



School cultures as contexts for informal teacher learning

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ABSTRACT

This study profiles and compares international social contexts for teacher workplace informal learning from the teachers' perspectives. Set in elementary schools in the U.S. and Lithuania, the study illustrates how teachers make sense of and engage in professional learning within their historical, political and administrative contexts. A socio-cultural framework brings into view different opportunities for teacher informal learning. These evolve from comparing teacher interviews about their learning to ethnographic case studies of the school's cultures that include schools' missions, building structures, classroom environments, organizational arrangements, traditions, and professional relationships. The study illustrates key interrelated cultural qualities of schools that support and hinder informal learning; argues for the importance of acknowledging teacher informal learning as a method of career-long professional development, and suggests further research about how to build and sustain the school infrastructure necessary to maintain such development.

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To understand schools, we must understand them as teachers do, that is, we must attempt to construe how schools appear to the teachers who inhabit them.

(Rosenholtz, 1989, p. 3)

This study is predicated on the premise that in-service "teachers' professional development is critical to systematic educational reform and school improvement focused on enhancing learning outcomes for all children in public education" (Brendeson, 2000, p. 64). This proposition holds true for teachers throughout the world who are pressured to modify their practices in ever-changing political and policy climates. To meet these pressures, and if school improvement policies are to succeed, teachers require various school-based opportunities for learning to maintain professional growth. This research aims to contribute to the emerging scholarship on relationships between school environments and teachers' professional development by investigating how school cultures create opportunities for teacher informal

learning and how teachers identify themselves as learners as they make use of or reject these opportunities.

1. Understanding and framing the issue

Within schools teacher learning is often referred to as workplace learning. For analytical purposes, we distinguish formal, often called professional development, and informal professional learning in the workplace. Traditionally, formal, or prescribed professional development occurs when educational innovations are introduced to teachers through systems of workshops, presentations or projects. Conversely, informal learning occurs in interactions among teachers and their reflections upon their practice, sometimes planned and often happenstance.

We adopt this commonplace distinction between formal and informal, even though this binary is problematic in a number of ways (Billett, 2002). As a framework for professional learning, it oversimplifies dynamic interrelationships among the time, substance and location of professional growth. Nevertheless, in this early stage of defining the concept of teacher workplace learning and its related issues, this simple binary permits us to explore the cultural dimensions of the phenomenon we refer to as informal learning.

School culture as the site of this learning is our focus because social affiliations and sense-making norms have been shown to be a crucial factor for success of any innovation (Billett, 2006). School culture precedes and mediates government or individual initiatives

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(Acker, 1990), and has a profound impact upon how teachers value and apply prescribed as well as self-initiated changes (Fullan, 2001). A school culture that encourages and supports teacher learning through creating opportunities and providing a stimulating context for teacher change has been found to be essential in generating educational reform. To highlight relationships between learning and culture, this study comparatively investigates the cultures of schools in which teachers informally learn to improve their practice in the context of formal reform initiatives.

Education policy scholars hold that the most productive reform develops from within schools (e.g., Fullan, 2007; Fullan & Hargreaves, 2002). Additionally, socio-culturally informed research confirms that professional learning is not only cognitive, but also contextually situated and intrinsic to the contexts within which and with which the individual interacts. Consequently, deeper understanding is needed of the cultural, physical, social, historical, and personal aspects of professional knowledge within these contexts. Such knowledge-building calls for investigation of teacher learning from a socio-cultural perspective (Yinger & Hendricks-Lee, 1993), which this study takes, to describe the cultures of the schools in which teachers learn as a collective.

Research also indicates that teachers co-construct their understandings of innovations by informally collaborating and learning from each other and through reflection on their experience. In their professional performance, teachers draw on a variety of personal and professional experiences, on other explicit knowledge and on their own ideas (Buchmann, 1989; Richardson & Placier, 2001). Nevertheless, there is little research on how best to stimulate collaborative workplace learning to enhance teachers' propensities for learning informally (Knight, 2002b). Hence, this study's purpose was to better understand how informal teacher knowledge develops within a school culture by examining how teachers interact with others in their learning processes.

In the remainder of this article we provide our answers to the questions: How do teachers in different schools perceive themselves as learners? and, How do school cultures create opportunities for teachers' everyday informal professional development? First, within the broad array of definitions and meanings ascribed to the concept of culture in general and organizational culture in particular, we define the role that a school-appropriate cultural lens could play in conceptualizing informal workplace teacher learning. Next, we explain how, as part of a larger two-year ethnographic project (Jurasaitė-Harbisson, 2009), this study examined how teachers in three schools (a Midwestern school in the United States, a Russian and a Lithuanian school in Lithuania) define their institutional cultures and opportunities for professional development within them. Finally, after presenting our results, we suggest implications for further research that emerges from the analysis of teacher learning at their workplace through a cultural lens.

2. Theoretical framework

Research on teachers' formal in-service experiences has shown that their impact on teachers' practice is limited (e.g., Darling-Hammond, 2000, 2006; Goldenberg & Gallimore, 1991; Lieberman, 2000). At the same time, researchers argue that conditions within schools can have significant influence upon teacher development: "the most powerful forms of teacher development are fostered most directly and powerfully by conditions unlikely to be found outside the school" (Leithwood, Jantzi, & Steinbach, 1999, p. 150). In addition, MacGilchrist, Myers, and Reed (2004) call for schools to become intelligent organizations that synthesize different kinds of knowledge, experience and ideas to enhance teaching and learning. These findings call for a major re-appraisal of professional learning systems because they imply that "the quality of teachers' learning

comes from the quality of their departments and/or schools as learning organizations" (Knight, 2002a, p. 293). For this reason, research necessitates thorough examination of "conditions in schools that enable teachers to learn throughout their careers" (Eisner, 2000, p. 349).

Hodkinson, Biesta, and James (2008), and Kathryn Anderson-Levitt's (2002) perspectives on culture provide key dimensions of the conceptual framework for the study. Hodkinson et al. (2008) view culture as a social phenomenon—a practice—constructed through interactions and communications between the members and the operational contexts of an organization. Anderson-Levitt (2002) understands culture as an interactive web of meaning, whose parts are in continuous interaction with each other. This web includes tacit and explicit knowledge, values and attitudes, propositions and theories, knowledge-in-practice and embodied knowledge. Both constructs make school cultures visible in the webs of meanings explicit in utterances or implicit in conversational moves. These meanings, as they interweave in different ways and to different degrees in different schools capture and define how the cultures of the three schools create, reinforce, and reflect teachers' professional learning. Hodkinson, Biesta, and James's social practice view combined with Anderson-Levitt's web of meanings focused the investigation on how, through their social practices visible in what they say and do, teachers express, construct and transform the school cultures in which they learn.

