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Collaborating with Teachers and Students in Multiliteracies Research: "Se hace camino al andar"

Multiliteracies theory, with an emphasis on literacy as diverse and negotiated social practices involving multimodal work, is particularly compatible with collaborative research, as such research enables researchers and teachers to consider students' multiple perspectives and intentions for their work. This article discusses three collaborative teacher-researcher case studies of teaching and learning in a multiliteracies framework with middle-years students. In these case studies teachers developed literacy projects that explicitly sought to capitalize on students' out-of-school literacy interests and practices. Collaborative researcher-teacher relationships enabled comfortable research relationships with students throughout 6- to 10-week instructional projects; students' perspectives throughout the projects enriched both the teaching and the research. These case studies suggest implications regarding collaborative relationships and stances among researchers, teachers, and students.

La théorie des littératies multiples, selon laquelle la littératie consiste en des pratiques sociales variées et négociées qui impliquent le travail multimodal, se prête particulièrement bien à la recherche collaborative puisqu'elle permet aux chercheurs et aux enseignants de considérer les multiples perspectives et intentions qu'ont les élèves face à leurs travaux. Cet article présente trois études de cas collaboratives entre enseignants et chercheurs portant sur l'enseignement et l'apprentissage dans un cadre de littératies multiples avec des élèves du secondaire. Les enseignants impliqués ont développé des projets en littératie qui visaient explicitement l'exploitation des intérêts et des pratiques parascolaires des élèves. Les rapports collaboratifs entre les chercheurs et les enseignants ont permis l'établissement de rapports pédagogiques amicaux avec les élèves tout au long des 6 à 10 semaines qu'ont duré les projets académiques. Les perspectives des élèves ont enrichi l'enseignement et la recherche pendant cette période. Des conséquences portant sur les rapports collaboratifs entre chercheurs, enseignants et élèves, et les attitudes qui les caractérisent, se dégagent de ces études de cas.

Caminante no hay camino
Se hace camino al andar.
(Walking there is no path,
One makes a way by walking.)
Antonio Machado (1993)

Machado's popular poem reminds us that we make a path by walking, that we do not stop living life to contemplate it. "Se hace camino al andar" (one makes a way by walking) cogently evokes the current circumstance of literacy researchers and teachers: we must make our way in the contemporary literacy

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world while walking with our students. We all must navigate in a literacy environment that changes rapidly. We discern as best we can what is truly new and novel from what is merely faster, what involves "radical change" (Dresang, 1999) from what is only hype.

"Se hace camino al andar" becomes even more difficult for researchers and teachers who attend carefully to young people and their engagement with literacy. We are well aware that young people embrace contemporary literacies in ways that adults sometimes do not recognize or understand (Alvermann, 2002; Alvermann, Hinchman, Moore, Phelps, & Waff, 1998; Smith & Wilhelm, 2002). As we develop a literature documenting how young people walking make a literate path, researchers and teachers also must consider how best to bring newer forms and practices of literacy into classrooms, how best to teach and learn literacy by capitalizing on young people's literate practices. We can accomplish this task well when we take students' perspectives into account, inviting students to share their thinking processes, to consider appraisals of their own work, and to help shape the structures of the literacy work that they do in classes. In effect we walk side-by-side with them.

In this article, I discuss literacy research conducted collaboratively with teachers who wish to bridge the gap between their students' out-of-school literacy interests and their in-school literacy work. How can teachers and students together create curriculum that values and promotes literacy experiences that young people find engaging? How do teachers capitalize on their students' literacy interests? How can teachers and researchers bring students' perspectives on their literacy to the forefront of our work?

Collaborative research can be a productive enterprise for interpreting contemporary literacy education, particularly for literacy research based in classrooms with a focus on multiliteracies teaching and learning. By developing collaborative relationships, researchers and teachers can work together to understand students' experiences of literacy curricula and can respond to students' ideas to co-construct curricula that engages and challenges students in ways that students see as relevant to their literate practices.

In this article, I first consider the contemporary literacy environment and its effect on teachers. I then provide a brief metaview of three classroom-based case studies in multiliteracies teaching and learning as a basis for considering pragmatic issues of relationship and stance in multiliteracies classroom research. In reporting on these case studies, I have co-authored other works with the teachers, but in this article, I present only my own perspective as a researcher.

