On Conversation and Design: A Socially Constructed Practice

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Abstract

This paper is about how conversation becomes both instructional design process and reflexive narrative inquiry. The narrative is shaped around the story and restorying of a course redevelopment project in teacher education. Told in three parts, the <u>Start of the Journey</u> recalls our individual beliefs and expectations about teaching and learning and the instructional design process; the <u>Heart of the Journey</u> is our account of how the design process influenced our beliefs; and <u>Reflections on the Journey</u> explores how personal understandings and professional practice are transformed through a process of collaborative conversation. Autoethnography supports both research process and representation.

In 1997 Sue, a teacher educator, approached Katy, an instructional designer, for help in redeveloping an undergraduate social studies curriculum and instruction course. Katy's unit, *Academic Technologies for Learning* (ATL), supported faculty exploring alternative learning environments through the Partnership Program, a five-year instructional development initiative. At its inception several outcomes were pursued across this program including 1) introducing faculty to technology-enhanced teaching strategies and tools, 2) creating technology-enhanced educational resources through a collaborative development process, and 3) promoting faculty use of technology. As it evolved, the Partnership Program also supported faculty to change their teaching practice through active participation in an instructional development project (Whitelaw, Sears & Campbell, 2004). As a graduate assistant and, later, an instructional designer, Catherine was involved in many of these projects and source of both emotional support and critically reflective mirror for faculty and team members.

Sue's course had a component of classroom visitations. "I knew that experience was the best teacher", Sue said. "So I used to take my students out to schools and have them work in classrooms with teachers and children". But when they debriefed these school experiences, her students weren't always positive about what they'd seen. Sue wanted to anchor the learning in a shared context using technology, providing her students with a common starting point for critical discussion about teaching and learning (Barron & Goldman 1994; Bransford, Sherwood, Hasselbring, Kinzer, & Williams, 1990). The resulting Web-based course, *Virtual Field Trip*, was created over two years through the Partnership Program.

This paper is about a design process through which a learning environment reflecting constructivist principles was developed. Told in three parts, the <u>Start of the Journey</u> recalls our initial individual beliefs and expectations about teaching and learning and the instructional design process; the <u>Heart of the Journey</u> is our account of how the design process influenced our beliefs; and <u>Reflections on the Journey</u> explores how personal understandings and professional practice are transformed through a process of collaborative conversation.

Autoethnography : A Socially Constructed Method and Form

The scholar Gregory Bateson once commented on the difference between anthropologists and novelists writing as cultural observers: Anthropologists struggle to describe the aesthetic properties of a culture while, through their personal involvement <u>in</u> the culture, novelists express its emotional detail and texture in narrative form (Kobayshi 1988 in Diamond, 1992). The narrative represents "not only awareness of how one observes and how one thinks about the observations, but also engagement in self-reflexive analysis" (Diamond, 1992, 70). Writing this narrative, which is based on a post-event conversation, is a way to share the personal process of constructing and naming and putting new meaning to work in design.

The story starts with a faculty member's need for a "web page" (Sue's original words), and continues as a learning journey. It is a story of challenges, personal growth, and affirmation of core values. The notion of conversation as a practice informed by constructivism is central to the story of the process and the process itself, shaping the reflective core of this paper. What began as a "web page" grew into a course shaped by constructivist insights, a relational way of working, and the language to shape and name our practices. Like Albion and Gibson (1998) who maintain that individual faculty, sharing innovative teaching methods, can encourage others "to acquire the insights which will enable them to adapt their own practice" (1), we believe that faculty engagement in a design process provides a catalyst to change in

understanding and practice. In fact, the sharing of experience through a social, relational process of collaborative conversation (Feldman, 2000) goes beyond the adaptation of practice <u>to</u> innovation, to the transformation of practice <u>through</u> innovation.

The themes that are explored are taken from a reflective conversation between Sue, Katy, and Catherine, actors in the design story. With Catherine's gentle but critical probing, the conversation gave us a chance to reconstruct our course development experience in a process of narrative inquiry.