Key to understanding teacher learning as a socio-cultural phenomenon is our assumption that their learning is constructed through and thus visible in discourse or the ways that people communicate. Discourses, or language in use in speech and writing, are forms of social action with their own social meanings (Gee, 2001). Teacher discourses create and sustain their learning as well as describe it. On the one hand, their discourses occur in macro-contexts, in organizations and institutions (like departments, schools and countries), and, on the other, they occur in micro-contexts at a particular time, in a particular place, with particular participants (like a department meeting or a conversation between teachers between classes). To observe and understand how teacher learning is constructed, sustained, or changed we need to observe teacher conversations as they learn, in the places they learn, and ask them to talk about their learning. To understand what we see and what they say requires interpreting their discourses in relation to various social and political contextual conditions. Through this lens, we can view the relationships between moment-to-moment occurrences and political and social conditions in departments, schools and countries. This view promises much broader and more practical answers to the question of why teachers learn as they do than conventional de-contextual monolithic perspectives. By seeing their learning as a reflection of conditions in social and political worlds teachers inhabit, we can offer contextualized and compatible recommendations for improvement to teachers, administrators and policy makers that will be more far-reaching and have greater staying power.

Interactional ethnography is a useful methodological approach when applying this socio-cultural lens (Green & Dixon, 2002; Rex, 2006). Created in and for educational research, "by viewing teaching and learning as inseparable and by studying them as interactional events" (Rex, 2006, p. 2), this approach enables a reconstruction of cultural contexts as they emerge from participants' interactions. That includes examination of the interactional nature of learning opportunities that construct and are constructed by the schools' cultural webs. Together with interactional ethnographers, we perceive such cultures as constantly co-constructing themselves through interactions between members of the community and its contexts. Through interactional ethnographic methods, it is possible to interpret relationships between teachers' learning and

their immediate work contexts from their social practices—observable in symbolic cultural artifacts, such as school routines, organization patterns and traditions—as well as teachers' values, beliefs and assumptions about them.

In this article, we focus on interactions and relationships that manifest teacher learning and their immediate context. In doing so, we first characterize schools' contexts by focusing on traditional elements of anthropological accounts such as *descriptions of community, buildings and classrooms, schools' philosophies, traditions, and the general school population*. These appear as brief ethnographic accounts of the three schools, woven together from the researcher's analyses and teachers' voices as they shared their views on informal professional learning in the interviews (Dyson & Genishi, 2005).

Within each depiction, in addition to the above mentioned traditional elements of school culture, we apply MacGilchrist, Mortimore, Stedman, and Beresford's (1995) framework highlighting interrelated dimensions of school culture: *Opportunities for learning*, which are provided by *professional relationships* and *organizational arrangements*. While the traditional anthropological categories describe the context, these three dimensions highlight interactional processes within each school.

To deepen analysis within each of MacGilchrist et al.'s three categories, we elaborated them by employing additional complementary constructs. Professional relationships are understood through the concept of “knowledge-creating schools” (D.H. Hargreaves, 1999; A. Hargreaves, 2003). We explored how the process of knowledge creation is reflected in teachers' professional relationships as they described them. Applying Hargreaves (1999) analytic categories of *tinkering, transfer, research of practice, and facilitation by middle managers* we looked for ways in which they reflected teachers' learning processes within their schools' organizational arrangements. Implicit “tinkering” (finding out what works by trial and error) by separate teachers in their classrooms transforms into explicit learning through enacted processes of social knowledge creation, such as, for example, when the school is involved in college teacher training programs. Other contexts for successful informal learning occur when teachers engage in research of practice in collaboration with researchers and when middle managers (lead teachers and vice principals) open lines for professional communication.

To examine organizational arrangements, we observed ways in which school principals set the overall *tone, pattern, and attitude* for teacher learning (Law, 1999), as well as organized and stimulated collaborative learning. By examining how school cultures constructed opportunities for professional learning and how teachers used these opportunities, we employed the concept of opportunities as “a socially signaled and recognized phenomenon that is context-, content-, time-, and participant-dependent” (Rex, 2006, p. 15). We analyzed knowledge creation by observing the range of interactional spaces, the cultural norms, and “the roles and relationships ... [among] actions, talk, and texts” (Rex, 2006, p. 17). In these ways, we made teachers' informal learning opportunities in school settings visible through systematic examination.

3. Methods

Data for this study came from a larger two-year ethnographically approached (Green, Dixon, & Zaharlick, 2003) research project, which explored teachers' informal professional learning as it occurred in the workplace in Lithuania and the United States (Jurasaitė-Harbison, 2009). The larger study hypothesized relationships between the nature of informal learning and what teachers learn in different educational cultures. It also explored how teachers construct and act upon professional identities as

learners to improve their practice. In this smaller study, we focus on the cultures of the schools in which those teachers learned. In particular, we examine how teachers view school cultures as contexts that provide opportunities for their informal learning and how they engage in professional growth within these contexts. We found instances of informal learning by examining written and verbal accounts of eleven teachers as they reflected upon their learning (Hymes, 1972; Knight & Murray, 1999) and by cross-culturally analyzing how these teachers perceive themselves as learners within schools.

4. Data collection and analysis

The data for the larger study included observations (Delamont, 2002) at the three schools (one elementary school in the United States Midwest and two elementary departments within a Russian and a Lithuanian secondary school in a large city in Lithuania). The first author conducted these observations at each school site which included field notes, video and photographs, interviewing teachers and administrators, and artifact collection such as schools' mission statements. National educational documents representing policies were also collected. We were guided in our collection and analysis by our pragmatic aim: to inform teacher educators and administrators about ways of helping teachers to become critical and reflective professionals who continuously improve their practice through formal and informal learning (Donmoyer, 2001).

By the time we began this study, we had already systematically explored the contextual data (including field notes, artifacts, interviews, and video records) using methods from case study analysis, discourse analysis, and statistical and ethnographic analyses. During the process, we constructed cases of each school from which we draw for this study. (Due to the limited space, we do not present each case in its entirety; instead we briefly excerpt relevant portions in the results section.) Complete cases could be obtained from the first author's publication (2009). In each case, we defined school culture both from the teachers' points of view, by emphasizing participants' interpretations of cultural elements, and from the researchers' perspective by synthesizing ethnographic data using an emic and derived etic perspectives accordingly (Berry, 1999; Rogoff, 2003). This combination of ethnographic richness and dual interpretive perspectives increased the likelihood that our cultural understandings of the learning communities would fairly represent those communities throughout the analysis, and thus strengthened our confidence in the trustworthiness of our representations.