Contemporary Literacies: Research and Teaching

Contemporary literacy research often focuses on the changing literacy environments in which adults and children participate. New literacies or multiliteracies theory considers literacy to encompass diverse and negotiated social practices and representational modes (Cope & Kalantzis, 2000; New London Group, 1996). Although there is disagreement as to the extent and significance of the *new* and *multi* in literacy, researchers who attend to contemporary forms of literacy frequently note discrepancies between the rich literacy environments on offer in the real world and how difficult it is for teachers to exploit these environments well in their classroom work with children and adoles-

cents. We have a growing literature documenting young people's out-of-school recreational literacy practices (Alvermann, 2002; Chandler-Olcott & Mahar, 2001; Holloway & Valentine, 2003; Mackey, 2002; Smith & Wilhelm, 2002). Such accounts commonly note a serious gap between young people's sophisticated recreational literacy practices and the relatively impoverished practices, assumptions, and expectations they encounter in their schools. Leander (2002) calls attention to this divide, noting the typical spatial and contextual boundaries of literacy practices. Indeed, some schools seem to strive for "homeland security" walls surrounding school-based literacy; some schools impose simplistic zero-tolerance rules against student work that contains suggestions of violence or sexuality, whereas others offer severely limited access to up-to-date computers and inadequate facilities for proper engagement with the larger literacy world.

Ferreiro (2003) urges literacy educators to bear in mind the importance of keeping school literacy tasks akin to the literacy tasks that young people encounter in the real world. She argues that when there is a discrepancy between the two sets of literacy tasks (and literacy opportunities, I would add), young people can easily see school literacy as irrelevant. She attributes the developed world's phenomena of functional literacy and aliteracy (the ability but unwillingness to engage in literacy practices) in part to a gap between in-school and recreational literacy practices that works to discredit school practices in the eyes of the young.

Although a lack of connection between school and recreational literacy opportunities is counterproductive in literacy education, researchers must acknowledge and contend with what teachers know in their bones: that school-based literacy practices are nightmarishly complex, public, and highly political in ways that cannot necessarily be extrapolated from one classroom to another. When teachers choose (or are conscripted) to teach with a multiliteracies focus, the complexity of their work also becomes more *multi*. The pluralization of *literacy* explicitly positions multimodal forms of representation as central to literacy, and consequently often also involves use of technology, which is notoriously unstable and a lightning rod for conflict, even in technology-rich schools.

Much of the initial research on multiliteracies to date has been heavily dependent on explorations of out-of-school literacy practices (van Enk, Dagenais, & Toohey, 2005). However, in addition to explicating the evolution of contemporary literacies, theorists and researchers are developing a body of classroom-sited studies to begin to articulate a sensible pedagogy of multiliteracies (compare Newfield & Stein, 2000; Pahl & Rowsell, 2005). As individuals, we grapple with the effect of new literacy environments on our personal and professional literacy practices; as researchers and teachers, we tease out implications of multiliteracies work in classrooms. Such classroom explorations are by necessity fragmentary and qualitative. In teaching literacy with respect to the broader literacy world, teachers face many challenges, as daily life in classrooms is highly complex and fraught with local exigencies. Community standards, access to technology, and teacher-driven professional development, for example, are only three considerations that directly affect literacy teaching. Researchers and teachers need to document the breadth and

varieties of multiliteracies teaching and learning while taking account of the contextual circumstances that enable or constrain teachers (Barton, Hamilton, & Ivanic, 2000).

Multiliteracies Research in Classroom Contexts

At any time, the work of theorizing and examining pedagogy must be a shared domain among teachers and researchers. The contextual circumstances that shape and bound teachers' daily lives contribute mightily to their sense of what is pedagogically possible in a given classroom. Dressman (2000) reminds us that "narratives of good practice" stand or fall on the contextual information provided, as teachers must be able to imagine or reimagine pedagogy in their particular contexts in order to make use of explanations of good practice. Contextual circumstances are so much a given in a teacher's life that they may be invisible, the water in which the proverbial fish swims. A researcher's perspective can help to make such contexts somewhat opaque and open to reflection and analysis.

