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Developing an Empirical Account of a Community of Practice: Characterizing the Essential Tensions

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This article examines the potential of a learning-as-a-part-of-a-community approach, focusing on the participatory process of learning in a community-based, teacher education program; a Community of Teachers (CoT). CoT is a preparation program for preservice teachers working toward secondary teacher certification in which they join an on-going community and remain a part of that community from 2 to 4 years. The entire process of learning as a member of CoT occurs fluidly through the reflexive relations among secondary school participation and university seminar participation, as well as through the active and reflective practices requisite for building one's portfolio of Program Expectations. In this study, 4 participant-observers used field notes, document analysis, and interview data to build grounded interpretations of community life. In this reporting of the data, we have framed these "experience-near" understandings in terms of *core tensions* (or *illuminative dualities*) and presented them in a manner that is likely to have "experience-distant" significance. By characterizing CoT life in terms of tensions or dualities, we hope to provide other educators–designers with an illuminative case study from which they can build petite generalizations—that is, use this discussion to more readily identify patterns occurring in their own interventions and navigate the challenges they face more intelligently.

Over the past decade, many teacher educators have grown dissatisfied with an individualistic approach to teacher education and have come to recognize that prospective teachers need experience as participants in collaborative learning communities in which they are afforded the freedom to experiment with alternative approaches and strategies with the support of their peers (Grossman, 1991; Stein, Silver, &

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Smith, 1998; Wideen, Mayer-Smith, & Moon, 1998). A number of such efforts are underway to transform existing teacher education programs' course contexts into communities of learners that link the learning of preservice teachers with the learning of experienced teachers and teacher educators (Barab, Squire, & Dueber, 2000; Cochran-Smith & Lytle, 1999; Putnam & Borko, 2000; Thomas, Clift, & Sugimoto, 1996; Thomas, Wineburg, Grossman, Myhre, & Woolworth, 1998). A fundamental premise of these interventions is that groups of individuals (practicing teachers, prospective teachers, and teacher educators) come together with the goal of developing relationships in which all members struggle with and construct the notions of what it means to not only teach, but also how to transform current practices (Cochran-Smith & Lytle, 1999; Putnam & Borko, 2000; Stein et al., 1998; Thomas et al., 1996; Wineburg & Grossman, 1998). However, as a learning sciences community, we are still in our infancy in terms of understanding the dynamics that characterize and drive community, especially one intentionally designed to support learning. In this article, we provide an account of a teacher preparation program, Community of Teachers (CoT), whose core goal is the fostering of community among members as they work towards their secondary teacher certification.

Central to the research described in this article is the idea that learning as coparticipation as part of a community of practice can provide a useful model for teacher preparation programs (Barab & Duffy, 2000; Lave & Wenger, 1991; Wenger, 1998). With respect to teacher preparation, the community provides a rich "context" for situating "content," and it reciprocally defines and constitutes both the content and the context by providing preservice teachers an opportunity to experience an innovative learning environment. CoT was developed and is predicated on a number of core beliefs: (a) the importance of a strong sense of community, (b) the involvement of students as equals in defining the program, (c) lots of intensive field work, and (d) an emphasis on authentic performance and assessment (Gregory, 1993a, 1993b). Rather than taking the normal sequence of professional education courses, students participate for up to 4 years in an on-going seminar with more and less-experienced peers. In addition, students select a classroom teacher who they apprentice under throughout their preparation process. The only traditional classes they take are their special methods course (Science, Mathematics, Social Studies, or English methods) and a reading methods course; instead, they earn their certification through the completion of the 30 Program Expectations as documented through a portfolio.

As a learning context predicated on the learning-community approach, the CoT project described in this article has some overlap with other efforts to introduce the tenets of community into classroom learning practices (Barron et al., 1995; Brown & Campione, 1990, 1994; Lipman, 1988; Roth, 1998; Scardamalia & Bereiter, 1994; Sergiovanni, 1994). However, in contrast to efforts that involve the confluence of a group of learners for a specific assignment over a limited time frame such as a semester, CoT involves a cohort of participants who work together to develop

their identity and skill as teachers over a 2 to 4 year period—creating an extended trajectory of participation. Second, in contrast to efforts that consist of same-age learners who are at similar levels of experience in terms of working with the project, CoT consists of members of various ages representing multiple disciplines who have been community members from 1 month to 4 years and, therefore, have varying expertise. Because the CoT program has a relatively rich history of community life, it is a particularly appealing case for studying learning as participation within the contextual constraints of more traditional schooling.

In this article, we characterize the tensions of CoT so that the reader might better understand CoT, as well as understand the dynamics of negotiating these tensions. Understanding a system through its tensions is a useful way of understanding the community and those factors that fuel change and innovation within that community (Barab, Barnett, Yamagata-Lynch, Squire, & Keating, in press; Engeström, 1987, 1993, 1999). When we refer to system tensions, we are referring to conflicting, and frequently overlapping, needs that drive a system and that need to be balanced—not minimized. Consistent with the work of Wenger (1998), our goal is not to treat these tensions (e.g., theory and practice, facilitator and gatekeeper, stability and change) as polar opposites, but as *dualities*, with the core challenge being to illuminate and better understand their interplay.

Understanding tensions and their role in community life is instructive for characterizing the nature (and potentially supporting the evolution) of a system (Barab et al., 1999). To attempt to "scientifically" dissect these tensions, or reduce them to discreet variables is counter-productive and epistemologically, ontologically, pedagogically, and methodologically inconsistent with the goals of this article. Rather, we present these tensions in both an experience-near (local to the CoT experience) and experience-far (has possible connections to other projects) manner with the goal that the reader might take in these experiences, apply these experiences to new cases as situational constraints permit, and develop a more refined gaze toward new phenomena (Foucalt, 1975; Stake, 1995).

BACKGROUND

Teacher Education

Recent teacher education research has focused on restructuring preservice teacher educational programs that support novice teachers in developing expert teaching practices. From this perspective, teacher education is fundamentally concerned with ushering students through a developmental process from that of novice to expert—the focus being on finding the most efficient means to evolve the thinking of the preservice teacher to be more like that of an expert teacher (Berliner, 1986; Kagan, 1992). In contrast to teacher education models that assume a fixed develop-

mental path toward an expert state, some teacher education programs have designed programs that teach against the grain, so as to "foster critical inquiry and prepare prospective teaches to be reformers" (Cochran-Smith, 1991, p. 281). Grossman (1991) criticized Kagan's developmental view of teacher education for imposing a monistic framework on complex, variant processes and for reducing teaching to a set of specific skills. Grossman (1991) summarized her concerns with the developmental view:

> In the final analysis, it comes down to what we want and expect of future teachers. If the end goal of teacher education is to produce future teachers that [sic] are comfortable in propagating current school structures and systems then Kagan's developmental model fits well with current practice. (p. 176)

Her claim is that the developmental view of teaching assumes a process from one of novice to expert, with little emphasis on teacher as social agent, or as a transformer of teaching practice and school culture. Cochran-Smith (1991) asserted that "working to reform teaching, or what can be referred to as teaching against the grain is not a generic skill which can be taught at the university and then applied at school" (p. 281). She acknowledged that many of the concepts foundational to teaching against the grain, such as a critical awareness of power relationships, knowledge, authority, and ideology might be best explored at the academy. However, she also maintained that teaching against the grain is a personal struggle, one that is rooted in historical and cultural contexts, personal biographies, and particular teaching contexts. In short, teaching against the grain is not only about an academic, critical awareness, but also about the sweat and blood of actual teaching as well.

One approach to facilitating "against-the-grain" teachers is to use *collaborative resonance*, or, to form learning communities of preservice teachers and practicing teachers who are engaged in "transformative" teaching. Those who adopt a collaborative resonance approach share concerns about power, equity, authority, culture, and pedagogy in schooling. Cochran-Smith (1991) argued: "The power to liberalize and reinvent notions of teaching, learning, and schooling is located in neither the university nor the school but in the collaborative work of the two" (p. 284). In this way, theory and practice are linked through student participation in actual K–12 school contexts. In her study of a program that partnered four urban schools with preservice teachers in the context of collaborative communities, Cochran-Smith (1991) showed how collaborative resonance can be a powerful method of fostering against-the-grain teaching. Heavily influenced by the context of the urban school, the student-teachers in her study linked theory and practice providing a "'proof of possibility' of a rich and complex discourse among experienced teachers and student teachers" (p. 304). Although this study provides a portrait of what the program looks like, it does not provide any in-depth examination of each student–teacher relationship, or how it

unfolds. Learning within a collaborative community has garnered much support from both theoreticians and practitioners, and a number of teacher educators have argued that for teachers to be successful in implementing new practices in their classrooms, they should be afforded opportunities to participate in professional communities in which they can discuss new teaching strategies and garner support from their peers as they implement those strategies in their classrooms (Cochran-Smith & Lytle, 1999a).

Corresponding to this view of teacher education, several new professional development programs have been developed that emphasize the engagement of teachers into learning communities. For example, in the Community of Learners project (Thomas et al., 1998), English high school teachers collaborate with each other and university teacher educators to discuss and reflect on new teaching strategies and techniques. As the Community of Learners project and other recent reform initiatives and research studies maintain, efforts to produce teachers that are reflective and engage in innovative and transformative practices are inextricably linked to the preparation of reflective, knowledgeable teachers who are prepared to collaborate with their peers and university faculty as part of a community of practice (Putnam & Borko, 2000). By adopting a community of practice perspective on teacher development, it shifts attention away from the traditional analysis of the cognitive attributes and instructional practices of individual teachers and, instead, toward the collaborative interactions that occur among teachers as they attempt to develop and improve their practice (Stein et al., 1998). As attention is shifted from the individual to the group, the location of where learning occurs changes as well. Instead of being located in the mental representation of individual teachers' minds, it becomes *situated* in the social interaction among the members of the community (Grossman, 1991; Putnam & Borko, 2000).

In preservice initiatives that locate teacher learning inside communities, work is deliberately structured so that multiple viewpoints are represented, including reading and discussing research by school-based as well as university-based researchers and teachers (Cochran-Smith & Lytle, 1999a). A central structure of these communities is that considerable time is allotted for groups to work together to hash out issues, write about their experiences, and share the data of their classrooms with one another. The central guiding principle in the design of these communities is that novice teachers are socialized into teaching by becoming a part of a community of learners and practitioners who see questioning and learning to teach as a part of a lifelong task (Cochran-Smith & Lytle, 1999a).

Portfolios in teacher education. Reconceptualizing learning to mean increased participation in a community of practice has far-reaching implications for how learning is assessed. Portfolio assessment provides one potential means of capturing the dynamic unfolding of learning in practice (See Mabry, 1999; Wiggins, 1989, 1992). Many teacher education programs, including the CoT pro-

gram researched in this study, have begun using portfolios as reflection exercises or as components of graduation requirements as well; teacher educators hope that building a portfolio will engage students in real-world practices and provide them opportunities to link theory and practice (Barton & Collins, 1993; Darling-Hammond, 1994; Madaus & O'Dwyer, 1999; Shannon, Ash, Barry, & Dunn, 1995; Vavrus & Collins, 1991; Weinberger & Didham, 1987; Wiggins, 1989). Barton and Collins described three components to portfolio design: developing the purpose, collecting evidence, and comparing evidence to assessment criteria. The portfolio process requires students to weigh evidence, reflect on activity, and create justifications, all of which supports the types of reflective activities that are the hallmark of an effective practitioner (Clift, Houston, & Pugach, 1990; Rushkin-Mayer, 1999; Schön, 1987). Barton and Collins argued that placing preservice teachers in this self-determining role can be extremely powerful. In developing their portfolio, learners actively seek out connections between theory and practice, relating both to their own teaching context. Perhaps as important, teachers experience new forms of assessment and have opportunities to reflect on using novel assessment techniques with their own students (Berlak, 1992).