Because the results of this study rely so heavily on the school case studies, we explain how each was constructed. The process involved examining cultural artifacts and symbols including rituals, ceremonies and sagas expressed in actions and objects, as well as in discourse practices. Through domain and taxonomic semantic analysis (Spradley, 1979, 1980), we represented common values, beliefs and assumptions that we interpreted and described as a distinct culture at a specific school.

For this target study, we foregrounded the interviews, which we interpreted in relation to these other data. In their interviews, teachers responded to questions about the school ecology. (e.g., What does the school mean to them? How, when and where do the teachers learn in their workplace? What does the school provide them for their learning?) We coded and analyzed their responses through our theoretical framework for institutional culture. Finally, when we regarded what teachers said in their interviews with what we knew about their school's culture from our case study, it was possible to distinguish between the institutional culture of a school and the cultural dispositions, values

and beliefs individual teachers embodied from cultures outside of the institution.

To triangulate our interpretations, we compared the results of our interview analyses with what school administrators said in their interviews and with semantic analyses of ethnographic artifacts such as the schools' mission statements. The first author also asked seven of the participating teachers in Lithuania for their views about our interpretations and talked with ten other non-participating teachers in U.S. schools.

Eleven teachers, whose names we have changed to protect their identities, were interviewed.² The excerpts that appear in the Results were taken from 78 h of semi-structured interviews. These excerpts contain key words and phrases, illustrative of the hundreds we wove into a narrative about each school's culture. Categorizing these words and phrases produced five dominant facets of school culture that teachers informed us provided opportunities for informal teacher learning:

- **School mission** that reflects philosophy and collective values of the school community;
- **Traditions** that extend contexts for informal learning;
- **Architectural features** of a school building that provide or fail to provide spaces for teacher informal learning, and physical environment of classrooms that represent both the administration's and the individual teachers' approaches to professional learning;
- **Organizational arrangement** that features different opportunities for teacher learning; and
- **Professional relationships** that provide or fail to provide opportunities to learn from each other.

5. Results

5.1. The schools

The teachers' descriptions of their learning within their three school cultures (Lithuanian, Russian in Lithuania, and suburban American) indicated important differences among these institutional cultures. These cultural differences afforded teachers dissimilar opportunities for informal learning and professional growth. Historic societal differences could account for the dissimilarities among the school cultures. The fairly new American Midwestern suburban school (in its second and third years) is located in one of the fastest growing communities in the nation. Farmland, once supporting a rural, blue-collar population, has been developed into white-collar bedroom community subdivisions. Parental expectations for a good school to prepare their children to go on to four-year universities are high. The Russian school in a big Lithuanian city, having had a long history as a privileged and highly regarded school, was in an uncertain situation at the time of the study. It was fighting for its survival as a school serving

Russian-speaking national minorities.³ The Lithuanian school, though implementing almost the same curriculum as the neighboring Russian school, was an elite school famous for its novel approaches to teaching, highly trained teachers and democratic relationships within the school community.

Though national, historical and socio-political trends could be ascribed as the obvious "causes" for differences in school cultures and their teachers' informal learning, the study tells a more complicated story that discounts broad generalizations about direct causal relationships between the two. The analyses illustrate that dissimilarities among the schools' socio-cultural statuses and their opportunities for informal professional learning can be accounted for by unique relationships among national, institutional and individual histories and social developments. Each school's institutional organization and social culture and the opportunities its teachers recognized for learning should be assessed in regard to the unique local developmental histories and current local socio-economic and socio-political conditions in which they operated.

5.2. School mission

The different approaches schools took in formulating and publicizing their missions seemed to send clear messages about their priorities and directions for development. The participating teachers referred explicitly and implicitly to their mission or purpose frequently. The socially safe business-like approach of the American and Lithuanian schools meant that they did not find it necessary to include a mission on their web pages. The American school reported student academic achievement results as if responding to current *No Child Left Behind* (NCLB) test-driven educational policies, implying they were in tune with current demands for improving student academic achievement. The Lithuanian school "translated" its mission into specific goals, which included both academic and social targets tied to the current needs of the society, sending a message to the community and parents about their close link to the needs of everyday life.

By contrast, the Russian school, by posting its mission on the web and replicating it in the main hallway, and by highlighting Lithuanian State holidays, seemed to claim its value and valid place in the Lithuanian educational community. The website also included photos of the teachers and legendary principals from the '50s, '60s and '70s, a reminder of the 'golden years' evoking sentiments for the time when the students' club "Overtone" encouraged expression of independent and creative thinking through writing poetry and songs and staging performances. Teacher, Nadia, a former student member of the club, remembered that she learned how to organize big events from the club's leader, her favorite teacher:

N: **We organized huge events** (...) and **did everything ourselves**⁴: scenery decorations, costumes, scenarios. Before the performance, we would stay up until two in the morning. The results were great! I was drawn to the school. (11/19/2005)

² This table represents workplaces of the participating teachers.

The American School in Midwest	The Lithuanian School	The Russian School in Lithuania
Bob	Daina	Ana
Debbie	Ramute	Marija
John	Sigute	Nadia
Kristi	Viktorija	

³ According to linguists and politicians of independent Lithuania, the Soviet bilingual (Russian and Lithuanian) policies damaged one of the oldest live languages (Lithuanian). As a defensive nationalistic reaction to Russian chauvinism—expressed, in this case, in the Soviet language policies—the Republic of Lithuania Law of the State Language (I-779, January 31, 1995) came into power. It states that to obtain or retain positions in public sphere, people whose native language is other than Lithuanian (the law is aimed at the Russian-speaking population), must pass a language exam to show linguistic proficiency at a certain level. For more information see: http://www.minelres.lv/NationalLegislation/Lithuania/Lithuania_Language_1995_English.htm.

⁴ Here and further on in bold, we highlight phrases that are key to the meaning of the excerpt.

However, this club that once made the school unique no longer existed to bring creativity and inspiration to the everyday life of the students. Rather, to compete with remaining schools that offered Russian as the language of instruction, the school focused on providing high academic quality and closely followed state requirements. National educational policies seemed to put this school in a defensive position. Concern for its steep decline in social status from one of the best schools in the city to an unnecessary institution with an uncertain future was evident in ways the school publicly presented itself.