The purpose of conversation is to establish a community, the source of power and meaning in society (Tannen, 1990; Minister, 1991). Lyotard (1984) talks about the non-confrontational style of conversation that is in contrast to a traditional, rational academic discourse. A design conversation, possible in a relationship of mutual learning and trust, is one in which "nothing is at stake" in terms of intellectual or moral authority. This power-free form supports and enhances the creativity of instructional design.

We reflect the sense-making process of conversation through autoethnographic writing to invite readers to enter "empathically in to worlds of experience different from their own", and examine their practice through the "evocative power of the narrative text" (Ellis & Bochner, 2000, 748). Often written in the first person, autoethnography is an "autobiographical genre of writing and research that displays multiple layers of consciousness, connecting the personal to the cultural" (739). Personal and intimate in nature, autoethnography is an embodied form of writing that invites readers to put themselves in the experience, and at the same time to reflect on their own design practice, as we are reflecting on ours, through an alternative lens[1].

During the course development process, our conversation provided us with a social structure in which shared collective memories enabled us to do the work of design. The design conversation is both purposeful and personal, and from it come kernels of meaning that are collectively owned (Minister, 1991) and that lead to new stories of meaning. Conversation is also a situated activity, as human activity is about striving to make meaning out of the experiences of daily life, "to construct and reconstruct the narratives of our experience" (Goldsworthy, 2000, 101, after Bruner 1990). By "writing ourselves into our own work as major characters", we challenge both "accepted views about silent authorship, where the researcher's voice is not included in the presentation of findings" (Holt, 2003, 2), and the idea of instructional design as a rational, technical process.

Conversation as action learning

As a result of our experience together, we have come to believe that design is an experience of action learning, in which meaning is made through the critical dialogue-the collaborative, participatory, inclusive, and intentional conversation between faculty member and designer-that supports building and reshaping personal knowledge. Personal knowledge surfaces from prior understanding, and evolves through social interaction. This process of social construction challenges us to step outside of our own views and reevaluate our beliefs about teaching, learning and design. For example, by naming her teaching practice as exemplifying constructivism Sue is able to extend her knowledge and acquire a language to talk about it with teachers and students, in itself a process of sense-making. Likewise, naming her design process

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[1] The format of this paper reflects this non-traditional form of academic writing: the narrative excerpts form the body of the paper while the interpretive notes, set aside from the text, elaborate on key ideas.

as in this way gives Katy a theoretical framework in which to continue to explore her practice as critical and relational.

The structure of narrative

Chanfrault-Duchet (1991) describes narrative structure as a temporal and causal organization of facts and events, as well as the value judgments that make sense of the experience. We signal the significance of experiences by placing them in a meaningful order in the narrative, creating a history that can be told and through the telling reconstituted. As an interpretive process, the development of the story is "embedded and embodied" (Diamond, 1992). The events we choose to tell about are true; the way that we choose to tell them is reflective of subjective reality revealing ideas, feelings, and impact. That is, we dramatize an experience in which we view the possibilities for change through continuing progress and personal challenge (Chanfrault-Duchet, 1991). We remember the experience as a journey that had a beginning and a middle, but is open-ended as we seek new ways to work together and transform our practice as teachers, designers, and researchers.

Start of the Journey

At the start of the journey, we began the relationship building that would underpin the design process, negotiating our expectations of the process and of each other. In this section we reconstruct how our prior experience and understanding about teaching and learning environments was made explicit through the critical dialogue of the design process.

Aligning Knowledge and Values

"Why don't you both tell me how you met and how that led into the development of the *Virtual Field Trip*?" invited Catherine.

Sue thought back to the start of her course redesign project. "I knew that I needed to learn more about computers, so I talked to my colleagues who were already working with Katy to integrate technology into their courses. They were both excited about what they were doing, so I thought, 'I've got to find out whether I can do something similar'. I called Katy, and we went for coffee".