Learning as Community Participation

Our own commitment to the learning-as-part-of-a-community approach is, in part, what led us to research the CoT program discussed in this article. More generally, we are witnessing a shift from cognitive theories that emphasize individual thinkers and their isolated minds to theories that more fully acknowledge the role of the physical and social context in determining what is known (Barab et al., 1999; Barab, Hay, Barnett, & Squire, 2001; Barab & Kirshner, 2001; Bredo, 1994; Cobb & Yackel, 1996; Cunningham, 1992; Greeno, 1998; Kirshner & Whitson, 1997; Lave, 1988, 1997; Lave & Wenger, 1991). Supporting this shift are numerous books and scholarly articles that advance radically new theories of what it means to know and learn, and that emphasize the reciprocal character of the interaction in which identities, as well as cognition and meaning, are considered to be socially and culturally constructed (Barab & Duffy, 2000; Lave, 1988, 1993). Lave (1993) presented the idea that "developing an identity as a member of a community and becoming knowledgeably skillful are part of the same process, with the former motivating, shaping, and giving meaning to the latter, which it subsumes" (p. 65). Based on extended ethnographic research, Lave and Wenger advanced a theory of participation in which becoming knowledgeably skillful, participation, developing an identity, and belonging as a member of a community of practice stand in reciprocal relations, developing simultaneously as individuals participate as members of a particular community. In this manner, *the community serves as both context and content*, providing implicit and explicit structures that encourage community-accepted types of participation over other types.

Lave and Wenger (1991) advanced the term *communities of practice* to capture the importance of activity in fusing individuals to communities, and of communities in legitimizing individual practices. Within the context of these communities, learning is conceived as a trajectory in which learners move from *legitimate peripheral participant* to *core participant* of the community of practice. While participating in this trajectory, the primary motivation for learning involves doing activities that are meaningful to the community and that move the learner toward becoming more central to a community of practice. Roughly, a community of practice involves a group of people who are socially interdependent, and who share mutually-defined practices, beliefs, and understandings over an extended time frame in the pursuit of a shared enterprise (Barab & Duffy, 2000; Barab, MaKinster, & Scheckler, in press; Bellah, Madson, Sullivan, Swidler, & Tipton, 1985; Lave & Wenger, 1991; Roth, 1998; Wenger, 1998). Traweek (1988) defined a community as a "group of people who have a shared past, hope to have a shared future, have some means of acquiring new members, and have some means of recognizing and maintaining differences between themselves and other communities" (p. 6).

Predicated primarily on work in anthropology (Lave & Wenger, 1991; Traweek, 1988; Wenger, 1998) and education (Bradsher & Hogan, 1995; Brown et al., 1994; Brown & Duguid, 1991; Lipman, 1988; Sergiovanni, 1994; Tanner, 1997), Barab and Duffy (2000) identified four features as consistently present and, they argued, requisite to communities of practice. First, a community has a significant history, suggesting an overlapping cultural and historical heritage with which members can identify (Wenger, 1998). Second, a shared cosmology, especially related to shared goals, practices, belief systems, and collective stories that capture canonical practices (Brown & Campione, 1990). Third, the notion of community suggests something larger than any one member; as a part of something larger, the various members form a collective whole (a community) as they work toward the joint goals of the community and of the individual members (Lemke, 1997; Rogoff, 1990). Fourth, a community is constantly reproducing itself and evolving, such that new members contribute, support, and eventually lead the community into the future; new members move from peripheral participant to core member through a process of enculturation (Lave, 1993). Barab, MaKinster et al. (in press) elaborated on this list, suggesting that CoPs also include the following: (5) a common practice or mutual enterprise, or both, (6) opportunities for interactions and participation, (7) meaningful relationships, and (8) respect for diverse perspectives and minority views.

Given the above characteristics, Barab, MaKinster, et al. (in press) defined a *community of practice* (CoP) as "a persistent, sustained social network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history and experiences focused on a common practice and/or mutual enterprise" (p. 5). It is not necessarily an important point whether another researcher can add or delete indicators from the above list, or even produce a different definition, but the acknowledgement

that CoPs are more than a temporary coming together of individuals around a particular goal, for a workshop, or for a course. Similar to a living organism, they are self-organizing, and cannot be designed prima facae. They grow, evolve, and change dynamically, transcending any particular member and outliving any particular task (Barab et al., 1999). From this perspective, to speak of communities in a theoretically grounded manner is to acknowledge that communities emerge through interactions rather than design, and gain their richness, complexity, and opportunities for learning through their multigenerational structures and member pathways for movement through the community. A central design and research challenge is to understand the dynamics that characterize, drive, and maintain community functioning.

Traditionally, at least in anthropological circles, ethnography is the common methodological technique for understanding community life (Geertz, 1976; Marcus, 1998). This methodology involves extended engagement with the community being researched, frequently as a participant observer. In addition to participant observation and collected field notes, "ethnographers" frequently locate informants in the community, examine artifacts, and carry out interviews with community members (Emerson, Fritz, & Shaw, 1993). A common next step is to then sift through the data, creating codes for characterizing instances, combining codes to form larger categories, and resorting through the data to identify patterns and themes that allow the ethnographer to characterize community life. Another analytical lens that has proved useful for interpreting community life is to characterize community dynamics in terms of system *tensions* (Engeström, 1987), or what Wenger (1998) referred to as *dualities*.

Tensions, or dualities, refer to overlapping yet conflicting activities and needs that drive the dynamics of the system (Engeström, 1987). Engeström (1999) viewed tensions as characterizing system activity and driving system innovation. This is because conflicting needs require some degree of resolution, requiring members to make and advance commitments. However, core system tensions are not necessarily resolved, they simply involve situational resolutions as individuals make time and space commitments in terms of their contexts. For example, Sfard's (1998) discussion in which she contrasted in the academic community the use of the acquisition (an epistemology of ownership) and the participation metaphors (an epistemology of participation) suggested that neither perspective is the "right" one. In fact, how people come to know and learn has been of debate since the earliest philosophers of record (Lombardo, 1987). It is in part, however, this tension that drives educators towards identifying new theories of and explanations for how people learn. Another potentially irresolvable tension that most educators face is the tension between facilitating student-centered or using more didactic pedagogies in which teacher-directed lectures are central. Within teaching experience comes the understanding that some students require, and may even desire, more teacher control, while others prefer student ownership and independence. One can find similar tensions, and potentially intellectual camps, in all disciplines. The important point is that in systems,

whether cultural systems, entire districts, universities, or even the individual classroom, there exist multiple tensions that are not easily eliminated and that come to characterize important focal points around which system activity emerges. One could argue that disregarding system tensions by dogmatically favoring one side may lead to a lack of diversity that is unhealthy to the system in general (Dewey, 1963; Westheimer, 1998).

Wenger (1998) similarly discussed the importance of understanding community in terms of the interplay of system dualities (reification vs. participation; designed vs. emergent; local vs. global). Wenger (1998) wrote, "a duality is a single conceptual unit that is formed by two inseparable and mutually constitutive elements whose inherent tension and complementarity give the concept richness and dynamism" (p. 66). Barab, Marinster, et al. (in press) identified six dualities as an analytical lens for characterizing and illuminating the design struggles that arose in the design and implementation of their online community. It is important to note that although recognizing tensions can be an important part of understanding community dynamics, assigning specific needs or activities to one side or the other side of a continuum subverts the dynamics that are inherent to activity in vivo. "There is a fundamental difference between using a distinction to classify things (e.g., meanings, thoughts, knowledge, learning) as one pole or the other and using a distinction to describe an inherent interplay" (Wenger, 1998, p. 68). In other words, while the analytical lens of tensions or dualities provides a framework for characterizing community dynamics, the researcher needs to take care not to create firm divides or artificial boundaries between what is a community-enriching interplay. For example, rather than eliminating testing instruments and expectations with the hope of fostering individual ownership and validating student-owned activity, a design goal in CoT was to develop an accountability device that validates student-owned activity, while at the same time creating an appropriate standard.

In the following, we begin with an overview of this study, including a brief overview of the CoT ecology, participants, community structures, and then we describe our research methods. From here, the results section is structured around those core tensions that we identified as being central to characterizing community life. Our goal is to present these tensions in a manner that illuminates CoT community dynamics and that has experience-distant relevance for the reader (Geertz, 1983,a,b). Finally, we reflect on community dynamics and presented tensions to build interpretations that have experience-distant significance.

THIS STUDY

Ecology: A Community of Teachers

CoT is located within the School of Education (SoE) at Indiana University, which supports the third largest teacher education program in the country. Within the

teacher education program, numerous reform efforts are currently moving toward reconceptualizing the preparation of preservice teachers; however, CoT is not one that was created as part of the school-wide effort to bring about reform. CoT, a bottom-up effort, preceded this institutional effort. Although the CoT is a subcommunity within the SoE, the program and the community members maintain a somewhat separate identity and subculture. With respect to the regular SoE teacher education students, CoT recruits through open houses, recruitment days, and through mingling with potential recruits in shared courses. By and large, however, these two groups of students have little interaction with each other, and many SoE students (and even some faculty) do not even know that CoT exists. On the other side, most CoT members view their way of learning as "the only way to learn."

Another important part of the CoT context is that it is located in Indiana, a state currently exploring a major reform in which the government is attempting to convert the traditional exam-based teaching license to more portfolio-based forms of assessment. Traditionally, state licensure was based on satisfactory completion of an approved sequence of courses in an approved institution's teacher education program followed by passing the National Teaching Examination (NTE). As it now stands, an important part of CoT activity is that it does not explicitly prepare students to be successful on this test. This creates a certain tension in a program that does not "teach to the test." Although the new licensure process, based on building a portfolio of evidence, is not slated for another year, it is clearly an important part of the CoT context in that it is exactly what the program is currently doing.

Participants

The number of students participating in the CoT program changed each semester as three to four new members joined and old members graduated. Roughly, each of the three seminars researched for this study had 15 students with 60% being women. Approximately 90% were undergraduate, with similar proportions of sophomores, juniors, and seniors. The other 10% were graduate students returning to get their teacher certification. One of the strengths and challenges of CoT is its diversity, with students coming from a wide range of backgrounds and experiences. In addition to background experiences on entering the program, students participate in CoT for numerous years, and students who have been members for a longer period have additional life and classroom experiences. Each of the three current seminars is led by a separate university facilitator (faculty or advanced doctoral student) and, although all CoT members attended the same community governance meetings and adhere to the same expectations, each seminar has a unique "personality" with its own idiosyncratic informal and formal rules, norms, and beliefs. Whereas the students changed over the course of this study, it was the same three mentors both

years that the authors of this manuscript researched CoT. There were 2 faculty members, 1 man and 1 woman, and 1 woman doctoral student who led the seminars. The faculty member that was a man was 1 of the 2 founders of the program.

CoT Participant Structures

Participant structures are predicated, in part, on the goals and beliefs of the community members and are what allow the community to complete its work (Geertz, 1976). The only performance-based teacher education program in Indiana, CoT is grounded on the premise that, to change the way teachers teach, they must experience preferred ways to learn as integral parts of their professional preparation. The CoT goals and beliefs can be understood in terms of the six principles that are outlined in the COT (1993) community handbook "Words to Live By:"

- Community: Each seminar will bring together a heterogeneous collection of individuals working toward a shared goal.
- Personalization: Each student will have the freedom to create a unique and personalized path through the CoT program.
- Apprenticeships: Students find and work alongside a practicing teacher.
- Intensive Fieldwork: Students spend approximately 1 full day each week in the classroom with their mentor teacher.
- Authentic Performance: Students earn their teaching license through the accumulation of a body of evidence (develop a portfolio) that indicates their capacity to teach successfully in a school.
- Democratic Governance: Each member has the opportunity to propose program changes.

In the service of these principles, there are numerous participant structures, or community channels, which allow the group to do its work and, in the process, allow the community members to become knowledgeably skillful. We have grouped these structures in terms of functional categories generated through our data analysis (see Table 1), and we will briefly overview those that we have identified as central to community functioning. These will be further discussed in the next section as we describe the core tensions.

The *group collaboration structure* was the weekly seminar where members of a seminar came together to discuss various issues related to their growth as future teachers. Each of the three seminars is supported by a facilitator at the university (faculty or advanced doctoral student) and is composed of approximately 15 members who meet for weekly 3-hr sessions to discuss assigned readings, expectations, and their work in the schools. Students take turns leading the weekly sessions, planning presentations, bringing information to the group, and leading discussions

TABLE 1
CoT Participant Structure

Participant Structures	*Description*
Group collaboration structures	
Three seminars	The group of approximately 15 students and one university facilitator who meet weekly for 3 hr to discuss assigned readings, expectations, recruitment issues, and their work in the schools.
Community development structures	
Weekly meetings	When students used the weekly seminar to discuss issues related to the overall functioning of the community.
Community meetings	Where the members discussed issues related to the overall functioning of all three seminars.
Recruitment meetings	This included open houses that were hosted by current CoT students and that were open to the entire School of Education, as well as more informal meetings and interviews that CoT members carried out with School of Education students not enrolled in CoT.
Accountability structures	
Seminar attendance	Members were expected to attend the weekly seminars and complete the group decided-on readings.
Portfolio of evidence	The portfolio built by each student that contained evidence of completing the 30 Program Expectations.
Apprenticeship	Students were also expected to find and work in a classroom with a mentor teacher.
Field-experience structures	
Apprenticeship	Students were expected to, within the first month, start searching for a classroom mentor teacher where they would spend at least 1 day a week until student teaching at which point they would spend every day for 13 weeks in the classroom.

related to teaching and learning. Common to all seminars is the selection of a book of readings in which the seminar members are interested. Some of the semester themes that occurred during the 2 years we observed included learning disabilities, constructivism, technology in education, systemic reform, and classroom management. In addition, seminars developed specific assignments; for example, one group developed a group paper on what an innovative school would look like, while another seminar decided to have pairs present case studies from the field placements and contextualize them in terms of group readings.