In sum, the three schools' particular approaches to showcasing (or not) their mission statements corresponded to each country's different histories. The American socio-political condition, even with NCLB policy pressures, appears relatively stable when juxtaposed with the upheaval in Lithuania's political and social landscape and the resulting shift in social stature for the Russian population inside Lithuania. In the following sections, we argue that these differences in historic and cultural development appeared to be consistently but intricately related to the learning climate of these three organizations. To do so, we compare school traditions that reflect histories (national, institutional and individual) in cultural representations of customs and beliefs shared by school professional communities.

5.3. Traditions

The teachers indicated that school traditions played a special role in creating informal learning environments: they reflected the ways in which school communities shaped and re-shaped their shared beliefs and engaged in professional learning over time. Communalism, which was cultivated in Lithuania during the fifty years of the Soviet regime, reflected in ways teachers engaged in traditional events. Both the Lithuanian and the Russian schools cherished their old traditions (e.g., coffee time, the Teachers' Day celebration in the Lithuanian school and celebration of the state holidays in the Russian school). However, the Russian school's nostalgia for its former status did not offset current structures. Forced to fight for survival, the school focused on fulfilling state requirements by creating new all-school traditional events (e.g., celebrating the colors of the Lithuanian flag), which provided new contexts for teachers' interactions and learning. Meanwhile, Russian teachers reported being distracted, overworked and over-controlled, and did not embrace new or old team traditions (e.g., celebrations of birthdays) as opportunities for informal learning. Nevertheless, they were able to dedicate their time and, sometimes, extreme efforts to their work and their students. That seemed to be the reason that they were still teaching in spite of little administrative support, lack of appreciation and scarcity of equipment and supplies. In a meeting with the participating teachers, during which eager to share their ideas they often interrupted each other, Nadia told a story of how she was very sick and still came to the traditional event because her students took part in it:

N: **We are fanatics**—go and work even when being sick.

A: Yes, we put ourselves last so, that later...

N: We were getting ready for the graduation party. I [was so sick that I] **crawled up** to the third floor and prepared everything—set up the curtain, attached everything to it, but **everything inside me was busting**. When I got home, I went to the medical center. My doctor looked at me—'you should go to the hospital.' But I—'**No, I have the graduation party, I cannot go.**' (02/03/2005)

The Lithuanian teachers also seemed to display a communal approach in observing school traditions. They did not separate all-school traditions (e.g., end-of-the-school-year celebration) and

their team's social customs (e.g., coffee time)—the teachers recognized creative exchanges of ideas as opportunities for playfulness and good humor as they participated both in professional and in social events. The administration of the school continued to maintain the spirit that was introduced by the first principal. The current vice principal for elementary education recollected how the atmosphere of mutual respect, trust and collegiality was created:

VP: Apparently, **that came from the principal**, because he behaved that way himself. He allowed kids to visit with him, call him by his first name, and share their problems. **The teachers picked that up. And that transferred to children. And he also introduced a nice tradition** of morning coffee. Teachers in our school **are never late** to their classes because they need to come and discuss events of the day with their colleague over a cup of coffee. **Our teachers liked it very much.** And the teachers themselves tried to come up with some nice surprises, and the principal, and the administration also did their best—someone would draw a funny face and write a caption in the teachers' lounge; another time a bathroom scales would appear with a funny note. **Everyone would applaud and cheer!** (01/19/2006)

This atmosphere of collegiality seemed to permeate all the relationships at the time of the study. The participating teachers assumed responsibility for an important part of the school organization such as compiling reading tests, applying for international projects, putting together an exhibition of students' artwork.

Even though the Russian teachers' all-school traditions were imposed and the Lithuanian schools' were not, in both schools participating teachers indicated that events fostered their creativity and encouraged formal and informal interactions. Conversely, the American school, open only for a few years, was experimenting with different traditions that were mainly targeted at enhancing students' achievement (e.g., the Reading Month) and attending to the demands imposed by NCLB policies. Teachers, fairly new to each other, whose individual values and interests guided their engagement in school events, seemed to separate the social from the professional, possibly a professional culture was still in the early stages of developing. As the interviewer was familiar with the big celebrations at the end of the Lithuanian school year and how teachers worked together to generate creative ideas for each year's celebratory scenarios, she asked Kristi about the end-of-the-school-year traditions in her school. Kristi's reasoning for why their school's teachers acted as they did revealed different expectations:

Researcher: Any traditions for the end of the year?

K: **No.** Having lunch for teachers last year. The principal provided it. Baby showers for teachers (*two teachers had babies—E.J.-H.*). The last days are half-days, that is, Monday and Tuesday. **Everyone is anxious to get home.** And many people work hard, so they can **be done** by Tuesday afternoon, so they **don't have to come the rest of the week.**

Researcher: Is it the same from year to year?

K: **Pretty much the same.** They will not be painting, so it's just cleaning the counters and taking some things off the walls. Usually, we have a calendar of events for the next year, but this year is negotiation of the contract. So, I haven't scheduled anything yet. (06/06/05)

By pointing out that she ["everyone"] was in a hurry to leave the workplace as soon as possible, Kristi seemed to differentiate between her time on-the-job strictly as 'doing the job' and her time away from the building as time off from teaching. She was also convinced that everyone at this school related to their position the same way. Debbie made similar remarks, which indicated that she also did not consider social interactions as learning opportunities.

Neither did the interviewed teachers recognize social events as opportunities for their professional growth; they reported avoiding professional conversations during such events. Still, they looked forward to visiting other classrooms to observe what their colleagues were doing (e.g., during *Morning Minglers*). It seems that social traditions provided them with occasions to visit other classrooms, which were rarely possible otherwise, but not necessarily to talk with colleagues about what they saw.

These different ways participating teachers related to their schools' traditions (created, initiated, participated, avoided or withdrew) either constructed informal learning opportunities or discouraged them. In Lithuania, the teachers' strong orientation to maintaining and developing school traditions provided them with opportunities for collegial collaborative interactions. By contrast, the American teachers had yet to build a social professional community that moved them beyond individual views of learning opportunities. It seems that preparation for traditional school events created occasions for informal learning in all participating schools. However, such interactions occurred within strikingly different cultural sensibilities—stressful in the Russian school, appreciative and creative in the Lithuanian school, and relaxed and collegial in the American school.

While traditions in all three schools appeared to provide occasions for informal professional learning through social events, the teachers related differently to school traditions. They could have made use of them to learn with and from their colleagues or to build collaborative relationship. However, they did so only in the Lithuanian school, where the national and local ethos were aligned and had been for some time. In the American school, traditions had yet to develop, and in the Russian school the new traditions were greeted as an affront to the old ways. The Russian school demonstrates how constricted opportunities for informal learning become for even the most experienced, committed and resilient teachers in a societal and organizational environment that has deconstructed the social communities and cultural capital the school has previously enjoyed.

