Chapter 10

Constructing and Sustaining Communities of Inquiry in Teacher Education

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This chapter explores the notion of missing links in teacher education by examining concepts of community and inquiry as they pertain to the social dimensions of 'learning to teach.' We know that while these are popular notions in educational discourse we believe their philosophical import has been undervalued in designing teacher preparation program. We have an expanded vision of community that includes school personnel, pre-service teachers, campus-based instructors, and graduates of our program. Similarly we have an expanded vision of inquiry that includes collaborative and individual investigations by all members of the community. These investigations are focused on the program itself and give shape to its continual evolution. Hence, while the concepts of community and inquiry remain constant, the program each year is a unique reflection of its participants and their particular concerns.

In 1997, several colleagues with strong commitments to teacher education reform began to share visions for creating a new initiative within the Faculty of Education at the University of British Columbia (UBC). Conceptually speaking, we stood on a big patch of common ground with all of us believing that preparation for teaching should be considered a moral as well as intellectual and even aesthetic endeavor. We shared concerns that much of teacher preparation is regarded in our own institution, as well as others, as a technical enterprise. Programs are often focused on the mechanics of teaching, rather than on the development of dispositions, sensitivities and understandings that guide thoughtful judgments about what to believe or do in the complex world of the classroom (Fenstermacher, 1990; Goodlad, 1994; Schön, 1987; Thomas, Wineburg, Grossman, Myhre, & Woolworth, 1998). We also held common understandings about the social nature of learning in general, and learning to teach in particular. As our conversations unfolded, two concepts became central. The first was community, and the second, inquiry. As we explored possibilities for creating an alternative option within the existing program, these two concepts began to take root.

Community became an umbrella term in those first discussions. Sheltered beneath it were things we believed had been missing in our experiences working in teacher education programs, including coherence, cohesiveness, and the construction and expression of collective understandings. Emphasizing community also pushed us to think about the sorts of connections we wanted with our school partners. The notion of inquiry brought into focus dimensions of the intellectual side of becoming a teacher that can also be underrepresented in programs: critical engagement with theory, robust and continuous synthesis of ideas, and active participation by students in decisions about the substance and nature of their inquiries and how they learn to be teachers.

These initial visions for teacher education reform were created within several contexts that would continue to shape our plans: the one-year post-baccalaureate teacher preparation program at the UBC, and the wider backdrops of teacher education in the Province of British Columbia and in Canada. Before we could consider an alternative to existing practices in teacher education, we needed to take these contexts into account.

CONTEXT OF TEACHER EDUCATION PROGRAMS IN BRITISH COLUMBIA AND CANADA

Each province in Canada has its own Ministry of Education. In several provinces, including British Columbia (BC), there are separate ministries for K-12 education and for tertiary level education, including teacher preparation programs. Fifteen years ago the BC government created a College of Teachers (modeled after Colleges of Physicians and Surgeons that exist in most jurisdictions) which was legislated to be a self-regulating body responsible for establishing standards for the education of public school teachers issuing teaching certificates, conducting certificate reviews and, where necessary, suspending or canceling certificates. The original legislation established a 20 member board, 15 elected teachers representing regions of BC and five government appointments. The College began conducting reviews of the teacher education programs in the Province in 1988. It reviewed both existing and proposed programs until May, 2003. At this time the government substantially amended the legislation of the College. When this legislation is enacted in 2004 there will be 12 elected teachers and eight appointed members[1]. The previous 'program approval process' will be replaced by a system for establishing professional

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[1] The Government initially proposed eight elected and 12 appointed Board members, but this legislation was strongly contested by the teachers of B.C., to the point of refusing to pay their yearly fees to the College. In December, 2003 the Ministry of Education agreed to reverse the representation on the Board to 12 elected teacher members and eight Government appointed members.

standards for provincial teacher preparation programs. The degree to which the various institutions in the Province offering teacher education programs meet these standards will now be the focus of the College's evaluation.