Multiliteracies theory strongly suggests the benefit of collaborative research between teachers and researchers. With a clear emphasis on local practices and plurality of interpretations, multiliteracies theory envisages teachers as facilitators in classrooms rich with socially mediated learning activities. The theory focuses on individuals and communities explicitly designing their literacy practices and products; teachers and students together consider the affordances of particular forms and modes of expression. In such circumstances, teachers can assist students to design and redesign compositions with intentionality and with participation in the broader literacy world. Classrooms in which students develop varied ideas and projects are rich learning environments, for teachers as well as for students. By researching collaboratively, teachers and researchers each gain the benefit of the other's perspectives. Together with students, they can tease out the implications of students' intentions in their work, creating opportunities for shared interpretation of literacy conventions that are in flux. Teacher-researcher collaborations are commonly seen to be beneficial to both partners (Arhar & Walker, 2002; Cochrane-Smith, 1991; Costa & Liebmann, 1997; Grossman & Shulman, 1994); in multiliteracies research, however, collaborative research mirrors the principles of the theory itself and offers a particularly valuable way to interpret changing practices and contexts.

Teachers' and students' perspectives on learning and teaching are integrally related in dynamic enactment in classrooms, but they are difficult to study simultaneously. In such collaborative investigations, I work together with a teacher to develop one classroom case experienced from our two perspectives as researcher and teacher with the students as primary informants. The teachers, who have more extended time with their students, have a more comprehensive understanding of the students' literacy development than I do, so their perspectives are essential. In juxtaposing teacher and student perspectives with respect to a shared classroom activity, we can have a "bifocal vision" (Bateson, 1994) to tease out how these perspectives are part of the complex ecology of classroom learning and teaching.

The pressures and complexities of a typical classroom, however, should discourage even stalwart teachers from inviting researchers into their classrooms. Only an intrepid teacher allows a researcher into a classroom, and it is

important to keep in mind that such teachers are a subset, not necessarily typical of teachers in general. The influx situation of current multiliteracies teaching and learning increases the stress for teachers. In Canada, provincial literacy curricula reflect the changing situation: multiliteracies work is implicit in provincial curricula that emphasize varied texts (e.g., the phrasing "print, oral and other media texts" in Alberta curricular documents, Alberta Education, 2000) and Information and Communications Technology documents mandate technology integration across subject disciplines (Alberta Education, 1999). Yet in Alberta in particular, the standardized tests that drive instruction have made little movement toward a multiliteracies focus.

Applebee (1996) notes that teachers have always been negotiators of curriculum and of the cultures they represent to students. Teaching requires knowledge-in-action at a time when what society values as literacy knowledge is contested and when teachers face unprecedented demands for accountability in terms of student performance. At such a time, it is difficult to argue for teachers to engage in such risk-taking behavior as inviting researchers into classrooms, but the benefit of such collaborative enterprise is that teachers and researchers can co-construct meaning. Applebee points out:

> The paradox of knowledge-in-action is that in order to learn something new, one must do what one doesn't yet know how to do. The way out of this paradox is to realize that learning is a social process: We can learn to do new things by doing them with others. (p. 108)

Collaborative multiliteracies research, then, allows researchers and teachers to negotiate understandings and model for students the social and complex dimensions of learning.

Metaview of Three Case Studies in Multiliteracies Teaching and Learning

In planning and conducting three case studies in multiliteracies teaching and learning, I sought out teachers who were interested in teaching a writing project involving online or newer writing environments and/or a writing project with attention to dual modes: at least words and images together. The resulting case studies are context-specific and distinct, taking place in three separate districts and contexts for research with teachers who did not know each other (although this was not part of the design). The teachers all teach middle-years students, although in varying school structures: one project was sited in Peter Weeks' grade 9 class in a high school, one in Greig Connolly and Kindra Burke's two grade 7 classes in a middle school, and one in Karen Letwin's grade 6 class in a K-6 elementary school. I was already acquainted with Peter and Karen when I asked them to collaborate on a research and teaching project. They agreed, and each began to brainstorm ideas for a writing project. Greig introduced himself to me via e-mail to propose working together on a project involving his grade 7 classes and my class of preservice teachers. After we developed this project, I raised the possibility of conducting research as well. He, his colleague Kindra, and their district agreed to proceed with the research.