There are various *community development structures* including ongoing discussions during the weekly seminars, a monthly "community" meeting in which

all three seminars came together to talk about the functioning of CoT, and recruitment meetings in which current members attempted to enlist new members. *Accountability structures* included seminar attendance, apprenticing in a secondary teacher's classroom, and completing the Program Expectations through the construction of a Portfolio of Evidence. The completed Portfolio of Evidence, as outlined in the Program Expectations (see Appendix), serves as the primary means of accountability for student work and is what fulfills state requirements for licensing. The final participant structure that we identified were the *field experience structures* and specifically the apprenticeship in which students are expected to visit classrooms and, eventually, select a teacher who will become their teacher mentor. The student is then expected to visit this teacher at least 1 day a week until she begins her term of student teaching, which involves full-time participation for at least 10 weeks.

Research Agenda

Consistent with anthropological contributions of community and culture (Clifford & Marcus, 1986; Lave & Wenger, 1991; Traweek, 1988), our broad research goal was to empirically understand the four interrelated domains of CoT community life: *ecology*, *social organization*, *cosmology*, and *developmental cycle* (Clifford & Marcus, 1986; Lave & Wenger, 1991; Traweek, 1988), and also investigate issues of identity formation, shared history, and reproducibility of the evolving community structure. *Ecology* pertains to the context in which the community resides, and how the community interacts with this context. *Social organization* is concerned with how the community structures itself to carry out its practices and maintain its identity, as well as those of its members. *Developmental cycle* refers to how the community continually reconfigures itself, and the process through which newcomers become knowledgeably skillful with respect to the practices which prompt them to become central members of the group. *Cosmology* is the community's system of beliefs, knowledge, and skills, including what is valued. Through an examination of the interrelations among these four domains, the ethnographer contributes her perspective of the culture of the community under study (Geertz, 1976; Marcus, 1998).

In contrast to the coldly objective researcher so central to positivist research, in ethnographic research investigators must become a part of the community if they wish to provide a credible account of the community and its practices. This requires that they develop a close and complex relationship with the community, and be aware of their "objective" and "subjective" understandings of the community, as well as the interaction between their observations and their "interpretations" and be vigilant about testing the validity of their interpretations to avoid misinterpretations (Jackson, 1996). In this study, we participated in community conversa-

tions, but tried to refrain from becoming focal points of conversation in seminars and stayed on the margins of community life.

During the data collection process, we used the constant–comparison method (Glaser & Strauss, 1967) to build experience-near understandings and we have framed these understandings in terms of "illuminative dualities" (discussed later) that we identified as characterizing community life and that were likely to have experience-distant significance. In this manner, rather than providing a "thick description," the central focus of this article is on building theme-based characterizations of the inner tensions of CoT life so as to better understand the community model for supporting learning. By presenting CoT in terms of identified tensions that also have broader significance we have attempted to balance "insider" and "outsider" perspectives (Fielding & Fielding, 1986; Silverman, 1993). Geertz (1983a) argued the following:

> Confinement to experience-near concepts leaves the ethnographer awash in immediacies, as well as entangled in vernacular. Confinement to experience-distant ones leaves him stranded in abstractions and smothered in jargon. (p. 57)

Building interpretations involved engaging in a dialectic between experience and interpretation through which we have worked to grasp the experience-near perspectives of the CoT members, while simultaneously illuminating relationships to the core tensions that we have described as central for understanding community life and that we view as having experience-distant significance (Clifford, 1983; Schwandt, 1997). Our goal in using tensions as an interpretive lens was to characterize and better understand existing community life and, at this time, not as a design intervention to change future system dynamics. However, clearly an outcome of this work will be to reflect on these findings along with student community members and seminar facilitators so that we can improve the CoT program.

Data Collection–Analysis

Data collection. Consistent with an ethnomethodological approach (Silverman, 1993), extensive observations, semistructured and informal interviews, and document analysis formed the basis of our overall data collection efforts. Four investigators participated in all the seminar meetings of each of the three CoT seminars for an entire academic year (135 hr per seminar) and in two of the seminars for an additional year, also visiting six high school sites where CoT members were working with their selected secondary teacher mentors. To develop trust

among the community members, we participated in weekly seminar discussions and attended community activities. During these seminar meetings, we, the participant observers, audiotaped all group conversations, took open-ended field notes, and recorded who was talking, on what topic, and for how long. The nine visits to the six secondary schools involved taking additional field notes and conducting interviews with mentor teachers. Electronic mail correspondence and asynchronous communications among the seminar members in an online forum provided additional data, as did examination of six student portfolios.

Data collection also included carrying out eight semistructured interviews, as well as informal discussions with CoT members and each of the facilitators to pursue emerging hypotheses, to gain additional insights into the community's social structure and cosmology, and to provide checks on the credibility of the interpretations. Although we are conducting separate studies on focused portions of the data (Barab, Gregory, Klein, & Schank, 2000), this analysis has the more general goal of contextualizing community life more broadly, drawing on data and analysis from field notes, interviews, questionnaires, printed electronic mail, and portfolios.

As part of the data collection process, we had weekly meetings to debrief field notes, coordinate collected data, and to develop grounded interpretations about each aspect of community life. Consistent with the constant–comparative method of analysis (Glaser & Strauss, 1967), this process involved asking questions of and making comparisons among the data and the theory so as to generate interpretations and to direct data collection efforts the following week. In this way, the data and the emergent hypotheses interacted in a dialectic fashion, reciprocally informing and being informed by the other (Lather, 1986), and allowing us to develop heightened sensitivity to the research issues (Erlandson, Harris, Skipper, & Allen, 1993), as well as to develop grounded accounts of community life (Glaser & Strauss, 1967). It is here that we entertained dialogue with previous theory and current data, using these meetings to develop "theoretical sensitivity" (Schatzman & Strauss, 1973; Strauss & Corbin, 1990). During these meetings, we also deconstructed our own assumptions and verified the credibility and trustworthiness of each participant–observer's interpretations (Lincoln & Guba, 1985). At the end of the seminar observations, we then met for 15 four-hr sessions, and further analyzed the data to refine emergent themes, build audit trails, and identify further evidence for the evolving assertions. In organizing the data and our emerging interpretations, we used the qualitative software package NUDIST, a database program that allows the researcher to code, analyze, and sort chunks of text based data on emerging categories defined by the researcher.

Data analysis. We imported over 300 single-spaced pages of data (field notes, interview data, e-mail interactions, portfolio descriptions) into NUDIST

and, through open coding (Strauss & Corbin, 1990), chunked this data into 136 separate codes. From here, we collapsed these codes into 26 broad categories, which were then grouped in terms of the four domains of community life (ecology, social organization, cosmology, developmental cycle), and used to write up an initial thick description. This initial thick description attempted to capture the community from an experience-near perspective. Next, we analyzed this thick description and the coded database to identify the salient tensions that best characterized community life. Through this process we advanced four tensions that constituted the "Core Tensions" section of this article. Consistent with our earlier work using *Activity Theory*[1] as a theoretical lens to understand complex learning environments (Barab, 2002; Barab, Squire, Barnett, Yamagata-Lynch, & Keating, in press), we have chosen to use these identified *tensions* to frame this reporting of the data. In Activity Theory, tensions are the internal contradictions in a system that characterize a system and drive innovation and change within the system (Engeström, 1987, 1993, 1999; Leont'ev, 1974). As such, understanding the core tensions of any system becomes critical to understanding the system itself.

In identifying the tensions we began with a "thick description" of community life. Once we had generated this thick description of the community and identified what we interpreted as core tensions, we circulated the manuscript to our colleagues and to CoT members for review. We asked readers to focus on whether the identified tensions, now explicitly stated as conclusions, captured the essence of the thick description (our colleagues) or their personal experience or both (CoT members).[2] All three seminar leaders plus two students from each seminar reviewed the thick description. The researchers then met with each of these readers, discussed the manuscript, and generated a list of issues for further examination. Based on these concerns, the researchers met again, debriefed our notes with par-

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[1]Activity Theory is a psychological theory with a naturalistic emphasis that offers a framework for describing activity and provides a set of perspectives on practice that interlink individual and social levels (see Engeström, 1987, 1993; Leont'ev, 1974, 1981, 1989; Nardi, 1996; Vygotsky, 1978). When discussing activity, activity theorists are not simply concerned with "doing" as a disembodied action, but are referring to "doing in order to transform something," with the focus on the contextualized activity of the system as a whole (Barab, 2002; Engeström, 1987, 1993).

[2]In building our illuminative, theme-based description of CoT, we became concerned that the voices of community participants might not be adequately represented in this text. A comprehensive account that truly situates the reader within the experience-near, idiosyncratic occurrences and the complex dynamics that characterized our observations of each seminar is beyond the space limitations of a journal article. Our goals were more modest. Instead of immersing the reader in an ethnographic account of any one seminar, our goal was to illuminate the emergent themes as illuminative tensions or system dualities that we found across seminars, emphasizing their reflexive relations with the four domains of community life. Thus, rather than building ethnographic stories that would present the data through the eyes of each community member, we decided to report the data in terms of how they relate to each theme. Although not providing a complete ethnographic account, in one CoT member's words, "it captures the essence of my experience."

ticipants, and created a list of issues to explore further. Then, we returned to the data to look for additional examples to illuminate the data or to refute developing assertions. For example, to explore more deeply tensions surrounding ownership of portfolios, we returned to a tape-recorded discussion seminar sessions in which the portfolio was discussed.

At this point, the researchers also turned to the literature to gain an experience-distant account of tensions that other researchers had identified as salient in related research. Specifically, we examined literature surrounding learning as participation in a community of practice (Barab & Duffy, 2000; Lave & Wenger, 1991; Wenger, 1998), activity theory (Engeström, 1993), teacher-education reform (Beyer, 1983; Cochran-Smith, 1991; Cochran-Smith & Lytle, 1999a, 1999b; Grossman, 1992; Kagan, 1992; Richardson, 1996; Soltis, 1994), learning as doing (Wertsch, 1998), reflective practice (Clift et al., 1990; Schön, 1987), teacher's roles in student-centered environments (Resnick, 1987; Savery & Duffy, 1996), and portfolio assessment (Barton & Collins, 1993; Shannon et al., 1995; Vavrus & Collins, 1991; Weinberger & Didham, 1987) to explore how the themes presented in the initial manuscript and in following discussions related to issues explored in the educational research community more broadly. Based on reviewer feedback, our subsequent data analysis, and our review of the literature discussed earlier, we condensed our manuscript, removed one tension, and added an additional tension, and then reframed the manuscript so that the entire article (not simply the conclusions as in the initial manuscript) was organized around these tensions. These four tensions are listed in Table 2, and are instantiated in greater detail with empirical data in the "Core Tensions" section. We believe that organizing the manuscript in this fashion, as opposed to simply a "thick description," allows the reader to more easily make connections among the experience-near happenings of CoT and the experience-distant topics of concern commonly illuminated in the literature.

CORE TENSIONS

In this section, we discuss the four core tensions we identified as characterizing community life with the goal of providing the reader an experience-near feel of the CoT program while at the same time presenting these tensions in a manner that will provide the reader insight into other communities intentionally designed to support

TABLE 2
Core Tensions Characterizing CoT

1. Instructor as facilitator and as gatekeeper.
2. Learning theory and doing practice.
3. Portfolio as supporting reflection and as accountability device.
4. Stability and change.

learning. Although the interplay within each tension is presented separately, the reader will note that each tension does not exist orthogonal to the next; instead, they each overlap and struggles associated with one tension also are related to and provide insight into other tensions. Frequently, when coding data, a particular unit might be associated with two or three tensions. As such, although parsing up experience into distinct categories may be useful for presentation, it is clearly not representative of experience in situ.