THE STRUCTURE OF THE TEACHER EDUCATION PROGRAM AT UBC

Pre-service teacher education at UBC requires that students have a bachelor's degree, English language proficiency, work or voluntary experience with youths, and several prerequisite courses. (Prerequisites vary depending on the program one applies to, elementary or secondary, or the specialization, e.g., Science, English, etc.) The 12-month elementary teacher education program runs from September of each year through the middle of August, and is considered intensive in terms of time and workload. In the first term, students take seven courses (39 hours each) and participate in weekly school visits known as "pre-practicum experiences." These courses aim to build the groundwork for learning about teaching. They include courses on principles and practices of teaching and related communication skills, foundations of literacy, developmental theories in educational psychology, and finally, policy issues and the social and political context of schooling. During the same term students also take a course in the curriculum and instruction of art, and one in music.

In the first two weeks of January, students participate in a two-week school experience in which they observe classrooms and engage in small numbers of teaching and planning activities. Until the 13-week practicum begins in mid-March, students are back on campus taking five curriculum methods courses in elementary school subjects: language arts, mathematics, science, social studies and physical education. Of these, the course in language arts is allotted almost double the hours, reflecting the elementary school emphasis on learning to read and write. Upon successful completion (courses in these two terms are marked pass/fail) students enter the extended practicum of 13 weeks, typically in a single classroom. Those with successful practicum reports return to campus in the summer for four final courses: an administrative course on school organization, two courses from Educational Psychology, (one on measurement and assessment practices and another on teaching children with special needs), and finally a course on either the social foundations of education or the philosophy, history, or anthropology of education. Upon successful completion of these courses, students have fulfilled the requirements for a Bachelor of Education degree, and then are recommended to the BC College of Teachers for elementary teaching certification. If this looks like a demanding, even whirlwind schedule, it is. Recent surveys conducted through the Teacher Education Office at UBC and the BC College of Teachers (1997)

have shown that our graduates are fairly united in concluding that although they generally feel sufficiently prepared to teach, their biggest challenge during the program was time management. It has been frequently pointed out by former students that there are too many courses, and too little meaningful integration between them, too many, especially small assignments, and too much content duplication, particularly in the areas of lesson and unit planning, and the ubiquitous, and often less than meaningful, "reflections." Some respondents have noted that they did not have opportunities to develop relationships with their faculty advisors prior to the January field experience, and that they had too little contact with their instructors because they had so many classes. Many graduates have complained about the lack of close connection between campus and the world of practice. They say that most of their learning occurred while they were in their elementary classrooms during the practicum component, not a surprising finding given that 35% of the elementary 12-month program actually takes place as guided apprenticeships in schools.

The survey results and other less formal indicators of student satisfaction with initial teacher preparation are not unfamiliar to teacher educators who have raised similar issues (Sachs, 1997; Tom, 1997; Wideen & Grimmett, 1995). Critics of initial teacher education programs note persistent theory-practice gaps, redundant course content, and insufficient time to engage in careful observation of, and dialogue about, good teaching practices. Others point to insufficient technological preparation, and still others to a lack of agreement between the expectations of teacher preparation held by preservice teachers, faculty, and school-based personnel. These were also some of the reasons that prompted us to explore the possibilities for constructing an alternative within the existing program.

CITE COMES TO LIFE

Our aim was to offer prospective elementary teachers a program that was conceptually and experientially coherent and faithful to ideals of both community and inquiry. Ideally it would integrate two distinct learning contexts. The first context is the campus. Integration here consists of creating a curricular framework to develop themes that can be threaded through all courses, including those courses on the social, historical, and psychological foundations of teaching and those focused on how to teach particular subjects in schools. While there are reports in the literature of cohort-based models (Bullough, Clark, Wentworth, & Hansen, 2001; Koeppen, Huey, & Connor, 2000; Mather & Hanley, 1999; McIntyre & Byrd, 2000; Radencich, Thompson, Anderson, Oropallo, Fleege, Harrison, & Hanley, 1998; Tom,

1997) many of the cohorts described do not encompass the whole program or have little coordination between instructors. By far the most common model is a series of courses accompanied by some combination of field experiences. The complex tasks of understanding, synthesizing and applying knowledge to practice settings is left up to the students themselves, as none of their campus instructors or school advisors have an understanding of the program as a whole.