For these case studies, I sought teachers who began from an *asset model* stance of their students' literacy, taking Tyner's (1998) idea of asset model: that teachers do well to consider young people's literacy behaviors as assets from

which to build rather than as deficits to counteract. The teachers involved did not use the phrase *asset model*, but the concept was part of their implicit thinking. It showed in such comments as, "I know the kids like to chat online and role play. I'm wondering how I can put these things into play in my class. Can they write better narratives if I let them chat and role play?" (Peter) or "I figure the kids will respond well to friendly adults who are models of readers to them. They'll probably like having an e-pal to talk about the literature with" (Greig). Karen noted, "I do a lot of art work with my children, and they love to work on art projects."

Each teacher developed a project that he or she was interested in developing with students. Although we discussed and audiotaped the teachers' initial thinking about potential projects, each teacher controlled all teaching decisions. The projects ran from six to 10 weeks. The projects adhered to several aspects of importance in multiliteracies work: they involved multimodal representations of literacy, social negotiation of work among students, and individual choice. The New London Group (1996) suggests that in any medium or form, people must consider available designs, the affordances of the medium, and resultant redesign. In each project in these case studies, students redesigned literacy processes and products that were appropriate to their intentions, negotiated with their teachers and classmates as they developed unfamiliar forms of expression, and appraised their compositions in the light of their intentions and the affordances they perceived the medium to allow.

Each teacher and I considered the students and the teacher himself or herself as primary informants. Data collection included audiotaped interviews with teacher and students during and at the end of the project and the draft and final versions of the students' project creations. Only one project (Peter's) included videotape in data-collection. Each teacher and I have analyzed data together as much as possible. In most other respects, the three case studies are distinctive in purpose and conduct, as is evident in the following thumbnail sketches.

Case 1: Collaborative Murder Mystery

Peter Weeks' focus in his grade 9 class was on multigenre narrative writing. Peter knew that his students' literacy assets included an interest in online chat and role-playing games. In the project, students each developed and role-played a character in a murder mystery for which they negotiated the starting premises in a class discussion. They used two chat programs (one allowing for private chats and one for multi-user chats) and collaborated in several layers of in-person and online writing. The resulting narrative included visual and textual documents. Peter secretly assigned one student to be the "murderer" and one to be the first "victim," and he circulated their first-person perspective accounts of the murder to the class to initiate writing. After this beginning, the students controlled the narrative development through their role-playing chats. Such an online collaborative writing venture was completely unfamiliar to the students, as well as to Peter and me; we later thought of the collaborative mystery as an "ensemble improvisation" (for a detailed account of this project, see McClay & Weeks, 2004).

Case 2: E-mail Response to Literature

The focus in Greig Connolly and Kindra Burke's grade 7 classes was on response to literature using e-mail to discuss novels with my teacher education students. Greig and Kindra assumed that the students would be interested in developing an online relationship with a friendly adult who would provide a model of an adult reader. They knew that adolescents had opportunities to develop online relationships with people at a distance, and so we waited until the project's culmination to organize a face-to-face meeting among our respective students. In the project, each grade 7 student chose a young adult novel to read with a university pal. Each pair sent initial e-mails for several weeks to get to know each other a little, and then each pair read and responded to their particular novel. Again, the form of writing was new to the students as well as to the teachers, and we jointly considered questions of propriety and tone (often raised by the teacher education students, who were not certain about the degree of informality that would be appropriate in their e-mail exchanges).