Instructor as Facilitator and as Gatekeeper

The CoT program is based on a distributed notion of power with democratic ideals governing most aspects of CoT life. Students are responsible for developing and implementing their own professional preparation in becoming a teacher, and for selecting a mentor teacher in a secondary school with whom they will work until graduation. Through seminar participation they also negotiate membership as part of a community of students who are studying to be teachers. The primary role of the instructor was to be a facilitator, supporting students as they embarked on their professional development. As a sustained member of the community, the facilitator participates in seminar discussions, supports students by identifying gaps in their understanding, and serves as a "stand-in" for the surrounding communities to which the learners are becoming enculturated. Terms the facilitators used to characterize their function included, "modeling," "facilitating," reminding," "guiding," reinforcing," and "trusting in the CoT system."

Weekly seminar sessions were run by students who volunteered to lead for the week. Each seminar developed its syllabus as a group, as opposed to inheriting the instructor's agenda. Seminar discussions created an opportunity for students to challenge their understandings of particular issues, and to gain insights from their peers and the facilitator. For example, on one occasion, Janet, a CoT member who was teaching in her mentor's classroom, shared her frustration with students using the word *gay* in a derogatory fashion. In the dialogue below, Janet first introduced the situation in terms of meeting a Program Expectation, "Human Rights." However, over the course of the dialogue it became an opportunity to reflect on teaching practices and even led to the creation of future lessons. It was in this discussion that we see the role of the facilitator as she interjects her understanding of reflective practice.

Janet: I don't know how to document something I do every day, which is I refuse to allow students to use the word "gay" as an insult in my classroom. But how do you document that?

Max: Do you do it less now, do you have to do it less now than you used to?

Robert: I would say that if you notice over time that it happens less and less, you could note that, that you seem to be making some kind of impact.

The conversation then switched from discussion about expectations to being a reflective practitioner.

Kenya: Do you keep a daily journal, at all, for your classroom?
Janet: I haven't for the last week, but yeah.
Kenya: That might be the kind of thing to note in there. Like Robert was saying, because you could note things like, hey they really have stopped using this stuff, or they're becoming more aware of appropriate language use. I've noticed it's stopped in certain classes.

The seminar facilitator then steps in to highlight and provide direction for carrying out reflection.

Facilitator: Or, if it doesn't stop. Then Janet's sort of reflecting on why is this not changing? What are some of the issues? In other words, be able to step back and think about this issue and what she's tried to do. And telling the story. This was the problem; this is what was occurring that I was uncomfortable with. These are some of the strategies. There's been no change. Why? What could I be doing?

The conversation then shifted to a discussion of classroom practice.

Don: How do you punish the students? Do you just say, "Don't say that"?
Janet: Well, I tell them that it offends me personally. And they all seem—every time I've said it—they've been like, "oh." It's not a punishment thing. I mean, it's not something I would punish them for. It's something that, I've actually said, "It hurts me when you say that. Please don't do it." And that really affects them.
Kerri: I've sometimes told different students that it would be like me using their name in a derogatory way, if I were to say, "Oh my gosh, that's so Chris of you." Meaning that is was just the lamest thing that I'd ever seen anyone do. And that seemed to make sense to them.

Then Jeff, a senior member, related the conservation to lesson implementation.

Jeff: Okay, so how about having them write something out about, like, if they were to use, say "That was really gay," or "That's gay;

don't do that." Have them write out, like a page report on this article [pointing to a newspaper article about the murder of Matthew Shepard] or on what it means to put others down.

Janet, building on this suggestion, then created a lesson sensitizing students to these issues. The role of the facilitator in this case was not to lecture students, but to support the discussion and step in when it seemed to be sidetracked. Because CoT has students who have been participating as a community member for 2 or 3 years, the burden of facilitator to structure the learning process was minimized as the veterans shared their experience and suggestions. However, over the 2 years of observation, responsibility waned based on the nature of the conversation and whether there was a disproportionate number of new people in the seminar.

Although all three facilitators described their role as that of supporting students in running the seminar and in carrying out their professional development, in practice the role and responsibilities of the facilitator varied both across seminars and within a seminar over time. For example, in one of the seminars, the facilitator began with a proactive, "leader" style given the ratio of newcomers to old-timers in his seminar (13:3). Over the next semester, as the members became more experienced, he evolved into a less directive and more facilitative role. Both facilitators in the other seminars were usually less directive, frequently participating in much the same way as the students did. Because the facilitators have remained with their particular seminar for a minimum of 2 years and, in one case, since the program's inception, each facilitator has a rich history with the seminar, and an impression of what kind of leadership might best facilitate the seminar that particular semester. Nevertheless, a continual challenge for the facilitators was how much structure they should exert on group activities and to allow the seminar to continually reinvent iteslf. Facilitators balanced the need for providing direction to ensure a productive learning experience for students with the need to allow students to grapple with issues that were integral to the seminar's purpose and character. As evident in the following example taken from discussion around the previous semester's evaluation, balancing such tensions was often vexatious.

Student: [in a sarcastic tone] We had a theme? I didn't feel like there was a cohesive element. All right, the curriculum unit. The key is direction. What do you [referring to the facilitator] want? If there is one comment I would like to make, tell us what you want.

Facilitator: It is easy to hold the theme too tightly, but also too loosely. The statement about what do you want is quite a strong statement. In a way I am trying to hold things together, and I often err one way or another, but when I do err I often err on the side of less direction. That is purposeful, because you need to provide your own direction, and I don't help you a lot when I just tell you here is the way to do it. There is a struggle in invention, I think. I can't protect you from that.

This statement reflects the instructor's goal of supporting student struggle so that students may take ownership over the seminar and engage in the process of directing their seminar. In other words, she conceptualizes her role as supporting, rather than directing, students' participation in the seminar.

As teacher educators, facilitators were "gatekeepers" of the teaching profession. Because of their overlapping relations with the culture, it was their responsibility to act as gatekeeper, recognizing pitfalls and providing corrective feedback so as to aid the learner in the enculturation process. Primarily, this shift in roles, from facilitator to gatekeeper, occurred when students had been in the program multiple semesters and were not making adequate progress toward finding a mentor, or when students submitted their portfolios. We observed occasions in which facilitators confronted students who were in their fourth semester in the program and had not yet found a mentor, presenting them with a choice: "find a mentor or take a sabbatical from the program." In these cases, the facilitators felt compelled to enforce CoT expectations that working with a mentor is a significant aspect of participation in the program. In interviews, one instructor commented that as a teacher educator, he felt obligated to ensure that students were prepared to be sound teachers. If he did not see evidence of this capability in portfolios, then he would push students to complete the expectations more fully. Facilitators reported that deciding when to intervene for students finding mentors and how far to push students in completing their portfolios was at times difficult. Similarly, we observed students expressing frustration when the once-supportive facilitator now acted as gatekeeper.

In addition, the facilitators at times took it on themselves to initiate structural changes in the community. For example, in the recent revisions of the Program Expectations it was the facilitators, partly as a result of student comments, who actually spent the summer revising the Program Expectations. When they completed these revisions they were then reviewed with final changes being made at an all-seminar community meeting. All three facilitators expressed that a core tension in CoT was how to increase student ownership and decrease facilitator control in community governance. From one student's perspective, this lack of taking ownership is partly attributed to his impression, as stated to us in an interview, that his ideas will not make a difference. "It is like King Kong [the facilitator] reaching out and grabbing airplanes [student suggestions] and banging them into buildings." Another student, in contrast, stated in an interview, "CoT is my program. I am in charge of my growth as a teacher." Although students sometimes had difficulty taking ownership in program governance, they had little difficulty in taking responsibility for the process of choosing a mentor teacher—a process that was squarely on their shoulders.

In spite of the challenges in navigating these roles, all three facilitators commented that working as part of CoT was rejuvenating. One of the two faculty facilitators stated,

> I had been getting tired, but working with [the other two seminar facilitators] was rejuvenating. They made it exciting to be teaching. I was now growing with my colleagues, with the support and direction of my colleagues. Before CoT, teaching was mostly a solitary event that I did away from my colleagues.

All three facilitators also talked about how much they were learning from the individual students and from the seminar as a whole. One facilitator stated, "I like that I don't have to know everything, that I really can learn from my students, and that they see that as part of their responsibility." As we discuss later, many of the new students were unwilling or unable to immediately take on this new role of student. One student said, "It is hard, I guess sometimes I just want to be told what to do." However, in the community context, where students can observe more experienced peers model this type of learning, they were able to slowly appropriate the necessary skills and take on the responsibility of being in charge of directing their own learning process. In spite of the program being student- or community-directed (as opposed to controlled by the instructor of record), we found few examples over the 2 years in which students floundered—wanting more direction or wondering off aimlessly in their teacher preparation process. The challenge for the instructor was to balance her role as gatekeeper and as facilitator, shifting back and forth as the occasions demanded.

Learning Theory and Doing Practice

A central assumption of the program is that being in a secondary classroom on a regular basis is a more realistic way of learning teaching methods and tools than the traditional university classroom setting. One facilitator stated that, "they need to start with the specific and then the general," indicating the importance of students reflecting on best practices in terms of their experience and not as a set of abstracted facts presented by a professor. Many members of CoT joined the program because they felt that this method of learning coupled with portfolio assessment would make them better teachers and prepare them more fully for the challenges of student teaching than would traditional models of instruction. The CoT members consistently voiced that they did not want to have a program where abstract and general ideas are discussed. On the flip side, a concern of the facilitators was how to transcend the traditional practices that were frequently occurring in schools, while also having a highly "field-based" program. Our interviews with students and with facilitators, discussions in the seminar, and examination of e-mail exchanges all indicated the community's awareness of this tension.

CoT members valued teaching skills, particularly those developed in the context of an actual secondary school setting. Readings and reflections on teaching

were important to this community, which is why students were expected to attend the university-based seminar, but their importance was dependent on students' contextualized experience. Overwhelmingly, community members valued the process behind CoT—that is, the guiding assumption that one becomes a teacher primarily through teaching, through reflection on teaching, and through participation in the dialogue and community-building that occurs during the on-campus seminar—not through being exposed to abstracted facts in a college classroom. As novice teachers, they believed that the sooner that they can gain teaching experience in an actual secondary context, the sooner they can implement and evolve their teaching skills. The design of CoT reifies this belief, as students are in classrooms from the very beginning often become actively involved in a classroom as quickly as their second semester in the program. This view was echoed by both facilitators and students alike:

Facilitator: It is necessary to get students out there teaching rather than just learning about this theory or that theory. They need to be in the field learning and experiencing what it is like to be a real teacher day after day.

Student Teacher: [advising a new member] Get into the schools as soon as you can, but visit and choose carefully. Working 2 years with my mentor before[student] teaching was great: learning by doing is the way to go—kind of like riding a bike.

Readings, which often included first-hand teacher accounts, were often met critically, if not rejected outright. In one seminar, the relative lack of value assigned to the readings was often reiterated by the seminar participants. This tension might be thought of as the familiar tension between what is suggested and prescribed by educational theory, and the realities that shape the learners' experiences in actual school settings. In the following dialogue we see this tension, as well as glimpse the dynamic interactions that characterized the meaning making that occurred through participation in seminars. In addition, we again see the democratic governance in which every community member contributes to determining how the program will evolve to meet new challenges. This interaction about Freire's *Pedagogy of the Oppressed*, a book adopted by a seminar at the passionate suggestion of one community member, typified the continual tension that underlies much of CoT more generally.

Larry: I hated this book. I thought it to be a profound work in academic common sense, but not nearly worth the nine dollars I had to spend on it. I guess it was revolutionary, but come on, I could have told you that student choice is better than teacher-run dictatorship for free. Overall, I didn't like the seminar this semester. Now let me

qualify. The readings didn't further my knowledge of education this semester. They were very nice, but I would like to have seen something more practical than beginning a revolution. I would like to revert back to the idea of practicality.

The faculty mentor, who also has a bias towards practicality, agreed with Larry:

Facilitator: I agree with that. Sometimes the most important thing we do in the seminar is the old hand thing, Crisis Du Jour. Where you bring in problems from the field, and we discuss them.

However, another student, Bill, had strong counter-opinions, arguing that theory is useful and not something that we should ignore.

Bill: We too often discount idealism and theory, and especially in here. You can view it as a radical program. If you are in here then you are admitting that some change needs to be made in how we do schooling in America. So inherent in change is idealism … But it is mixing that idealism, the notion of change, with the real experience, getting in, seeing what it really is that can produce an effective change. If you go in there with strict idealism refusing to hear what they have to say you can't make anything work. So I think they complement one another, but there has to be tension because they are different but they are both important.