A second, more complex, context requires a model for integrating the students' school and community-based experiences with the campus-based components of their program (Farr-Darling, 2000; 2001). This requires the development of a common set of values and commitments from three distinct groups: the school-based teacher educators[2], the campus-based teacher educators, and the pre-service teachers. In the regular program it is rare that the faculty advisor who works with the pre-service teachers in the practicum setting has taught any of their campus courses and thus he or she has limited access to the perspectives and content being presented. More importantly, the most critical person in the practicum setting, the "school advisor" (Harlin, Edwards, & Briers, 2003; Montgomery, 2000; Putnam & Borko, 2000) almost never has access to campus course work and frequently harbors the belief that until students "enter the real world" of classroom practice they have little appreciation of what it means to teach. Often students are explicitly or implicitly told to forget all of the stuff done in the "ivory tower" because the only way to learn about teaching is to immerse yourself in the day to day world of the classroom. This kind of fragmentation between academic learning and on-the-job training has been well documented in the literature of other professional fields of practice such as medicine, social work, commerce, law, and engineering and is often described as the "theory-practice gap" (Bernstein, n.d.; Landers, 2000).

If conceptual and practical coherence is to be achieved within a teacher education community, it can only be done through the development of integrative curricular structures, teaching techniques, and evaluative strategies. These integrative approaches must be agreed upon, designed, and then enacted by all members of this community—a very complex and time-consuming agenda. Our teacher education project aimed to establish such a community, and to sustain it over an extended period of time. We hoped to do this with the development of innovative teaching approaches, the production of curricular

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[2] These are the classroom teachers and school administrators who work closely with the CITE pre-service teachers for a total period of about 18 weeks over the course of the year. We call them 'school advisors' to mirror the designation of our 'faculty advisors' who also spend considerable time in the schools working with the pre-service teachers. In other jurisdictions they are sometime called 'sponsor teachers' or 'teacher associates'.

materials and approaches that could be used by other instructors and teacher education programs.

We founded our alternative program on the basis of shared beliefs about teaching, learning and what it means to be a member of a community of inquiry. Early on we agreed that the following statements would guide the construction of the program:

- Learning is social; it takes place in a variety of contexts and through different kinds of inquiry. To learn with and from others, is to enter into a community of inquiry.
- Learning to teach is a matter of developing dispositions towards others and towards inquiry, as well as gaining content and pedagogical knowledge. These dispositions can be cultivated within a community of inquiry.
- In a community of inquiry members are committed to ongoing research, critical reflection, and constructive engagement with others. The epistemic and moral virtues developed and expressed in the community include respect, open mindedness, perseverance, integrity, and a sense of justice.

These underlying commitments, or design principles, owe much to our enactment of features that characterize contemporary socio-cultural theories of learning. The perspective which has been most influential in our work has been that associated with learning through the active participation in a "community of practice" (Lave & Wenger, 1991; Lave, 1995; Palincsar, Magnusson, Marano, Ford, & Brown, 1998; Wenger, 1998) or as others have called it, a "community of learners" (Bereiter & Scardamalia, 1993; Brown, 1994). For Bereiter and Scardamalia, a community of learners must be structured so that community members can productively engage in activities to share their knowledge and support one another in knowledge construction. Notions of "progressive discourse" (in which ideas build on one another through dialogue) and "collective expertise" are reflected in the approaches that we use in CITE as we engage in different forms of collaborative inquiry into 'learning to teach.'