5.4. Physical environment

The buildings and classrooms were perceived and used differently by the teachers in each school, but, somewhat counter-intuitively, physical spaces did not appear to strongly influence teachers' learning. The Lithuanian and the Russian schools occupied old school buildings, which accommodated students from the first to the twelfth grades. In both schools, elementary classrooms were situated on one floor, allowing teachers to stop by their colleagues' classrooms and even have a cup of coffee together during recess (the Lithuanian school). On the contrary, in the newly built wing-shaped American elementary school, classrooms occupied two floors. According to the teachers' comments, this arrangement made it difficult to communicate with colleagues. For Kristi the newness of the school and the physical arrangement both related and contributed to social isolation:

K: We started doing *Morning Minglers* on Fridays, where teachers have breakfast **in their rooms** and have other teachers come. That's more of a **relationship building thing and a get-to-know-you thing** because we are a fairly new building. Last year, we were also busy moving our classrooms over here and getting to know people that actually you are next to that we did not branch out into the building very much. We **did not have too much social time** to get to know people **on other floors** and **other wings** in the building. So, this year we are working more on that. (03/10/05)

Friday Morning Minglers was an intentional effort to counteract the value expressed by the teachers of respecting classrooms as unique, personal spaces that did not encourage colleagues to visit each other informally.

Classroom spaces were differently valued as collegial spaces in the three schools. In the American school, teachers decorated their classrooms, expressing their personalities. They enjoyed full administrative support in providing them with necessary equipment and supplies. The teachers talked about their classrooms with pride, as being close to their ideal work spaces. They seemed to place value on creating spaces that reflected their unique identities. In contrast, common spaces in the school (e.g., hallways, offices, the teachers' lounge and reception) seemed to be insignificant for their education and learning. This stance reduced teachers' informal learning environments to their own and, possibly, their closest neighbors' classrooms, though a few teachers did interact with colleagues throughout the school to improve their practice.

The Russian school's participating teachers' classrooms also seemed to be important spaces for them, but for another reason—they were their 'shelters' from direct administrative supervision. They identified their schoolyard and the cafeteria as the only other places where they could interact, at least briefly, while supervising students during recess. Nadia, for example, mentioned that they "exchanged a couple of words" when they took students to the yard during the long break or saw colleagues in the cafeteria:

N: When we take kids **outside**, we can **exchange a couple of words** like, "What page are you on in Math?" On your own, you can fall behind. But in a bigger sense, **we don't have any time (...)** **Interaction is scarce**. Sometimes we make a little circle and **talk in the cafeteria**. Our department meetings are every three months. If there is anything urgent, we stay after school. (1/20/2005)

Apparently, the administration was not supportive of teachers' informal interactions and provided neither opportunities nor spaces for informal learning.

Dissimilarly, the Lithuanian school, even though it spanned multiple floors, did not seem to have strict borders between classrooms and other school areas—all spaces seemed to reflect students' and teachers' creativity and initiative. The teachers seemed to feel free and welcome to visit other classrooms, stop by and talk in the hallways or discuss new ideas in the workroom and the teachers' lounge.

The bustle in the building exuded life. The entrance hall, the staircases and the hallways were decorated with students' artwork and projects representing different events (e.g., field trips, sports competitions). On the third floor, one wall always hosted different art projects by elementary students. Decorating this wall seemed to encourage interactions between the teachers. Sigute, for example, commented on the way they collectively came up with ideas for these exhibits:

S: These exhibitions, for instance. Now, we have "Trees." **I would not even say whose idea it is: one word from one teacher, another from the other one**—and we have it. (05/16/2005)

The displays and decorated spaces in the school seemed to say, "It belongs to you." Students, parents and teachers felt at home there. In the interviews, the teachers explicitly talked about school being their home, as did Daina:

D: **The school for me is home.**

Researcher: The first, the second?

D: All, because, you know, I am dreaming [here]. I am not rushing out of here, I stay longer. It feels so good here (...) because here there are many things: **what we make with children, and what I brought from home. Here, I feel at home.** (05/13/2005)

The teachers were proud of their school and classroom spaces—they reflected their imaginations and resourcefulness through current projects and, as such, were intriguing to colleagues.

While physical spaces can be construed as affording or limiting interaction, they did not seem to be strongly influential in restricting or encouraging informal learning opportunities in these schools. What the teachers did with and in them, and their common valuing and assumptions about why, were more likely to create learning spaces and encourage informal interactions between colleagues.

5.5. Organizational arrangements

The schools differed in who created organizational arrangements for informal learning. In the American school, the principal organized the schedule so that the teachers of the same grade level had common preparation time to encourage getting together for informal learning as well as other designated purposes. Usually, the same-grade-level teachers used these meetings to learn from each other, most often about NCLB inspired issues. Sometimes, the teachers from different grades, like Bob, would use this time to meet to discuss pressing issues such as curriculum and testing that affected the whole school.

B: So now, we are trying **to collaborate with the (...) grade**. On one of your tapes, you'll hear John and I talking. We are **in the lunch room**. We were talking about things to be covered in the (...) grade because they were concerned about [State Standardized Test]. And, you know, **we don't ever meet**. So, all the (...) grade happened to be there, and all the [next grade], so **we talked** about that, what needed to be taught and what needed to be covered. **They had a lot of concerns** that they have never had to deal with, so **we helped them out** that way. (06/15/05)

In addition, the principal supported and encouraged the teachers' participation in workshops and conferences. However, the teachers did not report any events in which the principal or a head teacher would lead professional development activities for the colleagues. To the teachers, both positions seemed only administrative.