Sam: I like what you are saying. I think what we do here is cultivate some kind of vision.

Julie: See, idealism is great, it's wonderful, and all of that, but it gets bumped and bruised. That is the problem. You have to realize that idealism never remains crystal, and especially if you are going to apply it to the real world. If you apply it to the real world it is going to get a bloody nose. Hopefully together we can help heal the idealism, and build that bridge to practicality.

Larry: The book [Paulo Freire's *Pedagogy of the Oppressed*] it is a wonderful idealistic work, and it is all muddled theory with all these new different vocabulary words and new mix of Catholicism and Marxism, and it did not work. I wish that less time was taken up with less of that mess. I wish that more of my time was working on the portfolio. Actually working on things that are getting towards certification which I need.

Bill: I'm sorry. I find that very narrow, idealistic stuff, useful! Who is to say something like that couldn't have good effects.

Inherent in this discussion is the tension between theory and practice; it also illuminates the richness of group discussions in CoT. The students then proceeded to negotiate the next semester's readings and activities.

For the most part, students' instructional skills were developed while working with their mentor teacher. An apprentice relationship is formed with one teacher based on a social negotiation through which there is a cooperative determination that the relationship will be mutually beneficial. Here, the apprentice has the opportunity to observe teachers teaching in K–12 classroom contexts, and question them about their practices. Although there was no typical trajectory, students often began participating in the classroom by volunteering to grade papers and to provide remedial or one-on-one instruction, evolving into opportunities for them to actually teach an entire lesson. These experiences would be shared with the other members in seminar discussions. It was through these apprenticeship experiences in secondary classrooms that students tested and developed understandings of what constitutes effective teaching and learning.

When CoT was most vibrant, dynamic, and relevant, theory and practice became two sides of the same coin; members discussed their experiences informed by practice and used their teaching experience to elucidate theory. For example, during one discussion Stuart stated,

> Friday was awful. It was the worst day I have ever had in a school. The one kid that we [the mentor teacher] have had problems with before was trying to be buddy-buddy, but then he was openly defiant and challenging me [saying] "you're not my teacher and I don't have to do what you say!" They were playing with a yo-yo. I just walked up to them and told them to put the yo-yo away. That is where it [the incident] happened.

The class then talked about why the student might have gotten frustrated and what were some possible alternative ways of handling the situation. One student pointed out that in the readings they talked about keeping boundaries with your students, and another student stated that dealing with classroom management has been one of the largest challenges of being in the classroom. Another student talked about the importance of allowing the student to "save face," a tactic that Stuart said his mentor teacher also mentioned.

In addition to their actual classroom experiences, students discussed course readings, recruitment activities, the overall CoT program and their particular seminar's operation, group projects, or other issues that the group found important. The common set of readings, personal experiences, and stories about their field experiences created a shared knowledge base as well as a common heritage among members. Old-timers within the community helped former members' experiences live on as they shared these with newcomers. At times, it was through these group discussions that students' understandings and conceptions of what constitutes "best

practice" transcended the practices that occurred in many of the schools in which they were working. For example, as students discussed the types of evidence they would use to fulfill Program Expectations they pushed themselves, each other, and their facilitators to think deeply about how these expectations related to what they were doing in the field. It was in this way that students' thinking about teaching was not simply contextualized through applied practice, but also through individual and collaborative reflections on practice, especially regarding how the practices they were contemplating related to the principles of best teaching codified in the 30 Program Expectations and to course readings.

Although the seminar discussions often yielded fruitful conversations in which community members could synthesize their experiences, work through theoretical notions, and share their struggles, at times they also failed to produce meaningful experiences for participants. Sometimes, the seminars would focus too exclusively on personal experience, remaining uninformed by factual knowledge or theoretical issues raised in the literature. Indeed, this lack of foundation created anxiety for a few participants. With a lack of grounding in the literature, or input from the teacher-education community (except through the filter of the seminar facilitator), the seminars ran the risk of becoming impoverished by focusing to much on local experiences, thus reifying traditional education practices rather than transforming them. To a group committed to transforming practice, this tension was problematic. Conversely, other seminar meetings, such as the one that discussed Freire, had some members feeling as if there was too much focus on theory, and not enough emphasis on practical information.

From the perspective of the CoT members, and consistent with our observations, it is the reflexive relations among the field placement, collecting evidence for the portfolio, the seminar discussions, and discussions with the facilitator that allow CoT to be an effective teacher-education program. At times this was realized in CoT, and at other times the conversations were theoretically vacuous or too abstract. Rather than conceptualize "theory versus practice" as an either/or exchange, we observed it functioning as a dynamic relationship in CoT. Meaningful experiences were those in which theory and practice were both called on to inform discussion on teaching, a student's reflection her teaching, or a student's development of learning materials, which usually occurred as part of the portfolio process.

Portfolio as Supporting Reflection and as Accountability Device

Each student arranged an accumulating body of evidence in a portfolio that served five critical functions: it represented a convincing case to CoT faculty that the person was ready to teach, it conveyed to prospective employers the student's potential as a prospective teacher, it provided students with a model of best-assessment prac-

tices, it provided the student with an opportunity to reflect on her own strengths and challenges, and, related to the last point, it supported personal–professional growth by stimulating the student to engage in best practices teaching practices, as identified by the student, her seminar, her facilitator, and her mentoring teacher. Given that seminar grades were satisfactory–fail, the only technical requirements each semester were that students attend seminar, spend a full day (or 2 half days) a week in schools, and that they complete at least one Program Expectation per semester they were in the program. Individuals who joined the seminar during their junior year could use completed courses to satisfy particular expectations (e.g., taking the introductory technology course can substitute for the Technology Expectation) and, therefore, participation in the program was shorter than for students entering their sophomore year. However, the program was not time-based, so how a student progressed through the program was highly dependent on the individual.

Portfolios were intended to be evidence of students' ability to carry out best practice and the content "belongs" to the students, allowing for student ownership over the experiences represented by the portfolio. The completed Expectations served as the primary means of accountability for student work and were what fulfills state requirements for licensing. Each of the Program Expectations (e.g., "Empowering Students," "Initiating Change," "Teacher as Learner," "Self-directed Learners," "Expressing Convictions," "Families as Allies") were outlined in the "Program Expectations Guidelines" (see Appendix & http://www.indiana.edu/~comteach/expectations.html). The overriding principles under which the 30 Expectations were organized are consistent with Indiana's 10 principles of performance, which were correlated with the national Interstate New Teacher Assessment and Support Consortium standards. Evidence for completing a program Expectation included compiled artifacts (lesson plans, teaching materials, video and audio tapes, websites, student work, etc.), statements from others about their teaching (student evaluations, testimonials, recommendations from mentor teachers), and personal statements about various aspects of teaching (papers, for university classes, journal reflections, comments about outside articles gathered). Although each seminar had informal guidelines and rough explanations regarding what constitutes sufficient evidence for meeting an Expectation, there was not a standardized rubric that was applied uniformly. Even though at times this created frustration for students who were told by their seminar leader that the evidence was not adequate, this lack of standardization was also considered a strength of the program in that each student can individually tailor the type of evidence they include in their portfolio.

The evidence for fulfilling expectations comes from four sets of experiences: out-of-school life, academic school work, seminar colleague interactions, and, most important, apprenticeship or field experiences. Each student was responsible for collecting what she decided constituted evidence for a particular Expectation. Completed sections of portfolios were submitted to the facilitators each semester. They were then reviewed by the facilitator who provided feedback. For example,

one student received the following comments for the Expectation, *Examining One's Practice*:

> The 2 papers are a wonderful start on this folder. I think the only thing you need to do to really nail this folder is develop the practice of having the kids evaluate your teaching. Try giving them two or three questions every few weeks that will give you information that will help you build evidence in some Expectations you're having trouble finishing. No matter what questions you ask about your teaching, developing the habit of examining your practice not just through your eyes, but the eyes of others will be great evidence for this folder.

Building the portfolio was an iterative process with the particular evidence evolving based on the feedback and future experience. In this way, students, through an examination of their portfolio, gained an appreciation for their strengths and areas that are still in need of work. In this manner, the portfolio provided accountability while at the same time supported professional development.

Because each individual created her own evidence, the responsibility for learning was placed on the student, forcing her to decide what counted as good teaching. During the seminars we saw numerous occasions in which a student would state that he was missing an Expectation. The statement would prompt discussion about areas students were missing in their professional development. For example, on one occasion a student stated that she had nothing in the "Families as Allies" Expectation category. This then prompted a seminar discussion around that particular Expectation, and resulted in her developing a Website for the parents of her students, which also became evidence in support of another Program Expectation, "Technology." Later in the semester, she shared how parents had told her that this was an invaluable resource. Her experience prompted another CoT member to state that she would make this a part of her classroom practice as well, especially during her student teaching.

At times, students viewed the portfolio as an accountability structure, and at other times it was a structure that promoted reflection.

> Sam: It seems to me that the portfolio is kind of get through red tape. It is so we can get our license and demonstrate, it is a way of assessment, what we have done, learned and experience. I see that kind of an individual thing, and if what we need are workshops then great. I have a problem with the lack of time we have in class. It seems to me that there seems to be more significant things that we can work on.
>
> Jill: I would consider it more than just assessment. I would consider it assessment for the sake of learning, not only about what you have

done and how you have accomplished it for your goal. But so other people can see and incorporate what you have done. So it is not only a matter of a board assessing do you have these skills to be a teacher, but as a community learning from each other what you did in your classes besides just what we are talking about. Once you write your own, then you can use that shared knowledge.

Max: Also, there is one in particular that I am particular proud of, teaching for problem solving. I was going to lead my class and talk about Christopher Columbus, but it ended being a discussion around Democracy. I was really talking with the kids and really hearing what are they saying. It was a really powerful experience. I sat there all night till the early hours of the morning putting this whole thing together and sealing it up. When I was done with that folder. It was not something I saw as this is going to be the red tape, this is what I have to do get my license. I said this is something I want to share with the community. I want people to hear what happened with me. I want that to maybe spark an idea in them.

In either case, it was the portfolio that served as the main accountability structure for the program, and, in part, it is the quality of the completed portfolios that serves as a confirmation of the quality of CoT as a mechanism for preparing preservice teachers. However, completion of the portfolios clearly posed some challenges in practice.

Although students select which evidence to place in their portfolio, the quality of student evidence was primarily determined by each seminar facilitator, and frequently the first piece of evidence was not complete enough. There tended to be two or three iterations of the process: student submission, facilitator feedback, collecting additional evidence, and student resubmission. At times, the seminar facilitator and the student disagreed on what constituted sufficient evidence to complete an Expectation, but most students tended to agree with the feedback and made the necessary changes. However, the fact that the seminar facilitator frequently had the final say led to some debate among the instructor and some students wanting to graduate. This created a tension for the facilitator in a democratically run program, with the facilitator recognizing that the portfolio provided evidence, in lieu of state- and university-approved mechanisms (e.g., sequence of courses), to persuade the teaching community that a student was ready to teach. As such, he viewed it as his responsibility to ensure the completeness of the portfolio. During an interview, the facilitator stated, "In a way it must become my portfolio when I am judging evidence for licensing." At this point, the portfolio might be described as fulfilling the teaching community's expectations and not the particular student's. Two recent facilitator-decreed changes to support students in completing the portfolio process were the creation of the "1–10–20 rule" (complete at least one

expectation each semester, 10 to apply for student teaching, and 20 before beginning student teaching), and in two cases, putting fourth semester students who had not found a teacher mentor on "sabbatical" until they found a mentor.

Barton and Collins (1993) discussed the importance of having the portfolio author carefully consider the purpose of the portfolio and suggest that determining the purpose of the portfolio may be the most important part of the process. These cases support this recommendation, as the portfolio as supporting reflection versus accountability device tension, in many respects, reflects an uncertainty about the purpose of the portfolio. Many of the students who we witnessed as having unsuccessful portfolio experiences did not outline goals for the portfolio early on in the process. They did not consider how the portfolio was going to support their becoming a teacher and then use it appropriately. Similarly, other students did not acknowledge the social function of the portfolio, namely, its importance in the political process of licensure. As the preceding discussion with Jill, Max, and Sam illustrates, when these many purposes were considered and negotiated, the tensions within the community eased as students realized that the portfolio was not only their own; it was their way of communicating to the teacher community their preparedness to teach. In this way, the process of negotiating the portfolio's purpose was in this community, a social process as well as an individual process.