Conceptualizing our cohort as a community of inquiry required exploring the nature of such communities, as well as the nature of inquiry into matters of teaching and learning. Although our understandings about communities of inquiry hearken back to C.S. Peirce (Mounce, 1997), Dewey's beliefs have had the most enduring impact on the educational discourse about them. For Dewey (1916), a community is more than an aggregate of persons, even if they happen to possess common goals. In a genuine community people communicate their goals, revise them together, and work collectively to achieve them. They continually engage with each other in a critical process of personal

and social reconstruction. They do this by responding to and building on each other's ideas. Inquiry in a community challenges the outer limits of each member's epistemological horizons. This challenge requires vigilant efforts to engage multiple viewpoints in deliberation. Community members come to understand that any "argument is bigger than anyone of us comprehends from our own perspective" (Kennedy, 1998, p. 21). We believed that by bringing students together with instructors, school personnel and other teacher educators we could construct a purposeful community in which no single member would hold the answer key to questions about how to teach. Ours would be a collective pursuit of knowledge and understanding.

PRACTICES OF COMMUNITY, PRACTICES OF INQUIRY: CREATING A COMMUNITY OF INQUIRY IN TEACHER EDUCATION

The conceptual and practical coherence characterizing such a learning community can only be developed through agreement on a shared set of values and beliefs among all community participants on important issues—such issues as the purposes of education, models of teacher preparation, and perspectives on learning (both pupil learning and teacher learning). From a program perspective this coherence is achieved through the development of interdisciplinary curricular structures, innovative teaching techniques, appropriate evaluative strategies, and effective communicative practices. This latter practice is critical if we are to achieve the level of understanding and agreement on values and purposes, such as those outlined above, with all of the program participants. In order to design some of these practices we were mindful of some of the earlier empirical and conceptual work undertaken by two different research groups, whose primary focus was on developing "communities of learners" in school learning situations (Bereiter & Scardamalia, 1993; Brown, 1994).

While both of the above research groups use somewhat different language (e.g. 'knowledge building communities' and 'community of learners' respectively), their underlying design principles for creating an appropriate learning environment to establish and sustain these 'learning communities' are similar. Bereiter and Scardamalia (1993) introduce the notion of a "knowledge-building community" (KBC) as an educational strategy for "producing a school environment that supports development beyond what comes naturally [and] is what we must discover if we are to educate for expertise" (p. 199). They see this approach as an alternative to the two polar instructional approaches of teacher-directed didactic instruction versus student-directed discovery learning. They draw upon other examples of KBCs—most notably the scientific research group and other disciplinary-base communities in the social sciences

and the humanities, and industrial firms with their research and development groups for pursuing inquiry. For Bereiter and Scardamalia a community must be structured such that the participants in a KBC are encouraged to engage in activities wherein they:

- share their knowledge;
- support one another in knowledge construction;
- develop and engage in progressive discourse;
- develop a kind of collective expertise that is distinguishable from that of the individual group members; and,
- demonstrate respect and recognition for peers.

Sharing Knowledge

While this feature brings to the fore the important issue regarding the nature of the knowledge that is being generated and shared among the community participants, this knowledge will clearly be very different and dependent upon the setting in which the community is located. The critical design issue for CITE was to create the types of institutional structures and social linkages that would yield common understandings of the nature and kind of knowledge that was considered to be of most value to our own community and the broader teacher education community.

Support in Knowledge Building

Many others (Barth, 1990; Oakes & Quantz, 1995; Sergiovanni, 1994) have documented the important role played by supportive colleagues in community-like settings. However, it is important to try and understand better the nature of how this supportive social environment assists in the construction of a kind of knowledge that would not likely occur in the absence of such a community (Schoenfeld, 1999). This is one of the aims of the CITE project as we examine the efficacy of different communicative strategies using both conventional and computer-mediated models of engagement.

Progressive Discourse

The notion of progressive discourse entails the development of a language and a way of practicing that "motivates inquiry and transforms its results into knowledge" (Bereiter & Scardamalia, 1993, p. 209). It also leads to the awareness on the part of the group members that their current understanding of some phenomena represents an advance over their earlier efforts. We will

demonstrate this feature below as we illustrate the potential of a collaborative, web-based, discussion group for engendering this type of progressive discourse.