On the contrary, in both schools in Lithuania, the vice principals of elementary education and leaders of the elementary methods committee, Marija and Ramute, were directly responsible for organizing their teachers' professional development. The Russian school administration enacted top-to-bottom management of teaching quality to prevent the school from a possible closure. In that school, neither the principal nor middle managers provided support for formal professional development or valued informal interactions between teachers. For example, Marija's comment about spending her time during specials (instruction from other teachers) was consistent with what other teachers said and was in contrast with the arrangement in the American school:

M: During specials, I usually **try to check workbooks**. Sometimes, **I go to the cafeteria** to have some tea and chat. (...) **I see the same teachers there** [Teachers from different grade levels had specials at the same time, and would come to the cafeteria to chat]. That is OK because many problems are similar among grades. (1/20/2005)

The teachers felt bitter toward the administration's method of disseminating information, which they regarded as depriving them of agency. For example, Ana expressed her disappointment over staff meetings that took place during the long break, which usually were called unexpectedly during teachers' preparation time to

announce something unpleasant, and often were not relevant to elementary teachers:

A: Sometimes we have "5-minute" meetings. They could be **spontaneously** called. **They inform us** about what happened. For example, the high school students were caught taking cell phones from people on the streets. Often, we have such meetings before fall, winter or spring breaks. They are held during the long break [after the second class period, students have a 20-minute break]. **Usually, there is nothing pleasant. Sometimes they involve the elementary department**, when we are expecting an audit. (05/05/2005)

Different from both the American and the Russian schools, where the teachers either had plenty of time scheduled for their interactions (the American school) or needed to use their personal time after school (the Russian school), the Lithuanian school teachers "found" time to coordinate their ideas and actions in ways that were satisfying for their professional growth and enjoyable on the personal level. We noticed that the teachers' team made many decisions on their own. Thus, we wanted to verify these observations. This conversation occurred with Sigute and confirmed our interpretation:

Researcher: Your team makes a lot of **decisions without administration**.

S: Yes, yes. And often it happens that **we only inform our administration afterwards** that we decided so and so, if it is not any crucial thing. (05/16/2005)

The administration of the Lithuanian school used creative and quick ways to inform teachers about any possibilities for professional development outside the school: the principal attached the newest announcements about the courses to the door of the teachers' lounge, so everyone could see the freshest information and, also, emailed them to all the teachers. For example, as Ramute reported, the principal provided necessary information and support for teachers to pursue their professional development:

R: **We can go to any courses**, just find a sub and go. If the majority of teachers would like to hear about a certain topic, **our principal will make a workshop here**. (Ramute, 01/26/2005)

In addition, the administrators maintained an atmosphere of trust and appreciation for the teachers and their initiative that encouraged and empowered the teachers to develop a tight-knit professional community with high professional standards.

In sum, the different administrative arrangements in the three schools reflected different leadership approaches. They ranged from close supervision and evaluation (the Russian school), to accommodating teachers' professional needs (the American school), to empowering teachers to take responsibility for their work quality and professional growth (the Lithuanian school). The leadership approaches appeared influential in promoting informal learning in the schools; even in an atmosphere of constraint and judgment the teachers initiated collaboration and professional learning.

5.6. Professional relationships

School traditions, physical environments, and organizational arrangement each play noteworthy roles in creating opportunities for informal learning. They provide cultural contexts for the professional relationships through which collaborative learning can occur. Within productive professional relationships, teachers can *tinker, transfer knowledge, research their practice, and engage with middle managers in facilitating their collaborations* (Hargreaves, 1999). Each school's profile of professional relationships reflected

distinct teacher learning patterns that in turn created or failed to create and maintain favorable contexts for teachers' informal learning.

Professional relationships in the American school seemed to be friendly but not yet collegial. Social isolation, assumed to be inherent to the profession by American teachers (Lortie, 2002), exacerbated by the newness of the school and by physical dislocation, probably contributed to teachers not sharing their professional experiences and dilemmas. In this climate, tinkering (experimenting to find out what works), research of practice, and facilitation by middle managers was overshadowed by one single element—simple exchange or borrowing of materials and ideas (Hargreaves, 1999). Nevertheless, some participating teachers in this school engaged in co-tinkering while co-planning and observing their grade-level colleagues' practices—picking up and transferring newly developed understandings into their practice. Teachers seemed somewhat reluctant to talk about their individual trial and error experiences—they fervently protected their professional identity from any possible damage. Rather, they would give examples of “collective tinkering.” For example, Kristi commented on the work of their grade level “collective mind”—bouncing ideas off of each other, trying them out and observing how they worked in other classrooms:

K: But even if we are getting ideas from books it is like we are sitting and “I read that somewhere. **Shall we try it?**” Talking it through and discussing it. Not even looking it up in the book. So, that's mostly **from bouncing ideas one off from another. And trying them out and certainly observing in other classrooms.** That was one good thing about peer coaching is going into each other classrooms because the goal was not to evaluate it. (03/09/05)

However, even peer coaching, introduced formally to the teachers, did not occur on a regular basis, when it was done by only a few. Sometimes negative emotions prevented the teachers from learning from each other. For example, Debbie shared with the researcher a different issue. Her feelings were hurt because she had offered help to a colleague who not only turned it down in a negative way but also talked about it behind her back:

D: I have a questionnaire that I ask all the teachers to fill out. One teacher wrote **negative things. I took it personally.** But I learned a way to deal with the person. And I talked with other colleagues.

Researcher: Did you fix it somehow?

D: I thought it was fixed. I was sitting in the chair lower than hers, in her study. She had a smile on her face when I left and thanked me. But **behind my back (...). I was motivated to help, but she did not want to change.** (...) I was trying to be only sensitive. But **she perceived it differently.** (...) Attitude affects everything. (06/08/2005)

During their planning time, some teachers stayed in their rooms and searched the Internet for resources and others sought out collaborators in different grades. What the teachers did with this time, and whether they developed collegial relationships depended on how many and which teachers chose to collaborate.

In the Russian school, professional relationships seemed to be influenced by stresses from the outside (possibility of losing the job) and inside (pressure from the administration and parents). In order to provide jobs for all the teachers, the administration reduced individual teachers' teaching loads and, thus, their salaries. In addition, the teachers did not seem to be trusted with purchasing supplies that they needed for their classrooms (“Teachers don't get any money for supplies and books,” Marija, 1-20-05). Moreover, teachers were not encouraged to observe in their colleagues'

classrooms or sign up for professional development seminars. If they chose to do that, they had to find a substitute teacher and often paid for the professional development themselves. Nadia commented on her limited opportunities for learning and absence of any choice:

N: I am into a differential approach in grading students (...). However, my lessons still lack differentiation. **I wish I could observe** somebody or read literature. Sharing experience could help but **we don't have such a system.** (...) [I could go to professional development courses] only if there is an opportunity and I can **accidentally find a sub, but it is extremely difficult.** If only these seminars were after lunch... Sometimes, our administration invites somebody. But then, **we don't have any choice.** (1/17/2005)

Nevertheless, the teachers engaged in individual tinkering. They reported trying out different ideas to solve their teaching dilemmas. Transfer of knowledge seemed to be happening on rare occasions, when the teachers had an opportunity to exchange information. However, Ana saw opportunities for interactions depending on personal rather than organizational factors. She brought up the issue of trust and pointed out that the degree of her openness depended on her colleagues:

A: It is **important to interact with colleagues,** but not everyone is open. I do interact with colleagues but **it depends on a specific person.** (...) I am such a person—whatever I learn new and interesting, **I would definitely share.** Maybe, I don't always see an adequate response. Maybe, a person is not interested in that theme. But **everything depends on my colleagues.** I know whom I can come up to and share. For example, I can always share with Marija. **It all depends on a person because people share their experiences, their mistakes.** (05/04/05)

However, due to limited opportunities for interactions, the Russian teachers rarely engaged in knowledge transfer. In addition, they did not participate in research of their practice. A formal internal audit process at the time of the study focused on evaluation of teacher performance; it did not include the teachers in the process by providing them with tools and time for reflection and experimentation with their practice. Though fiscal conditions, national educational policies, and administrative style in this school did not seem to favor informal learning. Teachers appeared highly motivated to use any opportunities for growing professionally, thereby surviving in the profession to which they passionately adhered.

The Lithuanian teachers seemed to engage in all four of the steps of knowledge-creating schools. Reflecting on their professional relationships, the teachers in the Lithuanian schools defined their close relationships to the profession, as did their Russian counterparts. Two out of four teachers, whom the first author interviewed, said that the school was their lifestyle:

Viktorija: **School for me is the second home** (...) It is life. (...) **It is my way of life.** (01/24/05)

And,

Sigute: I am the teacher who **is happy at work.** Why? **Because I feel that I belong here.** I like both the work and the results, when a kid did not know much, and now he is moving ahead. (...) **Here everything depends upon me.** (...) **School for me is my way of life because all my life is saturated with it.** (1/18/05)

In addition, the teachers talked about their school with pride and affection.

However, in comparison to the teachers from the Russian school, who talked about their devotion, these teachers defined their

commitment to the profession differently—as coming from their nation's traditions of caring. Sigute, for example, commented:

S: If we look at the colleagues from other countries—a teacher finishes the job and can forget about it. **It would not be like this here.** We are not likely to put out elders in nursing homes, **because we care.** The same with our work—**we invest all our soul in it.** (Sigute, 1/12/2005)

These teachers practiced tinkering by playing and experimenting with new ideas individually; they engaged in knowledge transfer through observations in their colleagues' classrooms and participation in formal professional development events, following up by exchanging ideas.

Ramute, the leader of the elementary department methods' committee, played a coordinating role. She admitted that their schedule was so tight that they needed to use any spare minute to discuss ideas or problems that they encountered. Therefore, she seemed to prefer informal interactions with her colleagues that provided flexibility for scheduling such discussions:

R: **We talk in hallways, during breaks,** though you can hardly feel the breaks because you are always in the classrooms. Now that the weather is better, **we go outside.** (...) During breaks, there is not much time, but if it is necessary, **I run around and say, "After the third class meeting in my room."** Usually, **twenty minutes is enough** [to discuss an idea]. (05/17/05)

They researched their practice by hosting student–teachers, who fostered their reflections and collaborated with the University faculty; their middle managers encouraged teachers' professional growth by providing information about workshops, courses and projects, by organizing school-based professional development to meet immediate teachers' needs and by providing opportunities for informal learning. They seemed to engage in extensive learning from each other and collaborative knowledge creation. Their drive for learning motivated them to experiment in their classrooms (tinkering), borrow ideas from each other (transfer of knowledge), instruct student–teachers and teach at the University. Their successful collaborative ethos prepared them to explore outside resources and experiment with them together.

"Our school is different from others—we are interested in non-traditional methods. I think we need to sail into **the international waters now.** (...) **Today after classes we'll come together and discuss Socrates project"** (Ramute, 01/26/05).

However, this distinctive school culture that enjoyed long-lasting traditions, rituals of interactions and information transfer, the atmosphere of openness and trust within the community of learners was challenged when a new substitute teacher joined their team. Sigute told the story:

S: We have a colleague this year. She is subbing. So, **she has problems with classroom management.** Other **teachers complain** that it is impossible to work because of the noise coming from her room. There were **different opinions about what could be done.** (...) Several colleagues went to **observe her lessons,** and the school psychologist went and **gave her advice in writing. Everything was friendly.** It's understandable that to get a graduating class for a new person is not easy. On the other hand, **we became a little bit upset** when **she did not take into consideration** any advice but only complained that it was impossible to get that class to work. She does not fit with our team. **We are good to each other, but when there is a problem, we say, "Why don't you do this or that."** Then you see that the person is trying. But **here—nothing happened.** (05/16/2005)

Apparently, the teacher did not suit the team's way of working. After multiple attempts to help her improve, the teachers invited her to a meeting and told her that she might think about leaving because her work quality did not correspond to the team's idea of quality teaching. Then, they informed the administration that she would be leaving, which was accepted. This episode confirmed the existence of the unique school culture that aspired to high professional standards and provided opportunities for learning and professional growth as well as collegial support, but did not tolerate what was communally observed as lack of dedication and motivation for improvement.

In conclusion, the cultures of each school, observed through the interplay among their traditions, physical environments, leadership styles, and professional relationships, appear distinctive, though far less because they exist in different countries, with unique socio-political histories and differently amenable educational policies and systems. These macro conditions seem to influence school cultures for informal teacher learning, but more importantly, these conditions are construed by teachers and administrators in varying ways according to their local circumstances. The three profiles illustrate three disparate cases of teachers interpreting and acting upon these macro conditions to also contribute to the formation of their informal learning cultures.

The profiles of the American and Russian schools' professional cultures illustrate complicated and less productive informal learning situations. The American school illustrates a culture in which teachers did not seem to be inclined to build collaborative learning relationships. The newness of the American school, despite supportive administration with material resources and pressures from NCLB, had not produced a culture of collaboration. For the most part, teachers continued to regard their teaching as a "job" and to act independently. On the contrary, the teachers in the Russian school wanted their collaborative culture back. Their new culture, under new national educational policy, was dominated by administrators most interested in evaluating their performance. Pressures to change and the teachers' efforts to avoid standing out and being dismissed countermanded a long tradition of rich informal learning, so that the teachers surreptitiously grabbed opportunities to collaborate when they could. For them, teaching was more than a job, but their ways of making it so were no longer valued.