Thus, the completed portfolios embodied students' lives and teaching experiences with respect to the principles of "best practices" that guided the creation of the Program Expectation Guidelines. Elsewhere, we have analyzed the quality of the evidence that students include in the portfolios, as well as more closely examining the portfolio building process. Here, we will provide a brief overview of those findings so as to provide the reader with an appreciation for the quality of student work. In evaluating the quality of the portfolios, we interviewed students, seminar facilitators, and read literature related to teacher portfolios (Barton & Collins, 1993; Mabry, 1999; Wiggins, 1989, 1992) to generate a rubric based on four dimensions:

1. *Source of Evidence* (actual curricular materials or videotape of lesson vs. reflective essay on the lesson).
2. *Context of Experience* (experience in actual K–12 classroom setting vs. on-campus assignment for a class).
3. *Quality of Experience* (made an important learning contribution or supported students' misunderstandings).
4. *Nature of Reflection* (reflecting on how experience relates to professional growth or simply a recap of what occurred).

Although we are still in the process of completing that study, initial findings do shed light on the quality of student learning.

In general, when examining the portfolio of 30 Expectations we were struck by the thought, the care, the amount of work, and the quality of evidence students selected. Of the seven portfolios analyzed, even when excluding student class papers, all included over 200 pages of evidence. Some of the more common types of evidence included lesson plans, student-developed worksheets, examples of student work, reflections, comments from the mentoring teacher, and completed work for university classes. Even though initial submissions tended to include primarily university assignments, by the time students turned in their final portfolios there were substantial amounts of evidence that came from work in the classroom with students. With respect to our third dimension, Quality of Experience, there tended to be more variance on the quality of experience. Although some of the evidence clearly demonstrated "best practice," other evidence was less rich in terms of indicating that students were engaged in nontraditional teacher practices. Our current analysis involves examining the quality of experience as captured in the portfolio evidence as well as observing students in the classroom. In terms of the last category of analysis, Nature of Reflection, our results did not suggest that students, through their reflections, were relating what they were doing in the classroom to course readings or other theory about best practice. Although one could argue that through participation in CoT students were appropriating these intuitively, we would have preferred to see students making explicit connection between theory and practice directly in their portfolios.

In sum, the portfolio both supported quality work and meaningful reflection while serving as a performance-based accountability device. The challenge was to support students in using the portfolio as a means of document or facilitating meaningful practice, while at the same time holding the quality to high standards because it also serves as the primary accountability device of CoT.

Stability and Change

A community of practice is an entity that has structure and identity that is constitutive of, but different from, its individual members (Barab & Duffy, 2000; Lave & Wenger, 1991). This community identity, which, in the case of CoT, can be thought of as the classroom culture, is constantly reproducing itself such that new members contribute, support, and eventually evolve the community. However, in spite of new members changing the seminar culture, the seminar also has a common history. This history provides continuity, creating a stable structure for student participation so that newcomers were not left to recreate the boundary constraints anew each time, in that many of the community structures were passed from one semester to the next. While this history did create a stable structure, newcomers at some point needed to seize control and define the community in terms of their interests and concerns. How this tension, that of stabil-

ity versus change, played out in CoT is illuminated in this section in which we focus more directly on the CoT developmental cycle.

Each of the three seminars supported a unique heterogeneous community with members spaced along a continuum ranging from newcomers (1st semester students) to experienced old-timers (2nd year students with a mentor teacher). Students also varied in their ages and life experiences; some were 18 year-old freshmen; others were parents who were starting another career. The students' majors were also varied: there were math teachers and art teachers and music, biology and social studies majors; all subject areas were covered, lending immense diversity to the seminar. These students who were preparing to teach different subjects shared their individual challenges and worked together on seminar projects, where they learned how to create joint units and bring interdisciplinary lessons to their classrooms. The time students take to complete the CoT requirements and the process they undergo varied widely, and were dependent on prior experience, personal motivation, and their ability to find a mentor teacher quickly. Students who entered with an experienced background or had prior teaching experience often took just over a year, while others needed 3 or more. As such, there was no "typical" student in CoT. However, a rough chronology, although not representative of any one student, might look like that displayed in Table 3.

New students enrolled in the seminars every semester and it was the current students' responsibility to recruit, select, and orient new members to the community. Perennial open houses were hosted by current CoT students and the university to which all SoE students were invited. The open-house meetings usually consisted of the facilitators and any volunteer CoT students who could attend and share their experiences. SoE students who were interested in joining CoT

TABLE 3
Typical CoT Chronology as Stated in Program Overview Packet

Year	*Activities*
Freshman	Attend CoT information meetings and visit seminar sessions. Apply for admittance to CoT. Interview with CoT students and faculty.
Sophomore	Enroll in the seminar. Initiate school visitations and selection of a mentor teacher.
Junior	Enroll in the seminar. Continue working on portfolio of the 30 Program Expectations. Continue working with a school and a mentor teacher. Enroll in content-area special methods course(s).
Senior	Enroll in the seminar. Complete and refine portfolio of 30 Program Expectations. Enroll in the reading methods course. Do student teaching. Begin the job search.

then applied to the program. Interview teams consisting of at least two students from each seminar and one facilitator were formed. CoT students were most concerned about an applicant's reasons for wishing to join and whether the applicant seemed committed and had thought seriously about teaching as a career. We witnessed no occasions where applicants were denied. The newly accepted student was then invited to visit all three seminars and select which seminar she wished to join. In this way, the students played a major roll in the important process of initiating newcomers into the community, and thus, the process by which the community reproduced itself.

Generally, old-timers with mentors, particularly those who were assisting their mentor in teaching, were considered central members of the community, and they shared their teaching experiences with the group through seminar discussions, while newcomers held a more peripheral role. Newcomers held the prospect of becoming full participants as they gradually assembled the practices, beliefs, and values of CoT into a coherent understanding regarding what was expected of them. Newcomers to CoT were not sequestered nor removed from creating knowledge nor from influencing what the community considered important to explore and study. On the contrary, CoT provided means for all members to participate in roles, to whatever extent possible, through course readings, participation in class discussions, sharing of personal and professional experiences through seminar discussions, course projects, searching for and choosing a mentor, and suggesting possible evidence that may satisfy portfolio expectations. Even beginning students could lead a seminar session, although some chose to do it collaboratively with a senior member.

Because newcomers frequently lacked the teaching experiences that most old-timers accrued through working with their mentor, they relied on their personal experiences in high school, outside of school, as university students, and on the course readings as their primary means to contribute to class discussions. Through these discussions, newcomers began to determine their individual interests, the community's interests, and to take on different roles (initiator of discussions, devil's advocate) and eventually make a place for themselves in the group. Old-timers pushed newcomers to participate so they could eventually become full participants and fill the roles currently held by the old-timers. As one old-timer, Brad, wrote in an e-mail,

> I really feel good about the group thus far. There are some very different dynamics now that the five new hands of last year are now five of the seven "old" hands. We are ready to take on the responsibility [of leading the seminar]. I am excited, but I really want to make sure that we encourage the newer people to speak from the get-go. It is evident that some of them feel a little lost. I found the best way for me to acclimate was by getting right into it: by taking part in all the conversations that I had an opinion on.

This statement exemplifies how old-timers' roles shifted as newcomers entered CoT. Newcomers' lack of experience placed new demands on the old-timers and required them to consider themselves mentors to the newcomers, assisting their enculturation into the community. As one facilitator shared in an interview, "Collegiality is seldom a topic of discussion in the seminars, but the process of the seminar is so powerful that we develop teachers who will be strong colleagues."

Despite encouragement from the old-timers, the seminar facilitator, and their peers, some members remained hesitant to risk sharing their opinions and experiences and remained on the fringe of community. Many newcomers talked about feeling intimidated. They could not envision ever being as "together" as the old-timers. However, in the seminar discussions, members could share as little or as much as they wished concerning their personal or professional experiences, their fears, or simply what has been happening in their life. These structures provided not only a "safe" conduit in which new members could begin to participate, but also improved their understanding about what old-timers respect, admire, fear, and consider good teaching. This commitment to bringing newcomers into the community was not restricted to in-class activities but extended beyond the boundaries of the seminars as old-timers set up orientation activities, and other social functions whose intent was to welcome newcomers into CoT.

Newcomers, at times, felt their contribution to the seminar was limited by not having a teacher mentor:

> Laura: I felt like, for much of this semester, that I couldn't contribute because I didn't have a mentor. I was looking, but there were so many people here that had a mentor I didn't feel like I could contribute anything to the discussion. So I guess I was intimidated.
>
> Reese: I felt the same as well. I don't have a mentor either so at times I thought my contributions would not be respected.

Old-timers, along with the facilitators, supported newcomers in locating a mentor teacher by providing the names of teachers that support CoT, with tips and suggestions based on their experience of searching for a mentor, and through sharing stories regarding the mentor-finding process. As more and more members acquired mentors, the dynamics of the seminar, as well as the roles and identities of its members changed. In a very real way, the seminar, like the individual, had a learning trajectory. However, unlike courses that start anew each semester, the seminar and the community also have a history so that the community as a whole was never a total "newcomer" just because one or two new members joined. Over time, new members viewed themselves as resources not only for their personal experiences, but for their professional experiences as burgeoning teachers.

Similar to newcomers who traversed an inbound trajectory into CoT moving toward centrality, old-timers who were involved in student teaching traversed an

outbound trajectory moving away from centrality to peripherality. After a mentored old-timer had completed 10 Expectations, he is, according to one of the technical rules governing CoT, ready to student teach. However, doing student teaching meant, in many cases, that the student was less able to attend the CoT seminar and other community activities for most of the term. Thus, they did not have as much access to course discussions and became less central to the community. Tess, a student teacher, expressed this change:

> I really miss the discussions. They were quite helpful, and it feels so odd coming back after teaching. I don't feel like I can contribute that much because I don't know where people are coming from, or what they are doing.

Old-timers helped newcomers move along in completing their Program Expectations. Veteran members were critical agents in communicating to newcomers the possibility of completing this potentially daunting task. Veterans threw portfolio parties where two or three students would work together and with newcomers, deciding where to locate evidence or sharing ideas for creating projects in schools that would yield good evidence for several expectations simultaneously. Older students modeled for younger students how to think about the world as "evidence," presenting their portfolios to the seminar. The role of the old-timers in this process was illustrated in the comment below:

> What I want to be for the semester is an Expectation resource. I have done about 20 of the 30 and have information on the others. I have spent a lot of time on it. I am excited to student teach. I don't know how much I will be able to show up. I want you to e-mail me.

The developmental cycle that characterized the seminar could be thought of as one of "rolling cohorts," with old-timers leaving to teach and new members joining in. Because of the democratic process governing CoT, with each new set of students the seminar dynamics and personality change and evolve. However, as stated above, the CoT history was an important part of the present and of the community identity. In one student's words,

> Even though a lot of you have just joined it now, you are still a part of the people that were in this 5 years ago. I felt that we lost sight of what happened before us, and as the semester went on, the more and more I felt that it was out of sight, and I kept looking back over my shoulder wanting to bring that into the class. In reality we have a new group and there are different dynamics. I guess I should have been a little more accepting of that.

This history, along with the strong sense of community, was also apparent in the e-mail below.

> We have seen old members leave and new members arrive and it has always been thought-provoking. Thank you for making my experiences meaningful in the group. We said things in there that we don't get the chance to say often enough outside of the room. I think we became a sort of support group for one another—a place to philosophize and mold our minds. I will not think back on CoT as being a class, or even credit related, but as a place where I converted my thoughts into action and reality.

In addition, alumni would occasionally attend CoT seminars to stay connected, and to share their experience, strength, and hope with the community—this role of old-timers has been described as essential in other communities (Lave & Wenger, 1991).

Through their participation in CoT, students moved from novice teachers to student teachers, logging hundreds of hours working in classrooms, teaching, participating in seminars, and reflecting on their experiences in portfolios. Old-timers serve as important role models for newcomers, as they observed old-timers in seminars, doing their portfolio, or working in the field. Furthermore, old-timers helped mold the seminar, and in the process, made an impact on newcomers' learning experiences. Thus, CoT students were exposed to sociohistorical structures, role models, and community norms that constrained their activity. Although other learning environments have constraints such as accountability structures or scaffolding that support their activity, the multi-generational nature of the CoT allowed for unique learning opportunities for newcomers and old-timers alike. Even though this multigenerational nature of the community produced tensions between old-timers and newcomers, these tensions, on the whole, were regarded as healthy by the community. For example, in one student's e-mail to us after reading an initial draft of this article,

> CoTers may often leave weekly seminars feeling frustrated. More times than not, this does not lead to explicit questions of community development. This, though, is a definite plus to the program, and an unspoken key to making CoTers think, argue, and develop—individually as well as parts of a whole. Given the make-up of each seminar, and the social environment that develops due to the logistics of the program, members feel that such aggravations are likely, and that as community members, progression through such tensions are likely, grudges are rare, and development is—in my opinion—the unspoken norm.