Collective Expertise

By "collective expertise" Bereiter and Scardamalia (1993) refer to the development of a type of knowledge that is distinguishable from that which is constructed by the individual group members. As Castle, Drake and Boak (1995) pointed out when discussing their experiences with a collaborative professional development group: "We discovered for ourselves that sharing is a powerful strategy for facilitating transformation in perspectives" (p. 259). We think that this transformation in understanding can be best achieved through the creation of particular practices and activities within the CITE community which we will describe in greater detail below.

Respect and Recognition for Peers

This characteristic is one of the primary moral virtues of any effective community, be it an elite scientific research community or a group of pre-service teachers engaging in a discussion about the merits of curriculum integration. We think that this characteristic is a necessary prerequisite for the emergence of many of the other community features described above. As such, it is one of the virtues that we discuss early and explicitly in the program.

   As we discuss below some of the particular practices that have characterized the CITE community to date, the relationship between these practices and the above design features should be evident. A second, related conceptual commitment of the CITE program is inquiry.

INQUIRY AS A PROGRAM CHARACTERISTIC

As has been claimed by educators and philosophers, the justification of much educational practice rests or should rest upon the nature and substance of genuine inquiry (Goodlad, Soder, & Sirotnik, 1990; Dewey, 1916; Schon, 1983, 1987). In the context of CITE, inquiry is a central concept in two respects. First, learning to be a teacher can be conceived as cultivating certain dispositions as well as gaining content and pedagogical understandings. Cultivating a habit of inquiry and an inquisitive spirit should begin in a teacher preparation program and carry on throughout one's teaching career. In this way we can productively speak about teacher education as initiation into a community of inquiry. Second, it is of value for a teacher to know how to

establish classroom environments that both create and support inquiry among their pupils (Lipman, 1993, Paul, 1994).

Thus we designed CITE with the purpose of encouraging inquiry and in so doing to develop and exhibit those habits of mind and virtues which will move the inquiry forward. These virtues include honesty and integrity, respect for persons and their ideas, a sense of justice, and the disposition to persevere in seeking answers to the inquiries that are entered into by members of the community.

We have designed a number of features or practices that we have incorporated into the program structure of CITE. Some of these practices can be clustered around a particular function or theme. In general these practices can be characterized as follows:

- The use of **collaborative planning** activities with the pre-service teachers and the teachers and administrative officers of six elementary schools, which sponsor the pre-service teachers, to develop a set of campus and school-related experiences to enhance the learning of all participants.
- The introduction of new **communicative strategies**, particularly technology-based tools to ensure shared understandings and open access to all levels of the program.
- The design of a series of **innovative teaching practices** that are consistent with and advance our guiding principles of shared governance, interdisciplinarity, and community.

Collaborative Planning

Given our commitments to shared decision making and inducting our students into those democratic practices that we think ought to characterize educational practices in school settings, we designed a number of planning structures to facilitate collaborative decision making among all of the participants in our community. While we acknowledged that faculty members have both the primary responsibility and the time for developing the basic structure of the program, we introduced a number of practices which enabled both the pre-service teachers and the school-based advisors to participate in making many of the program decisions. These decisions ranged from longer term planning such as the length and sequencing of school experiences, to more immediate decisions regarding the scheduling of particular class curricular activities and assignments, etc. There were several different kinds of structures that we developed for these shared planning/decision-making sessions. The primary structure we used was that of joint meetings. Thus we met about once a month with a group of teacher representatives (school coordinators) from

each school to discuss a series of issues related to the school experience component of the program. We met weekly with the instructional team and a representative group from the pre-service teacher cohort, to discuss the weekly activities and plans for the campus-based component of the program. Another venue for participating in community governance decisions was a web-based discussion forum where the minutes of meetings were posted and where community members could post questions or make comments on any aspect of the program.

Communicative Structures

While our primary communicative structure is the face to face discussion situated in the context of class activities or in dedicated program meetings, we have developed a number of other communicative tools designed to promote dialogue and discussion through the use of several, computer-mediated programs. We have used a number of the features embedded in a limited access, web-based programs (such as WebCT and First Class) as well as a open access webpage (http://www.educ.ubc.ca/courses/cite). In the password protected environment we primarily use the discussion forum and calendar functions. On our 'open' webpage, we post the minutes of all of our standing and ad hoc community meetings and inquiry groups for immediate perusal and comment by all community members.