Case 3: Pantoums

The focus for Karen Letwin's grade 6 students was to write and illustrate poetry booklets as a way to consider the relationships between words and images. This focus capitalized on her students' enjoyment of a complex poetic form, the pantoum—a form that she had already taught—and their enjoyment of the varied forms and media she had introduced in her art program. Teaching in a self-contained classroom also enabled Karen to integrate art and language arts activities. I initially anticipated that this case study would be the least technologically driven of the three cases and would have little to show us about the uses of technology in contemporary writing. Ironically, however, in some respects, it taught me the most about technology integration, as this project involved simultaneously a fascinating blend of high-tech and low-tech writing materials. Students used scanners, digital cameras, and word-processing programs alongside glue sticks, glitter pens, construction paper, and water color paints. They chose combinations based on their artistic intentions and their perceptions of the affordances of each medium to achieve these intentions. The form they created—illustrated pantoums—was certainly new to all of us. As Karen led them through her own process for illustrating her pantoum, she raised a question about whether deviation from the prescribed pantoum form was allowable, answering with a definitive, "I am not the Pantoum Police!" With Karen's endorsement, students knew that their creations could take artistic license to modify a form as they saw fit.

Relationships in Collaborative Research

The prime directive for researchers involved in collaborative classroom research with teachers is: Do not be a burden. This imperative requires that researchers work flexibly on teachers' schedules, coping with the unplanned or unannounced disruptions to the school day that teachers always juggle. It also, I believe, requires researchers to allow flexibility into the agreed-on research design and procedures, as teachers must be able to modify plans to suit their interpretations of students' needs, moods, and school exigencies. In these cases of classroom research, it was important to me as a starting point that the teachers had complete control over teaching decisions. I was confident that the

multiliteracies projects they developed and taught would provide rich ground for research.

The question of relationship is at the center of any collaborative venture. Relationships hinge on good will and respect, and arguably any collaborative research never begins without such a foundation. Teachers who open their doors and their thinking to researchers must be confident teachers, but they must also be able to trust that the researcher will see, hear, and interpret in good faith and with respect for the daily contingencies that affect teachers' and children's classroom lives. It is not surprising that these case studies derive from teachers with whom I had prior positive professional relationships: in Peter's case through our provincial teachers' association and in Karen's from a graduate-level course she had previously completed with me. Greig and I began to develop a professional association through his suggestion of the teaching project, and his interest in collaborating on the research followed after the teaching project took shape. Later, Kindra brought her grade 7 students into the project. For the collaborative relationships to work effectively, we had to be clear about our areas of expertise and boundaries: we needed to know, bluntly, who was in charge of what. We agreed on the teachers' complete control of the implementation of the teaching project, and we tended to give me control over the data collection. Ethics applications and research assistance were my responsibilities. I conducted most of the interviews, supervised transcribing, and organized data. We shared the essential task of data analysis; in each case, the teacher had less time available for such work, but his or her insights were critical to our interpretation. In each case, shared interpretation enriched and sometimes complicated both of our perspectives. For example, all 22 of Peter's students informed me individually that they chatted online. Later, as Peter and I discussed their comments, he raised a doubt about the truth of the students' claim. He felt that several students made the claim to fit the stereotyped image of the tech-savvy, digital adolescent. Together we puzzled through questions of cultural literacy for these young adolescents: whether self-respecting members of their generation's "literacy club" (Smith, 1988) needed to include online chat in their repertoire.

Lather (1991) highlights the need for university partners in collaborative relationships to attend to reciprocity: to give back value so that teachers and schools are not overly burdened and exploited. Although the question of reciprocity may be less sharply drawn in collaborative research, it is nonetheless an aspect of all relationships. At the most mundane level, I offered to pay each district for a day or two of teacher release time for our research. Such an offer, although not always accepted, provides concrete acknowledgment of the time and energy commitment that a teacher-researcher must invest. Research cannot and should not be seen to occur as an extracurricular hobby for professionals. Many researchers offer to do presentations for school or parental groups to report on the research, and such offers from a collaborative team are essential so that the teacher's work can be properly appreciated by his or her district and administrators. The teachers and I co-author refereed publications and presentations as we can, depending on the interests of each teacher; co-authored works are ways for researchers to mentor teachers into the scholarly and professional publications if they are not already experienced.