Katy explained her way of designing as a mutual learning process between designer and faculty, beginning with a deep personal connection. "I think at that point in my practice I saw myself as a service person more than anything, so I was there to engage with Sue on her journey. Over time I've begun to see myself more as an academic colleague or a researcher."

Turning to Sue, Catherine asked, "Did you have any perceptions of what an instructional designer did?"

"No", Sue admitted, "I wanted somebody to tell me what to do to make a web page".

Sue laughed as she recalled her impatience to 'just do something'. "Katy said to me, 'We've got some things we're going to talk about; some things we're going to read.' And I remember endlessly asking 'When do I get to make the web page?' It was constant! And yet that was one time where I had to stop and ask myself questions about what I believed about teaching and learning, which has had so many ramifications."

"Your relationship and your perceptions of your professional roles started out as one thing, and that changed over the course of working together and talking about it", Catherine observed. And we realized that coming to understand and appreciate each other's conscious and unconscious expectations about professional roles included a time of resistance and conflict

for both of us. While Sue initially wanted 'action' Katy believed that the process should be one of faculty learning, although she was not entirely confident about her agency in that.

> Katy and Sue describe characteristics of communities of practice that include negotiation, intimacy, commitment and engagement (Kowch & Schwier, 1997) and cross "the boundaries of formal power and status" (Heckscher, 1994, 142 in Kowch & Schwier, 1997). In this view the instructional design process is supported in a community in which values and knowledge become aligned through the mutuality and reciprocity of conversation. The design conversation is a negotiation of personally held views that integrate and scaffold both social and cognitive domains (Fosnot, 1996), and in which ideas are shared as a "form of cultural learning or collaborative learning" (Ewing, Coutts, & Dowling, 1998, 10). As knowledge is personal, through conversation we are able to share personal representations of identity, values and intentions that will enable the work of design to proceed.

Technology and Disorienting Dilemmas

"Let's talk about beliefs about technology and how we saw technology being used at the time", Catherine suggested. "Sue, you started out by saying that you hated technology. How did that view change? Or did it?"

Sue recalled her early stressful experiences with computers. "I had spent day and night for almost a year writing my dissertation so I was ready to throw my computer off the nearest bridge. At that time I didn't even do e-mail or use the Internet."

An elementary French teacher, Katy "was always looking for a way to make learning fun, and technology was a way of doing that. I saw some really primitive early language-learning software for the Apple IIe and remember thinking here are different kinds of environments, language-learning environments for kids where they can actually do stuff; they can manipulate stuff".

Sue and Katy's early emotional encounters with learning and productivity technologies had framed their beliefs about technology's purpose in learning. Katy recalled a positive and engaging experience, but Sue's first encounters were productivity-oriented and mostly to be endured. Consequently, Sue was initially skeptical about using technology for anything more than content presentation (the good-looking Web page). Her growing interest in using technology to create an authentic learning environment is consistent with our understanding of the transformative learning that can result from such a project.

> Transformative learning may be prompted by a disorienting dilemma, or trigger event, proceeding through multiple stages. In other words, it begins as a process whereby we critically examine our beliefs, assumptions, and values through self-examination or critical self-reflection. King (1999) describes this reframing as foundational to our changed frame of "references and perspectives of circumstances, values, and actions" (4). Sue's personal struggles with technology and consequent ambivalence about its use for learning, was a disorienting dilemma, as was Katy's uneasy identify as a support person whose practice was supposedly defined as technical.

The opportunity to engage in a personal, "hands-on" experience of course development may be influential in this process, in which a combination of critical dialogue and practice is a key factor (Boyd, 1997; Chin & Horton 1993; Rosen, 1998; Wilhite, DeCosmo & Lawler 1996).

Heart of the Journey

In the heart of the journey, Katy and Sue began to share language about teaching and design, leading to a shared vision of the *Virtual Field Trip*.

Naming and Shaping Practice

"Katy, prior to meeting Sue, how would you describe your approach to teaching and learning?" Catherine asked.