   We also use e-mail extensively for straightforward communication of information to community participants. These latter, computer-mediated communicative structures have been very successful with the campus-based members of the community, but initially was less so with the school-based community members. However, in the last few years, as the accessibility to the internet has become much easier in elementary schools and the use of computer-based communication tools becomes more a part of the routines and practices of most school teachers, we have found this to be a valuable communicative tool with our school-based community members.

Innovative Teaching Practices

We have introduced a number of innovative teaching and evaluation practices over the past three years of the CITE program with the intent of enacting our vision of an ideal teacher education program. One of the key content decisions was to explore different curriculum integration models to structure various activities. We anticipated that these curricular integrative approaches would model curricular units being planned by the pre-service teachers for use in their practicum classrooms. For example, we organized curricular activities

around powerful, overarching concepts such as 'structure' and 'change' in science, math, art and social studies.

Other innovative teaching practices we have tried include:

• establishing six-person inquiry groups that independently investigate pedagogical matters of interest and concern to the group, and present their findings in a public forum (actual or virtual);
• teaching some of our 'methods courses' in an elementary school context, rather than on campus;
• using an electronic course management tools, such as those located in First Class or WebCT, to post and share student work and resources that have been collected in various curricular areas;
• structuring on-line discussion groups to deliberate on educational policies and practices; and finally,
• all students create an electronic portfolio which serves as a comprehensive and creative documentation of their experiences in the program and of their growth as a professional educator.

Not every innovation has continued over more than one or several years. Some experimental practices have evolved in unexpected ways. All have been subject to public scrutiny and discussion and have been refined on the basis of feedback from students and instructors. We believe that these practices have not only benefited our pre-service teachers, but have encouraged them to experiment with similar innovations in their practicum classrooms. In one chapter it would be impossible to describe all of these or their impact on the CITE community. Instead, we focus on one innovation that continues to change and grow. It is the subject of lively discussion each year, and both its advocates and critics would agree it has sparked the kind of debate that is essential to the vitality of a community of inquiry.

EXAMPLE OF A COMMUNICATIVE PRACTICE USED TO ENHANCE THE COMMUNITY OF INQUIRY

In providing this example of one of the communicative practices that we have incorporated into CITE, we hope to provide an illustration of how we have attempted to encourage and nurture an inquiring disposition among our community participants. It also provides an illustration of how the CITE instructional team is continuing to inquire into our pedagogical practices.

The example is of an on-line discussion forum using a semi-public "discussion board" in a password protected web environment. The very notion of a community of inquiry presupposes a set of standards of practice, which governs the conduct of community members and provides a justification for

the knowledge claims generated by that community. One of the important features of these claims is the requirement that they must be open to public scrutiny and criticism. (In this instance we argue that a "limited" public is most appropriate as we introduce beginning teachers to this notion of 'going public' with their ideas.) In most contexts involving a discussion of teaching and learning practices among teacher educators and pre-service teachers, these discussions are essentially private (while they do occur in face to face classroom settings or in small groups, the conversations and any knowledge claims made in these discussions are ephemeral). Furthermore, they are limited in both time and scope to the specific context where this discussion takes place thus constraining the possibility of participation and the creation of further social links between those educators who are campus-based, and those who are school-based. By engaging in a web-based, on-line discussion forum, we were able to overcome these shortcomings of face-to-face discussions. Furthermore, this practice provides the opportunity of forging an important social linkage between current CITE participants and previous graduates of the CITE program who have teaching positions throughout the world in a variety of educational contexts. Given that participation in this type of forum is still relatively unique for both the pre-service teachers and the teacher educators, the standards of practice and the most appropriate structures for this type of collaborative inquiry are still evolving. Our analysis of this type of practice, then, focuses on the nature of the dialogue and the communicative structures that enable the community members to learn more about the complexities of learning and teaching.

Evolving Practices

We began to explore the utility of on-line discussion components in the second year of the program when we introduced the topic of 'curriculum integration as part of a language arts course assignment. Participants were asked to make at least seven contributions over a four-week period.

