role. Thirdly, I was able to feed back my thoughts about the experience to Tom, which gave Tom information about how his role was being perceived and experienced by me. Given these differences, which all appeared to facilitate the critical friendship, it was of interest to us to capture what we both learnt from the experience and how it differed from the first one.

Although we share many values with regard to teacher education, and for this reason the friendship was useful and viable, we acknowledge that our contexts also differ in significant respects. These differences had to be negotiated carefully if our friendship was to be productive. One of the most striking differences was that the class that Tom observed me teaching was in the second year of a four-year degree; this meant that students already had some history with their lecturers and were continuing a learning discussion rather than beginning one. In contrast, Tom's students are enrolled in their teaching course for only eight months and so do not have the same opportunities to develop their thinking over a sustained period. As well, my students are studying in a primary education program, while Tom's work in a secondary context. The implications are that Tom's students have chosen to be science teachers and have already completed a science undergraduate degree. My students generally are studying in their first undergraduate degree and have chosen to be primary school teachers, rather than teachers of mathematics. This means that, for many of them, mathematics is a necessary evil that must be taught rather than a subject that they have chosen to teach. It also means that there is mathematics content that my students need to learn in addition to learning about teaching. These differences in context took us some time to negotiate, as initially neither of us took them into account as we focused on the commonalities in which we were interested. However, it became apparent during the critical friendship in Sydney that these differences needed to be acknowledged for the friendship to be fruitful.

Outcomes of Phase Two

What Sandy Learnt

An important aspect of my teaching involves building relationships between myself as teacher educator and the student teachers in each class. Another central aspiration for my teaching is to support students in their mathematical learning and development. As students often feel unsure of their mathematical knowledge or do not enjoy mathematical experiences, my challenge is to help students see the intellectual joys of mathematics and support them in their learning (Schuck, in press). These two aspects of my teaching have guided my practice over the last decade at least. However, my research into my teaching over the years has succeeded in uncovering more dilemmas and challenges, while also

suggesting ways forward. Hence it was with great anticipation that I invited Tom into my class as a critical friend.

Tom came into my class during the first four weeks of the new academic year. Many other events were happening at this time for me, including organising two conferences, directing a new program and developing a new subject. As a result of these other commitments, I had intended to go into these classes relying on my prior knowledge of what had worked well in the previous year and gained positive evaluations from my previous students. Tom's visit and role as critical friend acted as a reminder that these classes did need further thought and improvement. In general terms, then, Tom's visit encouraged me to think further about my teaching and my students' learning in mathematics education.

In discussions after my classes, Tom would highlight the issues that had arisen for him, sitting as observer in the class. There was some discussion about these issues, but for me much of the value came from reflecting on the conversation afterwards. Thinking about what Tom had said and placing interpretations on his comments led to some changes in my practice. For example, Tom's comment that as teacher educators we rarely make the learning about teaching explicit left me puzzling for some time after as to how I could make such learning more central and apparent. I had felt that I was doing that already. The result was a discussion in the following class in which I asked my students to focus on the teaching and learning strategies being used in the class. I also asked for feedback on how useful they found that discussion. Students were extremely positive, both about being asked the question and about having that focus.

Another example of a specific change that occurred as a result of our discussions concerned the use of written feedback from students. It has been my custom to ask students to write anonymous comments, at the end of each class, about any new learning and any concerns they had experienced during that class. Each year, after doing this enthusiastically for a few sessions, fewer and fewer of the students would submit such comments. Discussion with Tom led to a number of strategies for encouraging ongoing feedback. These included typing up the comments and returning them to the students and discussing issues that had arisen. After the number of feedback forms declined in session two, the explicit discussion of comments in session three resulted in more feedback forms being submitted.

Ironically, although this phase of our critical friendship benefited from being face-to-face, it also lost some of the data tracking ability that the E-mails had captured in the first phase of the friendship. Although Tom audio-recorded our conversations, there was not the time between classes to transcribe and further interrogate those recordings. A useful addition to those conversations would have been to send each other an E-mail summarising the important points that had arisen in our weekly conversations. Unfortunately, this insight only occurred to us while preparing this paper, after the four weeks were over.

What Tom Learnt

Tom: Being a critical friend in an unfamiliar context seems significantly different from a similar role in a setting where I am familiar with program, students, and the individuals teaching those students. One of the points we did not discuss in advance of my visits to Sandy's classroom was how those visits would differ from our earlier E-mail-only friendship or from a critical friendship involving two people in the same setting.