Katy thought back almost 25 years to her time in the elementary classroom. "I thought learning a language should be resource based and very active, using the language in everyday life experiences. So when spring came around, we would learn about baseball in French, and then we'd learn to play the game in French; talk about baseball legends…your French classroom is a culture so you need to live in it through the language."

Thinking about language as culture influenced Katy's doctoral work (Campbell, 1994) exploring the culture of a course development team, in which she looked at the design conversation as a social process.

Katy remembered a job interview in which she was asked whether she was an objectivist or a constructivist. "I wasn't exactly sure what constructivist meant. But I certainly wasn't an objectivist!" Everyone laughed. "But here is the thing I've since realized about constructivism - it isn't just a tool in your repertoire of design tools. Design is a social, cultural experience in which people change just by being in relationship with each other."

Sue was nodding as Katy spoke. "Constructivism was something I'd read about, but I didn't really connect it to my work at that point. I think we got talking about constructivism because Katy heard me say something about wanting my students to investigate questions about social studies by going out to classrooms".

Communities of practice instantiate social reality through the use of values-based language, on the one hand "de-constructing or dissolving meanings" and on the other creating and supporting them (Gergen, 2000, 19). To become meaningful and shared-a source of knowledge and understanding in the community–the practice must be named. Once named we can be critical of, and reframe, experience. For example, Katy describes a feminist integrated design practice that in essence is reflective of her critical views about technology and learning. Similarly, Sue represents female faculty who describe their instructional decisions as being embodied and reflective of their core teaching values, characterized as participatory, emancipatory, and embodied in the personal experiences of teacher and learners (Kimmel, 1999; Lacey, Saleh & Gorman 1998; Maher, 1987).

Transforming Practice: Process and Design

Catherine wondered how the design process unfolded. "Katy would ask me questions, and then direct me to articles to help me to think a little bit more about what I had just said. I never would have anticipated that that would be a part of what Katy and I would do. I really saw her as helping me make a web page."

Katy was familiar with the initial technology-focus from her earlier experiences with course development projects. Faculty often wanted to see immediate results, that is, the product. "But I knew that the course would emerge out of the whole design process. You have to tolerate a high degree of ambiguity all the time. You know it's going to kind of evolve out of people's interaction".

Sue nodded as Katy spoke. "I can articulate now what I see as being the critical pieces. You have to experience learning in real-life, meaningful contexts. There is the collaborative aspect of learning that came out of the work with Katy and the things that I was reading. I recognize that now as being a really important part of the way my students learn and the way I learn too".

"We're not talking about technology, but rather your views on teaching and learning, and how your use of technology is shaped by that", Catherine pointed out. "Sue, perhaps we could talk about how your philosophy shaped the design of the course."

"Initially the course design was framed by my practical beliefs about what worked for students. So we started by reading (David) Jonassen's stuff and looking at how he was taking constructivism as a learning theory, and then looking at how the technology could be used to create environments that would support constructivist learning principles"

"Katy, when Sue was talking about redesigning her course, did you have a concept of Sue's course that was based in constructivism?" Catherine asked.

"Well, no, I don't think I was very far ahead in that language", Katy replied. "But, I was wondering why I loved designing interactive videodiscs so much. I think it was because you could sort of see multiple stories unfolding. And as we're talking now", Katy continued, "we realize how all this talking turned into the *Virtual Field Trip*".

Kowch and Schwier (1997) note that the "sharing of ideas, however they may be expressed interpersonally or technologically" (3) define a community of mind. These communities are often found in academic contexts, where researchers come together in conversation to "grapple with a shared research issue or problem" (3). Bruffee (1993) characterizes such patterns of conversations as *connected knowing* and a site for constructing knowledge. This aspect of conversation reflects its centrality as a cognitive process in which we work together to decenter, moving beyond personally held views to construct new and expanded representations (Fosnot, 1996).

The Learning Environment: Multiple Realities

In the recounting of this design experience, conversation becomes the story of the experience; conversation becomes the instructional story of the *Virtual Field Trip* – a story that transmits cultural knowledge, such as values, and explanations for events and actions through

the explicit sharing of interior motives, thoughts, and emotions (Polkinghorne, 1988).   In this way the story <u>of the story</u> of the design process is the way that we make sense of the past and the possible future.