The guidelines for posting contributions were that they should be thoughtful, succinct, and threaded (referenced to other contributions). In addition to the 36 pre-service teachers, the forum was open to all of the campus-based educators, four teachers from the practicum schools, and a colleague of one of the authors from Australia. We were pleased with the outcomes of this initial effort at on-line, collaborative learning and so we decided that in subsequent years we would explore more systematic and sustained forms of on-line learning. A required course in our program that seemed particularly suitable for this type of inquiry was called Educational Studies—a course devoted to an examination of a series of social and equity issues (such as multiculturalism,

poverty, gender and sexuality, aboriginal issues, and language) that influence our practices as educators.

Thus, the following year we organized the Educational Studies course so that half of the classroom time, normally devoted to face to face discussion and lectures, was given over to an on-line component. To expand the community we invited previous CITE participants, as well as a group of pre-service teachers from another university in Eastern Canada, to join in the discussion forum.

Our primary purpose for this practice was to enable the participants, in particular the pre-service teachers, to investigate their own learning and understanding about the topics under discussion and to gain an appreciation of the potential value in using an on-line, collaborative inquiry space. To this end we asked the pre-service teachers to focus on the types of learning using the on-line process, to consider how it was different from other teaching and learning experiences, and to reflect on its value as a tool for collective inquiry. Finally we encouraged them to think about how this form of writing and dialogue could be related to their own teaching practice.

Results

The data available for analysis includes the record of the on-line discussion itself, a set of reflective comments made by the pre-service teachers at the conclusion of the forum, some interviews and group discussions with a focus group of five students who met before and after the forum to discuss in greater depth some of the features of this type of forum (Mitchell, 2001).

Some of the questions that we were interested in exploring included: Would this kind of inquiry lead to the development of a coherent perspective or point of view on a given topic area? What types of reasons would the participants use to justify and support their claims? How would they engage with the ideas of their peers? All of these questions, and more, would seem to be important in creating and sustaining a community of inquiry. Overall it seemed clear that the pre-service teachers found this activity to be both enjoyable and worthwhile. In general we found that the participants used a combination of reasons and sources to support their views. Many of the pre-service teachers' comments included some combination of a general statement or belief about the topic under discussion along with some reference to either personal experience or the literature provided on the topic. A further finding was that most of the comments included some reference to one or more of their peers' comments. Thus it seems that this type of forum not only encourages the participants to provide some justification for their viewpoint, but the 'permanent access' that they had to the ideas of others meant that they explicitly quoted and referenced the contributions of their peers. Many of the pre-service teachers

recognized both of these features of this forum. The following comments by three different pre-service teachers on the forum illustrate their insights:

> This type of discussion reflects problem solving, in that we were thinking critically, and questioning the thoughts of one another. This questioning benefits both the outside readers, and the actual participants, because when a participant's idea or point of view is challenged, one of two things happen. The writer either adjusts his or her thinking, or deepens his or her understanding by justifying the point of view to others.

> By bringing in the outside communities, the forum became better than talk. Our replies were permanent and hopefully well thought out. We were going public! We had to refine the way we presented our views because we could not always defend them in person or clarify them easily. I found it interesting the way people looked at my responses because sometimes what I meant and what they saw were different things. The way they viewed my ideas gave me a new way of looking at the problem; it also taught me the importance of considering audience.

> The responses of others to the question that were posed helped to solidify my own viewpoints, or they served to provide more food for thought. In the past, I have done most of my learning on my own. I have not worked with other people, nor have I bounced ideas off them. Learning has been done solely on my own, in an environment fraught with a competitive edge. What has been encouraged is sharing of ideas. This learning has been about delving into issues, expressing our viewpoints and sharing them with others.