Perhaps the most important insight I gained concerns the intensely personal nature of teaching and changes to teaching. Teaching involves such a complex array of factors,

many of which are interdependent. It was far too easy to want Sandy to see exactly what I was seeing as an observer, and I quickly realised that being a good critical friend meant working with how Sandy was seeing her teaching, just as she had done in our E-mail correspondence about my teaching. While Sandy was inevitably conscious of my presence (an awareness she mentioned explicitly in her second class) and wondered what I might be thinking as she taught, I often found myself wondering what I would be doing in Sandy's situation. I also found myself thinking about my own classes at Queen's, wondering how I appeared to my own students. The fact that I was considering my work with a method class that was in its final weeks, while Sandy was working with students at the very beginning of the subject, also had the potential to interfere with what I might raise in our conversations.

I found it particularly valuable to be able to observe Sandy's classes over a four-week period. I was also grateful for an invitation from one of her colleagues to observe a class, thereby providing a comparison across classes in the same program. Every teacher education setting has unique norms, premises and commonalities. Perhaps the most desirable goal common to all such settings is that they be ones in which teachers work to create and sustain a context of productive learning (see Sarason, 1996, pp. 383-387). Realising that this is a high standard that is rarely met in my own classroom and program, I found it valuable to see how the same challenge was approached by Sandy and her colleagues in their classrooms and program.

Further Insights Concerning Critical Friendship

Experiencing the critical friendship in Sydney confirmed some of the thoughts we had during the E-mail friendship. The issue of how best to act as a critical friend continues to intrigue us. Supportive and encouraging comments are more easily received than ones that challenge our thinking and beliefs. We both experienced this in the role of the practitioner, and we both wondered how best to challenge gently as the critical friend. Sandy, while eagerly looking forward to the discussions with Tom after each class, also experienced moments of disappointment when Tom highlighted aspects of her practice that could be improved. While recognising that a study of the aspects of her teaching that could be improved was a central component of her self-study, accepting these challenges from a critical friend and working on ways to address them was not easy. The temptation to be defensive arose, and it was only through reflection after the conversations that Tom's message could be received in the open way he intended.

The process reminded Sandy of the advice she was given many years ago, when she started to observe student teachers on their practicum placements: "Students should only be directed to reflect on improvements to their teaching in a limited way, and many positive messages need to be received as well." It is interesting that, even after engaging in self-study for many years, this advice seems appropriate for teacher educators as well. Perhaps it is simply stating the obvious: we all like to be affirmed as well as challenged in our teaching.

Extending our Understanding of Self-Study, Critical Friendship, and the Complexities of Teacher Education

We believe that our two experiences of critical friendship have been productive for both of us because we both maintained an underlying commitment to each other and to self-study. We trusted each other, particularly at times when complex and challenging issues arose. Through these self-studies driven by critical friendship, we have strengthened our shared values as we have developed new respect for the significance of context in any attempt to

discuss preservice teacher education across institutional settings. As previously indicated, Sandy works in a four-year primary course with people of whom the majority begin their studies of education immediately after secondary school, while Tom works in an eight-month secondary course with people who have completed an undergraduate degree, typically in physics, mathematics or engineering. These differences in age of students, length of course, and depth of prior academic study generate very different circumstances for our work, even though we are both immersed in and committed to the improvement of preservice teacher education. Realising that we had different purposes and contexts for our teaching made the giving and receiving of advice challenging; sometimes the advice came from a perspective that did not acknowledge the particular nature of the class and practice. At other times, the different contexts were used as an excuse for not accepting a critique.

Critical friendship in support of self-study is quite different when done face-to-face with direct observation and when it is done by E-mail. E-mail provides a detailed record that is missing in face-to-face observation and discussion, in the absence of transcriptions of recorded conversations. However, the record comes from the practitioner and therefore only raises issues with which the practitioner is concerned. Face-to-face observation enables the critical friend to ask at any time, “What would I be doing in a similar situation?” and this means that both members of the critical friendship can be considering their teaching at the same time. It also allows the critical friend to observe aspects of the class that might not have appeared significant to the practitioner. However, as noted in the insights from the first phase, the value of critique of aspects of practice that are not problematic or significant to the practitioner is questionable. Responding to the issues that the practitioner raises is likely to be more beneficial. Working in the context of primary mathematics education, Sandy finds herself focusing on her students’ attitudes toward mathematics and their prior school experiences as students of mathematics. One of her fundamental challenges is to keep her students interested and engaged in the primary mathematics curriculum and to keep them from falling back to attitudes such as “I don’t like mathematics.” By working in the context of secondary science education, Tom finds himself focusing on his students’ attitudes toward the quality of the teaching-learning relationship. One of his fundamental challenges is to help his students see the significance of how they teach as they make the transition from learner of science at university to teacher of science in a secondary school. Now that we have completed these two experiences of critical friendship, we have newfound respect for each other’s institutional contexts and classroom challenges.