And so the *Virtual Field Trip* began to emerge during the fall and winter of 1998/99. The "disorienting" questions that surfaced for Sue, questions that were integral to the both the course design and her experience of the work of instructional design, were reflected in the opportunity to work on an authentic problem in a collaborative, conversation-based community of colleagues[2].

Sue wanted her students to have specific learning opportunities. "Katy thought the first step was to articulate my personal goals for my course. So as I revisited my beliefs about teaching and learning, I began to clarify what would be important. My students would need opportunities to learn from real-life authentic problems and practice. I wanted them to be able to see teachers and children in action and to listen to them talk about their experiences. I wanted there to be built-in checkpoints for my students to engage in reflection. And since adult learners make meaning through collaboration, I wanted my students to experience a 'community of learners' approach' to learning about teaching, where they could interact regularly with me, their peers and others. I wanted the learning experiences to be the focus of the course, not the technology."

To most authentically capture the real-life experience of the school visits, we decided to create a multimedia field trip to a local school. Students are able to view video clips of the learning environment involving teachers, children, student teachers, and administration. Students can also take a visual tour of the school and have access to numerous classroom artifacts such as timetables, the school handbook, lesson and unit plans and curriculum documents.

Figure 1 shows the homepage of the *Virtual Field Trip* website. We designed the page to represent an elementary school bulletin board typically found in the school entranceway.

Figure 1 here

Students reflect and share their learning through conversation in groups, online, and through their own narratives. Finally, they construct a learning activity whose contents and activities reflect the personal meaning they have made of social studies **(**Gibson, 2002**).**

> To accept narrative as representative of knowledge, we must accept that it arises first in life and from there is embellished into art or design (McEwan, 1997). During the design process Sue wanted to create a story for her students that was authentic and credible; that had the ring of truth. But the *Virtual Field Trip* is not only Sue's story - it is multi-authored, composed of many voices–teachers, children, experts, preservice teachers, experts, and curriculum–interpreting personal experiences of 'social studies'.   Multivocality reflects multiple realities, multiple values; multiple meanings.

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[2] Presenting significant questions or problems as organizers can assist in the development of higher order thinking skills and interpretive learning experiences (Koschmann, Kelson, Feltovich & Barrows 1996; Parmley, Hutchinson, Hower, Morris & Parmley, 1995).

Reflections On the Journey

How does a design conversation become foundational to building a practice community that connects participants in time and shared experience?

Conversation As Learning Site

"What are the implications of a conversation-based design process for practice?" Catherine asked.

"Thinking back about my early projects, I realize that while I was practicing in this way I didn't have a way of talking about it, naming it; shaping it with words. But, I think that my beliefs haven't changed so much, even from my teaching days, as they have become much more embedded in my practice. Or, maybe my practice is embedded in my values", Katy mused.

"For me, the most powerful aspects of this experience were the changes in my understanding of constructivism as a way to name and clarify my teaching philosophy, and as a theory upon which to base my practice and my interactions with my students", said Sue. "I think there were two main catalysts for these changes. One was the relationship that I was able to build with Katy, and the second was the conversation that happened as a result of that relationship building. Katy and I were able to clarify our ideas about constructivist theory and come to a common shared understanding of it, and see how to use it to think about the best possible use of the technology to support my course goals, and my personal teaching goals".

Sue shared how the design conversation changed the way that she interacted with all her students in the classroom. "One of the most difficult aspects of learning to teach in a constructivist way was to learn when to stop talking. Rather than being the controller of classroom talk, I find myself in the role of the facilitator, encouraging my students to lead the conversation and to exchange and debate ideas with each other.

"So what is constructivism to me now?" Sue mused. "The primary thing that you have to recognize is that they all bring baggage with them; they all bring beliefs and values that you have to start with. It's taking those first steps to try to find out what that experience base is, that's a critical part to any learning."