While we accept that these comments are largely of an anecdotal nature and we have no systematic comparative data with other cohorts using these techniques, all of the data available to us indicates that this on-line forum was, for the most part, very effective in establishing a learning environment that promoted collaborative inquiry. There were, and continue to be, a minority of students who would prefer not to participate in this type of electronic forum. Although the on-line forum represents only one of many face-to-face and computer-mediated practices that CITE community members participate in over the course of the program, we think that it captures quite nicely the way in which participants come together as a community of learners. In this brief example it is possible to see elements of the design features that we discussed earlier. It is evident that the participants were encouraged to "share their knowledge" in a public space and were often engaged in the task of "supporting one another in knowledge construction". The design characteristic of "developing a kind of collective expertise that is distinguishable from that of the individual group members" is more difficult to assess but we see glimpses of this feature in all of the participants comments above. Finally the characteristic of "demonstrating respect and recognition for peers" is readily evident in the students' comments as well as their actions and contributions to this particular form of communicative practice.

EMERGING IDEAS: TEACHER EDUCATION AS A 'COMMUNITY
OF MEMORY'

In this chapter we have described some of the features of a one-year teacher
education program for elementary teachers that we designed and has now been
in operation for eight years. This design process was strongly influenced by
our view that teaching and learning are co-constitutive activities. While we
have been using the phrase, 'the design process', and we have identified de-
sign features from the literature on creating 'learning communities', we wish
to emphasize the point that the realization of our aims of creating and sus-
taining a community of inquiry can only be achieved through the thoughtful
engagement of the community members in a complex set of social practices.
As program designers we can only try to generate supportive program struc-
tures and practices that afford and nurture this type of thoughtful engagement.
Wenger (1998) makes a similar point when he discusses the notion of design-
ing "communities of practice"—a broader and more generic term for the types
of communities that we have been discussing. He claims "Communities of
practice are about content—about learning as a living experience of negoti-
ating meaning—not about form. In this sense, they cannot be legislated into
existence or defined by decree. They can be recognized, supported, encour-
aged, and nurtured, but they are not reified, designable units. Practice itself is
not amenable to design" (p. 229).

   In summary, our view of teaching is that it consists of a complex set of
actions structured around sets of relationships and communicative practices
that enable others to learn different forms of knowledge and ways of know-
ing. Learning to teach, therefore, involves the development of understandings
about the sorts of relationships and communicative practices that support
learning in different contexts and with respect to different subject matter. Fur-
ther, we are persuaded by the view that much of our learning and knowing
occurs as a result of our participation in social communities. From this per-
spective, learning and teaching are both highly social activities that require
the emergence of diverse and rich learning environments for these practices to
flourish. The task of educators, then, is to create "inventive ways of engaging
students in meaningful practices, of providing access to resources that enhance
their participation, of opening their horizons so they can put themselves on
learning trajectories they can identify with, and of involving them in actions,
discussions, and reflections that make a difference to the communities that
they value" (Wenger, 1998, p. 10).

   Our eight year history with CITE has led us to a broader place of reflec-
tion. We now see ourselves as becoming a kind of "community of memory"
(Bellah *et al*., 1986; Boyer, 1990; Nicholson, 1991). Our current practices are

animated by the relationships between our past experiences and our visions for the future. Following Bellah *et al.* (1986), we are looking forward and backward in time (p. 333), to understand our identities as teachers and learners within the CITE community. The community is characterized by dynamic interaction between former students, current students, school advisors, and campus-based instructors. Our graduates, some of whom are now leaders in the field, come back to us at our orientations for new students every year. They share their memories of CITE and their reflections on their own classroom practices. They also keep in touch with us in an expanding circle that now includes individuals who have taught or are teaching in Japan, China, Thailand, England, Australia, and Central America. The sense of collective memory is enhanced by new communicative technologies that allow greater social links than are normally possible in teacher education programs. Our commitment to these technologies as tools for communication about and for learning was articulated in the first year of CITE and continues to evolve.

The concepts of inquiry and community are enriched by the realization that we are becoming a community of memory characterized by common purposes and commitments, and a continual desire to revitalize our practices and reexamine our goals in light of the experiences and traditions that are behind us. We are fortunate that the teacher educators involved in CITE, as well as our students and school partners, have for the past eight years, shared this belief.

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