As Tom was directly observing Sandy’s primary mathematics education work at the start of the academic year in Australia, he was also presenting seminars and workshops for the UTS Teacher Learning and Development Research Group and developing plans for the final two weeks of his own secondary science methods work that would complete his academic year when he returned to Canada. Tom found it challenging to try to practice with Sandy the same fundamental values that he finds it important to summarize for his own students as they leave to become teachers. Table 1 captures some comparisons that we find interesting and useful.

Insert Table 1 about here

Conclusions about Teacher Education, Self-Study and Critical Friendship

We propose the following conclusions that capture insights gained in the two phases of this self-study of critical friendship:

1. Personal friendship and shared assumptions about teacher education provide a strong beginning but are no guarantee of a successful critical friendship.
2. A critical friendship works in two directions. It is not solely for the person whose teaching is being studied; the critical friend also expects benefits.
3. A critical friendship becomes an additional layer of self-study and should be documented and revisited just as teaching practice is studied and reframed.
4. Critical friends need to regularly test the relationship as it proceeds, checking for clues about the level of critical commentary with which each feels comfortable.
5. A critical friendship offers critique of teaching practices for the critical friend as much as for the person conducting the self-study.
6. A major part of critical friendship is the role it plays in supporting and encouraging the practitioner's self-study of practice.
7. The critiquing aspect of critical friendship needs to develop slowly and sensitively and needs time for analysis and assimilation by the person whose practice is being critiqued.
8. Modifying and extending one's personal teaching practices tends to be slower and more complex than personal memories or lists of best practices would suggest.
9. Context is central to understanding of the practice, and discussion of context should precede and support observations and discussion of teaching.
10. Critical friendship contributes by developing and extending each friend's perceptions of the classroom context, yet the friendship can be challenged by the complexity of talking across perceptual differences.
11. While written records are essential and can be shared electronically, a critical friendship may be more successful and mutually satisfying when it includes face-to-face interaction as well as electronic communication, which provides a valuable record of discussions.

Because self-study is an inherently critical activity that seeks to challenge one's fundamental assumptions about personal professional practice, we believe that a critical friend should take risks and be as critical as possible within the context of reading the comfort level of one's friend. While self-study is inherently risky and potentially threatening, the point of self-study is lost when one starts to neglect relevant data and perspectives. A critical friend is a significant part of a self-study. Both practitioner and critical friend should support and challenge each other to ensure that relevant perspectives are brought to bear on the self-study.

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Table 1
Contrasting Teaching and Critical Friendship

Features of Teaching	Features of Critical Friendship
Teaching is first and foremost a relationship.	Critical friendship is first and foremost a relationship.
Teaching is full of essential detail, yet it is the bigger picture that is important.	Critical friendship is rich in detail, yet the commitment of both friends to long-term improvement is essential.
Every teacher seeking to improve must proceed from the here and now of schools as we find them.	Critical friendship must respect and build on existing practices as it also works toward improvement.
Preservice teachers expect to be told how to teach, yet they must become directors of their own professional learning.	Critical friendship reminds teacher educators of the challenging complexity of directing one's own professional learning.
Teacher educators have a strong sense of what teacher candidates must do to become teachers, yet new teachers need to develop intrinsic motivation for their future learning.	Critical friends need to negotiate their shared understandings of how their students become teachers and how teachers improve.
Teacher educators need to be aware of the importance of the context in which prospective teachers have practicum experience. Openness in speaking and listening to each other is central to the success of practicum supervision.	Teacher educators will respond to the challenges of their contexts in ways that might not initially be obvious to their critical friends. Openness in speaking and listening to each other is central to the success of the friendship.
Knowing what the learner is ready for is a critical factor in successful teaching.	Knowing what the learner/practitioner being observed is ready for is a critical factor in a successful critical friendship.
The dichotomy between being told new insights and working out new insights for oneself has considerable significance.	The dichotomy between being told new insights and working out new insights for oneself has considerable significance.