"I think it goes back to talking about what is important to me in my practice", Katy said. "A very important part of that is my relationship with Sue I wanted to really get to know her as a person, to connect as women. If that didn't happen…it wouldn't have been a transformative process for me in terms of my own view of myself as bringing academic value to the process".

"If you're looking at the *Virtual Field Trip*, that was the meaning product; the knowledge product, right? But it also represents your learning", Catherine said.

"Well", Sue said, " I expected to come out with a web page, and I did. Not only did I end up having the experience of creating it and all the things that have come out of it-the awards it's won, the articles I've published about it, the recognition I've gotten out from the Faculty and the university-the benefits were just incredible. But then to have it influence my graduate teaching too. And to have such a great relationship with Katy and to be able to continue our research and get into new and interesting areas".

In his work with teacher educators who were beginning to integrate technology into course design, King (1999) observed that they described engagement with expert colleagues as an authentic experience that was characterized as a journey of discovery. Authentic or situated experience leads to a perspectives transformation in two ways: 1) a transformed worldview of education, and 2) changes in curricular scope. In other words, they began to question their previously held views and assumptions about teaching and described themselves as learners who allowed their own learning experiences to transform their view of the profession and of their own educational practice.

Story and Identity

"Sue, you started out saying that you hated technology. How did that change?"

"I still wouldn't call myself very technology literate, and I don't care that I'm not. I know nothing really about the workings of computers, but I do I know how I can get them to support and enhance what I believe is important in my teaching".

Katy agreed. "Frankly, I have a good, healthy fear and respect of technology. But one of the things that's become more and more clear to me is that technology really is value laden. Once you choose to do something with technology, you're already excluding some people, you're going to use resources out there that are really designed from a dominant-culture perspective. There are lots of decisions that you've already made when you've chosen to use technology, and I think people aren't very critical about that".

"What do you think has been the most important outcome for you, in this project"? Catherine asked.

"The thing I treasure the most is the relationship that we have, and how we keep seeing it connecting to the next research question, the next inquiry", said Katy immediately.

Nor did Sue hesitate for long. "In looking back, I can see that so much of what I initially felt as being frustration was, in fact, the diamond in the rough, because it turned out to be the most powerful aspect of the whole experience. Everything I've done since then is tied up in asking those big philosophical questions. Whenever anybody has questions about what they can do with technology, I always say, 'You need to start with the design process first.' It's not enough to tell people they need to use technology; you have to have a vision of how it can enhance learning."

Understanding Personal Action

A social constructivist perspective on the world helps us name and shape meaning and practice through social discourse. As Gergen (2000) points out discourse influences the ways we create social life together. Gergen refers to the reflexive nature of narrative when she describes the "general orientation of social constructionism to be applied to all forms of 'talk', including its own"(20, emphasis is ours).

In this paper, we have recounted our experiences of designing a learning environment through the social constructivist process of conversation. The conversation became a highly privileged, intersubjective language of practice and of learning; a language of process and design, and of meaning-making. We believe that Gudmunsdottir captures this well when she

argues "if the cultural reservoir of practice is ventriloquated through the language of practice, then the language of practice in turn speaks through narrative inquiry because (as culture's primary meaning making tool) it is the privileged mode of capturing and expressing" our practical experience (Gudmunsdottir, 1998, Narratives as meaning making tools, ¶ 4).

The story of our learning journey has three parts - a beginning, a middle, and a denouement. Polkinghorne (1988) describes a schematic, temporal structure as a kind of narrative knowing that helps us understand personal action. In this narrative structure the story begins with a setting in which characters, location, time, and story space are introduced. Once the setting has been established, one or more episodes represent the characters' goal setting and progress towards outcomes. Finally, the narrative includes ending portions that link the episodes and show that they coalesce into one story. This narrative structure is a cognitive device, a way to organize the process of making meaning of the parts of the story and the story as a whole. In a social constructivist view the storying itself is an iterative cognitive process of making meaning within a social community.