The Lithuanian school provides a more positive case, and demonstrates the attributes of a culture of collaboration (valuing individuals, interdependence, openness and trust). The teachers expected to develop and to help their colleagues develop. The teachers and administrators aligned to find and make use of resources within and outside of the school throughout and beyond the regular teaching day. The culture empowered the teachers to make decisions including what, when and how they were going to learn; however, they protected this ethos by closing it to others who did not share their ways of relating.

6. Conclusions

We posit that by the time you read this, the school cultures will have changed as the teachers engage in reexamining and adjusting their beliefs, knowledge and behaviors in response to internal and external social and political processes. Nevertheless, the conceptual frameworks we chose and the descriptions they afforded appear to have been productive in producing case profiles that can be compared. A comparative analysis of the historical snapshots of cultural ethos in these three schools suggests how to distinguish and promote informal learning as a cultural phenomenon. Teachers are likely to engage productively in informal learning in schools in which

- Schools' physical and social environment promotes professional interactions.
- Collaboration is an explicit purpose and process for teachers and administrators.
- Teachers and administrators hold a common interpretation of educational policies.
- Opportunities for outside collaboration are available and supported.
- Teachers regard informal learning as an important part of their professional work.
- Institutional history and national policies create a stable and positive environment.

As we have argued, dynamic, interrelated cultural dimensions reflect differences in the ways the teachers related to and formed their school cultures. These differences were tied to the ways in which their school cultures created opportunities for informal teacher learning, which in turn appeared to be closely related to the historical and social contexts in the countries. In a relatively stable social environment, the American school provided rich administrative and structural opportunities for the teachers to grow professionally in informal settings. These allowed the teachers the freedom to choose their own ways of development. However, such openness and flexibility in the system did not seem to be sufficient to motivate teacher learning and growth, illustrating that while a school system can provide collaborative resources, a culture among the teachers that encourages and values collaborative learning is also necessary.

Like the American school, the Russian school had recently undergone a major change; however, it was a massive alteration in the mission of the school and how it was administered. Whereas, the American school had the opportunity of creating something new where nothing had existed, the Russian school's participating teachers were being made to construct a new social system in place of one they had treasured. Collaboration was a victim of administrators' efforts to get the teachers to comply, and social relationships among the teachers went underground. This profile in comparison to the others confirms that top-down efforts to improve teacher performance that result in the teachers' defensiveness do not promote conditions for informal teacher learning. They work against them.

The Lithuanian school culture, while standing as a positive case, also raises a concern. Created during the recent exuberance of Lithuanian independence, the school members aspired toward high professional standards and provided ample opportunities for learning and professional growth as well as collegial support. Similar to a family, the members expected collaboration with each other to develop and help their colleagues develop. These collaborative contexts empowered the teachers to make decisions, including what, when and how they learned. Also similar to many families' social status, the professional culture tended to be exclusive and intolerant of professionals who did not display dedication and motivation for improvement in the manner they were accustomed to. They held strict standards for new teachers, accepting only those that fit their own values, beliefs and assumptions. While this insularity works to maintain an informal learning environment, it can also lead to narrowness and reproduction, which undermine the purpose of professional learning.

In understanding teachers' efforts to grow professionally the complex dynamics and features of school cultures matter. So do history and policy. The teachers in the Lithuanian school, with its established institutional history and accompanying reputation, were encouraged by the socio-political conditions of independence to affirm their current ways of learning collaboratively and to strive to increase that learning. Conversely, the same national socio-

political conditions led the teachers in the Russian school, with an even longer history and better reputation, to switch their focus from learning to surviving. In the American socio-political culture, including the *No Child Left Behind* initiative and accompanying high stakes evaluation of teachers' competence, the teachers focused on satisfying requirements rather than building a collaborative culture for their personal and shared professional growth.

6.1. Implications and further investigation of workplace informal teacher learning

It appears that, as Billett (2002) argues, the distinction between informal and formal sites of teacher learning is oversimplified and may have outlived its usefulness. The categorical binary masks interrelationships that could improve formal professional development to better assure its applications. As further efforts are made to conceptualize and research informal teacher professional learning, this study's exploratory foray into the phenomenon implies that more can be observed and applied in research and teacher education.

For educational researchers, the study offers conceptual frameworks and methods for further exploration of the relationships we discussed. Listening to teachers' representations of their opportunities for learning and professional development provides a valuable insider's perspective, which can be related to particular local cultures and structures, and in turn be related to national socio-political conditions. Studying these elements together, as they are important to teachers brings into view a phenomenon that is otherwise not visible. Teachers have long complained that much educational research and policy tied to its results does not represent their on-the-job experience.

As this was an exploratory study, the design did not allow for detailed analysis of each cultural characteristic (school philosophy, physical environment, organizational arrangements, traditions and professional relationships), which could be useful for identifying how specific features of each characteristic relate to informal learning opportunities. Additionally, the results of this study raise questions for further consideration, such as: What motivates teachers to pursue informal learning opportunities at their workplace? How does their informal learning translate into practice? What is the relationship between informal and formal learning? Keeping informal teacher learning the focus of systematic investigation reminds teacher educators and policy makers about the crucial role of informal learning in teachers' professional growth and, consequently, in the success of educational reforms.

For teacher educators, this study provides a view of an area that has been undervalued as professional development. This study suggests that preparation of future teachers could be improved by understanding the importance of creating and making use of informal learning opportunities. Once in the schools, teachers could benefit from assessing and developing informal collaborative learning. By acknowledging the importance of this method of career-long professional development, they could enhance their own and their colleagues' learning and contribute to building and sustaining the infrastructure necessary to maintain such development for themselves and future teachers in their schools.

For this result to be achieved, however, the study speaks most strongly to school administrators. It reaffirms Knight's (2002a) and Eisner's (2000) stance that teacher learning necessitates thorough examinations and improvements of school conditions that allow teachers to learn throughout their careers. Through the characterizations and illustrations of the best practices in various school learning cultures presented in this study, school administrators, could improve their efforts to create and sustain learning

cultures in their schools. By understanding how culture is built from many interrelated elements, participants could construct a community that would nurture opportunities by providing stimulating social contexts for teachers' professional change. Such socio-cultural infrastructures and cultures are needed for continual and consistent implementation of educational reforms and to better respond to the needs of ever-changing societies.

Finally, a comparison of teacher learning cultures in two countries with three ethnicities invites an international or global view. This view works against stereotypical perspectives of culture as a nationally, ethnically, or locally monolithic. Locating school cultures within historically marked policy climates that make demands of teachers and administrators argues for more global theorizations. Global conceptualizations of in-service teacher learning should take into account that everyone loses when teachers lose interest in or cannot learn in and from their practice with their colleagues.

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