As suggested in the above comment, because of the tensions characterizing CoT, change and innovation (and we argue learning) were part of the continuous

flow of community life. These struggles allowed for opportunities to reflect on what the seminar's identity was, what practices were central to participation in the seminar, and what the purpose of the seminar was. These experiences suggest that tensions are not something to be avoided, but rather, are an important and sustaining force in community life.

CONCLUSIONS, DISCUSSIONS, AND LESSONS LEARNED

The CoT program took steps toward establishing a program for preparing preservice teachers that was heavily field-based, based on democratic ideals, supported a strong sense of community, and emphasized applied performance and assessment as a central part of the learning process. The process of learning as a member of CoT occurred through the reflexive relations between secondary school participation and university seminar participation, as well as through the active and reflective practices requisite for building one's portfolio. During our observations, a subset of which were discussed earlier, we saw many examples in which theory and practice dialectally informed one another, creating a dynamic seminar in which participants shared their personal experiences, and engaged in educational discourse in a manner that pushed their thinking and informed their practice. On occasion, we also observed instances in which technical requirements, such as the portfolio, prompted seminar discussions that led to new class interventions. For example, when Janet asked under which Expectation she should file her practice of telling students not to use the word "gay," this resulted in an instance in which her idiosyncratic comment stimulated discussion that led to the formation of an actual lesson plan. This ability for conversation to easily flow from informal comments to explicit practices and, eventually, even to tacit understandings is an important process that can occur seamlessly when one learns as part of a community of practice (Lave & Wenger, 1991). This interaction of experience, reflection, and the generation of meaning created a fertile breeding ground for learning content, as well as for transforming members' identities as teachers.

Consistent with the work of Engeström (1987, 1993, 1999) and other Activity Theorists, we have chosen to characterize the CoT through the core tensions (or what Wenger referred to as dualities) that we observed as driving CoT activity. At first glance, these tensions may seem like obstacles to be overcome or problems to be solved. However, we argue that the dynamic interactions that characterize CoT activity were stimulated in part by the facilitators' commitment to *embrace*, as opposed to remove, emergent tensions. Indeed, these tensions drove some of the most dynamic and informative interactions within the community, which frequently led to learning. For example, when one seminar discussed the Freire book, there were lively conversations about the relations between theory

versus practice and how "ideas" can have an impact on real-world activity or, reciprocally, how real-world activity can impact ideas. Or when the community was arguing about how much structure they should have in their seminars (i.e., is the seminar the context for or the content of learning), students stayed late and continued conversations over e-mail. When one student expressed his frustration with the fact that the portfolios were simply red tape and 1 month later the same student expressed how reflecting on his practice as he completed the portfolio pushed his own understanding of what it means to be a good teacher, or when old timers fought change while at the same time trying to honor the needs and perspectives of new members. We observed numerous and continual system tensions, and we contend that these tensions were central to the emergent CoT dynamics through which learning occurred.

This study lends support for using tensions as a means of examining community dynamics and of understanding the struggles in supporting communities intentionally designed to support learning. Building off the work of Engeström (1987) and Wenger (1998), we have treated tensions as conflicting needs that drive a system. This is not to suggest that tensions are polar opposites; rather, tensions are paired needs (dualities) that are dialectically co-constitutive. For example, the portfolio served as both a reflective device for supporting learning as well as an accountability device. In some sense, when the portfolio was an accountability device it was also performing as an indicator that little learning had taken place and, reciprocally, when the portfolio successfully documented and supported learning it was a good assessment device. Thus, the tensions we described are at times opposites and at times complementary. The categories around which CoT tensions formed (discovery, structure, content, context, theory, practice, accountability, reflection, stability, change) do not exist along some linear continuum, but, instead, exist in continual relations. In this way, the elements of each tension are *dialectical* with the challenge being to understand their interplay.

This dialectical nature of tensions is what Wenger (1998) terms a duality. Wenger described how the dimensions of a duality are in constant interaction. So, as in the case with the portfolio, the need for an accountability device constantly interacts with its role as an outcome of learning. Thus, both roles of the portfolio are constantly present and, in general, understanding the constant interplay between these two functions is much more fruitful than understanding either in isolation. As Wenger argued, increasing the need for one side of a duality, such as the need for accountability, typically increases the other side, such as the need to function as an outgrowth of learning; thus, negotiating the tensions in a community does not mean simply choosing to emphasize one side of a dialect or diminish the need for another. Rather, these tensions are inherent to communities and activity systems, and provide fruitful means for understanding how needs manifest themselves in community life, and how communities might evolve to meet these needs. In this way, communicating tensions allows educators to characterize the salient elements of their educa-

tional interventions and discuss design challenges facing educators designing for communities in the service of learning (Barab et al., in press).

Although it is not our intention to suggest that the identified tensions occur in all communities of practice or even to provide "rules" that can be applied in designing or running communities of practice intentionally designed to support learning. However, by reflecting on the identified tensions and how the seminar facilitators embraced these tensions we hope to illuminate for the reader those experience-near happenings that have experience-distant significance (Geertz, 1976). Therefore, in closing, we will reflect on the data in terms of three issues that may have relevance to educators interested in facilitating communities of practice intentionally designed to support learning. First, we discuss what we mean by a community of practice, reflecting on the process through which the community evolved. Second, we discuss the interrelations of meaning, practice, experience, identity, and community. Third, we discuss the role of the instructor in facilitating this process.

The Evolution of a Community of Practice in the Service of Learning

Central to our thinking is the commitment that communities are complex systems, comprised of multiple dynamics that can be usefully characterized as illuminative dualities. We believe that member practices and the evolution of the community was fueled by system dualities. It was the interplay among these dualities that allowed the system to continually evolve. Program facilitators did not attempt to minimize these tensions but were willing to be swept up in the sea of change, supporting members individually and as a cohort in navigating the ebbs and flows involved in learning to be supportive colleagues and good teachers. As Wenger (1998) and Engeström (1987) both argued, it is the inherent tension and complementarity within and among system tensions that provide the system with its richness and dynamism. In other words, it is these tensions that drive innovation and, in the context of a community designed to support learning, that drive learning.

By design, the CoT program is committed to democratic ideals and to each student's right and responsibility to create a good seminar. A tension that arose and drove much of seminar activity was how to find a balance between members' freedom and responsibility to direct the seminar and the community's (as well as the facilitators') need to ensure a healthy community life. Managing this tension was both the context of the seminar and, in the case of teachers needing to learn how to build a rich classroom culture, the content to be learned. CoT clearly put this responsibility on the member, limiting a priori and top-down, instructor-initiated expectations. By minimizing the technical structures and not "over-designing," the program allows multiple avenues for student ownership

and community to develop. One exciting feature of our findings was that it *did* develop. On many occasions, students embraced ownership, developed deep friendships, attended community governance meetings, recruited new members, and took responsibility for the changes that they wanted in their community from a designer's perspective.

Each new set of members change the dynamics of the seminar while at the same time inheriting its history. Because each CoT seminar has a common history and culture, students learn through their participation in the community, and the community structures themselves foster and constrain students' development. Specifically, this continuity of the seminar provides a structure for student participation whereby through becoming an old-timer in the community, students participate in practices that are central to their formation as teachers (i.e., creating portfolios, giving advice on finding a mentor, recruiting new members, leading seminars).

Having a history that spans more than one semester means that there is structure(s) for new students to step into and appropriate (Rogoff, 1990). However, if the seminar is to truly become "theirs," at some point, new members will need to seize control of the seminar, and the old-timers will need to let loose the current identity of the seminar and embrace the changes that the new seminar members bring with them. At times, this was difficult for old-timers and for seminar facilitators, but for CoT to continually grow it was quite necessary. One could argue that the power of CoT was that it allowed itself to be continually remade, contextualized to the needs and interests of its members each semester. In a very real way, it is not the created structures that are important, but the crux of learning is actualized through the process of creation itself. However, in most teacher preparation programs students are not able to participate in this design process—instead inheriting stable structures to be appropriated rather than created anew.

From a design perspective, context, in this case the community and the activities of its members, cannot be handed to students wholecloth. Instead, it is continually changing and develops through dynamic activity (participation) as part of a system. It is participating in these dynamics that allows students to move from "agents to be changed" to "change agents." This perspective implies that learning is intertwined with uncertainty and change rather than certainty and satisfaction with the status quo, and that learning is nurtured through the posing of teaching and learning problems and working to determine how to solve them. However, in many teacher education programs, situations in which questioning and challenging of the current educational system are difficult to discuss because students are in fact satisfied with their position as an insider (or noncritical outsider) to the system (Grossman, 1991). The design and implementation challenge is to have both a history so that newcomers have structure, while at the same time have the opportunity to recreate the system.

Interrelations of Meaning, Practice, Experience, Identity, and Community

This account of CoT shows how learning within this community was a complex process, one in which meaning, identity, community, and practice all overlapped, mutually constituting and reciprocally defining one another. At one level, CoT has managed to create a "community of practice," and drew on connections with the communities already existing in schools to support members in their learning trajectory. Students learned through interweaving personal experience and theoretical understandings, sharing ideas within the community, and relating them to their teaching practice. The previous statement made by one former member illustrates this interrelationship powerfully: "I underwent this complete voyage, and transformation, not just about classroom management, but about philosophy and sociology, about how I view the world, and how I expect to approach the world." In other words, students are not merely learning facts about teaching, or even learning to apply skills; they are undergoing a process of becoming, whereby they find themselves changed through their belonging to CoT and, through the democratic process, changing the community. In CoT and, we argue, in education more generally, the focus should be on educating "whole persons," a goal not necessarily present when one focuses on simply getting content into the head of the learner.

By interweaving theory and practice, CoT was able to actualize those aspects of the collaborative resonance model that allow new teachers to transcend traditional practices (Cochran-Smith, 1991). Discussions ranged from pedagogy, to the nature and purpose of the seminar, to human rights. Furthermore, it is through this type of discourse that the community members collaboratively analyze and interpret their teaching experiences. It is this type of discourse that helps make explicit and accessible the day to day events and practices of teaching that occurs in the classroom. Learners challenged each other, supported one another, and solicited help from one another in the process of generating meaning. They also challenged theory, challenged existing practice, and challenged themselves. Intuitively, members recognized lopsided sessions, those weighted down by only discussing theory or practice, to be impoverished and actively sought to create structures, such as mandatory time for students to discuss field experiences, to prevent these from reoccurring. It is in building relations among theory and practice that educators can support students in enacting and testing their ideas, supporting what Whitehead (1929) referred to as robust understandings, in contrast to inert knowledge, because of their experience-near meanings and their experience-distant relevance.

In CoT, the building of portfolios as the primary accountability structure provided a rich opportunity for students to reflect on practice. Portfolio-based assessment, in addition to validating practice and not some later test score, provides a powerful mechanism for supporting student reflection on practice. Reflecting on the experience provides the opportunity to correct misconceptions

and fill in where understanding was inadequate. The reflective process—an active, rigorous, and analytic process—is essential to ongoing professional development (Clift et al., 1990; Schön, 1987). In spite of the value of the portfolio, the process by which students completed their portfolios was often less than ideal. In many instances, students were ready to begin student teaching, were in the act of student teaching, or were even graduating, without having done large portions of their portfolio, and complaining that the portfolio was simply "another hoop to jump through" so they could obtain their license. Instead of it being a natural outgrowth of documenting their practice, it became a requirement—an end in itself and not an opportunity to critically reflect on their teaching and their development as a teacher.

In addition, students did not always make connections to course readings and other theory about what constitutes best practice. This suggests that making these types of connections may need to become an essential component of student portfolios. Although the program facilitators were careful not to steal ownership of portfolio content from the students, pushing students to reflect more explicitly on the relations of practice and theory should probably become an implicit if not explicit element of completing a particular Program Expectation. A final aspect of the portfolios is that students frequently viewed them as more than assignments, with one student stating that portfolio was "the greatest accomplishment of my life." Because each student had the freedom to select what counted as evidence, the portfolios were unique to the personality of the individual. In one student words, "the portfolio documents who I am as a teacher and as a person." In our view, the content of the portfolio was clearly wrapped up in each student's identity as a teacher. Sharing their portfolios with each other helped build community, as oldtimers mentored new members by sharing their own portfolios and helping newcomers decide what counts as evidence.