Narrative imbues events with "coherence, integrity, fullness, and closure" (Gudmunsdottir, 1988). In placing memories and events in the order furnished by narrative structure we also invest them with moral significance: that is we are able to understand our actions as purposeful, nested in our core values and beliefs, and transformational. In this paper we have employed narrative structure to present several unifying themes – design as conversation, design as community building, design as personal, action learning - that help us "make sense" of our past experience and our future actions as teachers, designers, and learners.

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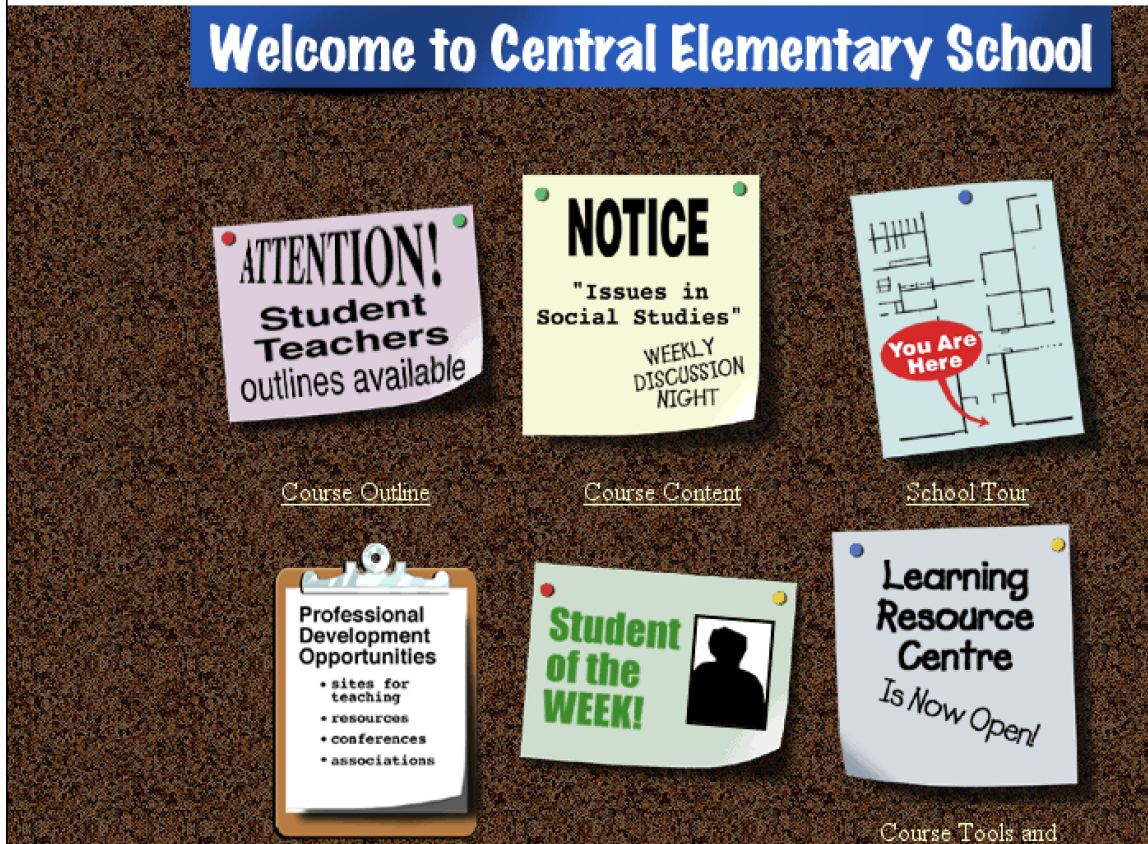
Figure 1 The Virtual Field Trip[3]

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[3] A sampler of the course website can be viewed at http://www.atl.ualberta.ca/project/hatsoff.cfm under Faculty of Education - Instruction in Elementary Social StudieSue Click on *Course Content* on the virtual field trip homepage to examine Problem 1.