In general, community members recognized that meaningful learning brings together theory and practice, doing and reflection, the individual and community, in a manner that transforms all components. In the context of CoT, it is difficult to speak of meaning without speaking of practice, to speak of identity development without community development, or to speak of community involvement without speaking of learning. In our view, what makes CoT so valuable as a teacher education program is that students used seminar-selected readings or portfolio expectations to challenge existing practices, and used their current practices to contextualize and challenge course readings—that is, theory and practice reciprocally contextualized each other. This is particularly significant when considering recent propositions by a number of teacher educators that teachers be afforded the opportunity to develop their common histories through the telling of stories, through discourse, although sharing of their personal and professional experiences (Cochran-Smith, 1999; Grossman, 1991).

Facilitating Communities Intentionally Designed to Support Learning

A tension that emerged in all three seminars was how to increase participation yet not undermine ownership. This was most clearly evident in the facilitator's comment,

> You need to provide your own direction, and I don't help you a lot when I just tell you here is the way to do it. There is a struggle in invention, I think. I can't protect you from that.

In an interview with one of the facilitators, he stated that a turning point in his own and in the community's development occurred when a student said to him during an end-of-the-semester evaluation, "this goes better when you talk less." The role of the facilitator in this environment is not to teach organized content, or even to minimize student tensions; rather, the goal is to work with students to establish a collaboratively owned system through which both the individual members and the community can learn and grow (Barab et al., 1999). It is the role of the facilitator to trust in the system, pushing and pulling but not removing student and community tensions. In other words, the key is not to minimize individual and community disturbances, but to balance these tensions, allowing for students to experience dissonance and exert ownership over their own learning. However, the facilitator clearly has responsibility.

Although CoT is based on a democratic governance, the power relations among the instructor of record and the students are not symmetrical. As political agents responsible for granting licensure, teacher educators have overlapping membership in multiple communities. Because of his or her overlapping relations within the broader culture, the facilitator must also act as gatekeeper, recognizing pitfalls and providing corrective feedback so as to aid the learner in the enculturation process (Barab et al., 1999). In helping to develop reflective teachers, for example, the facilitators viewed it as their job to share their expertise on a broad range of issues, including educational reform, the culture of schools, and effective teaching practice. In this capacity, it was their responsibility to use current educational theory and research to support students in engaging in transformative practice whereby they do not simply reify traditional educational practice. The facilitator is not simply "schooling" the learner in terms of adopting cultural norms; rather the facilitator, through guided facilitation (Rogoff, 1990), aids the learner in engaging in practices and using available resources for the learner's own self-forming.

In playing the "gatekeeper" role, the CoT instructor felt ethically and professionally obligated to make serious interventions in a student's development. This kind of gatekeeping function is often implicit in discussions of communities (Lave & Wenger, 1991), but perhaps not well understood in terms of communities of

practice whose primary purpose is to foster learning. In CoT, the instructors attempted to remove this gatekeeper responsibility from their own shoulders and integrate it into the community's participant structures, by encouraging the community to adopt rules that would constrain activity so that meaningful participation in the CoT and sound teaching practice would be supported (e.g., the 1–10–20 rule or the reused expectations discussed earlier). By contextualizing this responsibility across a community with more- and less-experienced teachers, CoT holds accountable community norms and distributed expertise rather than assigning it to didactic caretakers where it too often takes ownership and meaning from the learner.

It is our contention that the "loose" constraints coupled with the principle of democratic governance afforded the opportunity for tensions to emerge and for students to evolve (and own) structures. These evolutions frequently began with an informal occurrence (a student expressing a dissatisfaction with a particular Expectation) and then, if other members agreed, became a formally accepted norm, and then, if voted in at community governance, might result in a new technical structure (e.g., the revision of the Program Expectations). Through participation in this process, students were provided an opportunity to participate in the making of classroom rules, as well as a much greater role in shaping the classroom culture than in most classes.

This case suggests that in facilitating learning within communities of practice, facilitators might observe the system dynamics looking for sources of tension and then manage the processes by which the system evolves. In some instances, this might mean instituting formal rules that constrain activity. More productively, the facilitator can also bring this concern to the community itself, and allow the community members to deal with the tensions. In the instance of preservice teachers, this process is especially useful as the content of the discussion; how to facilitate meaningful learning becomes both the content of and the context for discussion. This notion of facilitating the coming together of preservice teachers who have different perspectives and levels of classroom experience with the goal of developing relationships in which all participants struggle with and construct notions of what it means to teach as well as transform current practices is consistent with current calls by teacher educators (Cochran-Smith & Lytle, 1999a,b; Putnam & Borko, 2000; Stein et al., 1998; Thomas et al., 1996; Wineburg & Grossman, 1998).

EDUCATIONAL IMPLICATIONS

Lave focused much attention on the concept of communities of practice for supporting learning; however, she did this primarily through an anthropological perspective, with an examination of practices in everyday society. With respect to fostering the development of contexts for learning in schools, we are just beginning to understand what constitutes and what is the educational potential of community. If

we are going to move from an acquisition metaphor to a participation metaphor, then we need to provide more grounded accounts of what these latter learning environments might look like in practice. CoT provides just such a participatory model, and through illuminating the core tensions in practice, we can begin to develop a grounded account of its "look" and "feel" as a model for building communities designed to support learning. The tensions that we identified in CoT make a case that designing communities for learning is a complex, ongoing process that occurs as a dynamic of localized needs and constraints. We believe that communicating these tensions to the reader allows the reader to gain a rich understanding of the particularities of the case, as well as opportunities for drawing lessons relevant for other attempts to design communities of practice for learning.

CoT not only provided a rich "context" for situating "content;" it reciprocally defined and constituted both the content and the context. CoT members were not simply learning about teaching practice (content) as they were situated within a community (context), but instead were learning about teaching practice through participation as a community member. All too often as educators, we treat context as something we arrange to situate the content, or as something that students bring with them to the learning situation. In contrast, CoT members "owned" the content and context, transforming context from a black-boxed structure to an emergent activity that was problematized and open to public discussion (Latour, 1987). In this manner, CoT practices what it preaches.

For preservice teachers who will eventually be designing their own classroom environment, we need to provide them the opportunity to create context. It is essential that teacher education programs "practice what they preach," and if we advocate more personalized and more democratic learning environments in schools, then we need to provide opportunities for preservice teachers to experience them. This case suggests that opportunities for learners to create their own context may be an important part of the learning process, especially for preservice teachers. As learning scientists, perhaps we ought to look more critically at what opportunities exist for learners to create their own context in learning communities. What are the trajectories by which learners can change the rules and culture of a system? When considering learning as participation in a community, educators might also ask whose context it is and how is it negotiated. These questions elevate issues of power and democratic organization of learning systems from one of purely political or ethical considerations, to ones of a psychological and pedagogical nature.

This research advances our thinking on designed communities of practice, the advantages of learning within them, and critical issues that need to be accounted for if we are going to support their emergence. This case further suggests that when describing learning communities, learning scientists may need to not only describe the rules, structures, and participants in a community, but the processes by which these interact. Community facilitators can use broad guidelines of facilitation and community-building to foster communities for learning (Kim, 2000; Peck, 1988).

However, the process by which the facilitator negotiates meaning within a community is a complex one that draws on relationships among facilitators and students' personalities, beliefs, histories, emotions, and abilities that is difficult, if not impossible, to reduce to a set of general prescriptions or a reductive science that other practitioners or researchers can employ across contexts (Cuban, 1986).

In this article, we argued that a central challenge for educators who are designing and facilitating communities of practice in the service of learning is to recognize the system tensions, identify how they impact community life, balance their influence, minimize potentially damaging conflicts, and allow the system to organically evolve as the community as a whole learns to balance the multiple needs of its members. Here, we provided an account of how these tensions developed and unfolded within one community, which, as an illuminative case study, provides fruitful grounds for other community designers to build their own petite generalizations; that is, use this case to more readily identify patterns existing in their own communities and navigate the challenges they face more intelligently (Stake, 1985).

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APPENDIX

Program Expectations

Completion of the program is not accomplished by accumulating course credits. Rather, students demonstrate, whenever possible, their actual performance as teachers. In accordance with the State's 10 principles of performance, which are correlates of the national INTASC standards, we expect our graduates to demonstrate the following abilities:

1. The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.
   - 1.1. Subject Matter. Our graduates will be able to demonstrate their knowledge of and commitment to subject matter through their teaching.
   - 1.2. Teacher as Learner. Our graduates will be able to demonstrate that they, themselves, are effective models of the learning process.
   - 1.3. Learning Materials. Our graduates will be able to demonstrate that they can critically review learning materials.
   - 1.4. Teaching Reading and Writing. Our graduates will be able to demonstrate that they can effectively incorporate reading, writing, and thinking activities into their day-to-day instruction.

2. The teacher understands how children learn and develop, and can provide learning opportunities that support their intellectual, social, and personal development.
   - 2.1. Individual Development. Our graduates will be able to demonstrate that they understand the physical, cognitive, psychological, and social–emotional dimensions of their students' development.
   - 2.2. Self-Directed Learners. Our graduates will be able to demonstrate that they can help their students to better manage their own learning.

3. The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
   - 3.1. Using School Specialists. Our graduates will be able to demonstrate that they are sensitive to their own strengths and limitations and that they can respond to students' specific needs by seeking the help of others when appropriate.

3.2. Multicultural Understanding. Our graduates will be able to demonstrate that they can function effectively in multicultural settings.
3.3. Diverse Learners. Our graduates will be able to demonstrate that they can function effectively with students with diverse abilities or special needs or both.

4. The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

4.1. Teaching for Problem-Solving. Our graduates will be able to demonstrate that they can develop their students' critical thinking, decision-making, and inquiry abilities.
4.2. Variety in Instruction. Our graduates will be able to demonstrate that they can employ a variety of instructional approaches.
4.3. Technology. Our graduates will be able to demonstrate that they can use current technology, including computers, to enhance their teaching.

5. The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

5.1. Fostering a Sense of Community. Our graduates will be able to demonstrate that they can employ a variety of approaches to foster a sense of community within the groups of students with which they work.

6. The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

6.1. Verbal Communication. Our graduates will be able to demonstrate that they can write and speak effectively.
6.2. Learning from Others. Our graduates will be able to demonstrate that they can facilitate learning in a variety of group situations.
6.3. Empowering Students. Our graduates will be able to demonstrate that they can effectively empower their students to exercise their rights responsibly.

7. The teacher plans instruction based on knowledge of subject matter, students, the community, and curriculum goals.

7.1. Curriculum Development. Our graduates will be able to demonstrate that they can develop curricula appropriate for their students.

7.2. Community Resources. Our graduates will be able to demonstrate that they can effectively interact with community services and personnel to enhance their students' learning.
7.3. Forthrightness. Our graduates will be able to demonstrate that they can respond credibly and forthrightly to the questions that their students may have.
7.4. Personalizing Learning. Our graduates will be able to demonstrate that they can personalize the learning of their students by working with them and their parents to develop individually meaningful programs.

8. The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

8.1. Information About Students. Our graduates will be able to demonstrate that they can gather information systematically regarding their students' performance in school.
8.2. Evaluating Students' Learning. Our graduates will be able to demonstrate that they can employ a variety of assessment tools and strategies to evaluate their students' work.

9. The teacher is a reflective practitioner who continually evaluates the effects of choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

9.1. Expressing Convictions. Our graduates will be able to demonstrate that they can participate in salient debates on major social issues and also create a climate that encourages similar behavior in their students.
9.2. Human Rights. Our graduates will be able to demonstrate that they understand and appreciate universal human rights and are committed to taking action to improve these.
9.3. Professional Development. Our graduates will be able to demonstrate that they can assess their current professional effectiveness and identify means to increase that effectiveness.
9.4. Examining One's Practice. Our graduates will be able to demonstrate that they possess a propensity to ask questions about their teaching and their students' learning and can design means to answer those questions.
9.5. Initiating Change. Our graduates will be able to demonstrate that they can effectively engage in reform efforts at the school level.

10. The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

10.1. Families as Allies. Our graduates will be able to demonstrate that they can build sound relationships with parents and other family members to enlist them as allies in promoting the learning of their children.
10.2. Collaboration. Our graduates will be able to demonstrate that they can collaborate with colleagues in teaching situations.
10.3. Resolving Interpersonal Differences. Our graduates will be able to demonstrate that they can directly and constructively resolve interpersonal problems and conflicts with colleagues.