In the current changing literacy environment, a researcher may contribute to the relationship by having expertise in analysis of texts that are not conventionally included in school literacy curricula. The two sensibilities that a teacher and I can bring to a student's writing often assist our interpretation. When students are offered opportunities to compose with much choice in newer forms and genres, their compositions (not surprisingly) do not fit neatly into a standardized assessment rubric. In Alberta, teachers often feel bound to or dependent on mediocre rubrics and often do not interpret or notice when students write something of interest that the rubric fails to highlight. When young people write using newer forms or develop their own hybrid forms of writing, teachers may feel at a loss to evaluate the writings (McClay, 2002), and a literacy researcher can offer another sensibility for discussion and analysis of the writing.

Stances of Researcher and Teacher

As collaborative research allows teachers and researchers to develop knowledge-in-action (Applebee, 1996) through shared activity and exploration, we consider the stances with which we approach our work. The teachers with whom I am privileged to work all assume a social constructivist stance toward their own learning as well as that of their students. They structure classroom activities that are social and allow for individual choice and variety, expecting students to learn together and individually in a supportive environment. In multiliteracies teaching, a social constructivist stance is essential. Similarly, in multiliteracies research in classrooms, a social constructivist stance enabled us to work productively to develop knowledge-in-action in a time of rapid change in literacy education. The students' discussion of their learning illustrated several points that are as applicable to research as they are to teaching: research/teaching and learning are social and reciprocal; they are both planned and improvisational; and they are contextually nuanced.

Research and learning are social and reciprocal. Each teacher and I begin with an assumption that whatever writing project the teacher frames will be (and should be) enjoyable for all concerned and will provide unpredictable learning for us. We take a "let's see what happens if …" approach, confident in the teacher's expertise. I stress here that in the current climate of hyper-assessment and standardized exams, it is difficult for a teacher to take such an open stance. Although outcomes-based programs of studies do not inherently preclude experiential learning, high-stakes standardized exams pretty well squash many teachers' senses of adventure in learning.

But given such confident and creative teachers, collaborative research in classrooms can present a model of social and reciprocal learning for children. Students see their teacher and his or her research associate learning together, asking questions, seeking each other's perspectives, and more important, seeking the children's perspectives on their own literacy knowledge and education. Students in all three classes were happy to be interviewed, clearly enjoying questions and discussion that respectfully probed their thinking, processes, and intentions for their work. The stance of being fellow learners was often evident in casual interchanges. One day, for example, I asked a boy to show me how he was mixing colors on the computer. After he demonstrated, I said, "Well, thanks. Learn something new every day." And he replied quite com-

panionably and cheerfully, "Yup. I always do." When I asked students for suggestions in case the teacher wished to do a similar project in the future, students in each class commented that their teacher would, of course, wish to change some aspects so as not to become bored with the project. They expected that learning and variety were essential for their teachers.

Vygotsky's (1978) zone of proximal development is conventionally seen as a zone in which teachers lead students, after careful planning and with clearly delineated steps of progress. However, in contemporary literacy work, the zone of proximal development is at times a zone for teachers and children to enter hand in hand, "bootstrapping" each other's development, to borrow Jerome Bruner's fine terminology (NOVA, 1985), helping each other up hand over hand. In these research studies, the zone of proximal development was a shared zone among children, teachers, and researcher. Teachers and researcher expected to learn with and from each other and with and from students.

The stance of fellow learner, paradoxically, increased the authority of the teachers with their students. The teachers were seen to be thinking on their feet, and students respected a problem-solving approach to the shared activity. Time after time in each project, the teacher or I noted that students had the ability to "torpedo the project," in Peter Weeks' words, but no one did. In each classroom, the surface organizational requirements were complex, but students did not push the boundaries or look to squeeze into the gaps that they could have made in classroom management structures. Students worked individually: chatting in roles as they developed a murder mystery, e-mailing individually to their response pals about their reading, and working in varied media on their illustrated poems. Each project taxed the teacher's organizational abilities, as unforeseen demands were part and parcel of the projects. Students enjoyed the problem-solving aspect of the projects, as their teachers needed to think through specific demands and dilemmas, and they knew that their teachers took their suggestions for solutions seriously. Particularly in cases of technological glitches, students, teachers, and researcher focused on shared problems. Fortunately, Murphy's Law always prevails: the technology always fails, and at the worst possible moment. So there was much scope for problem-solving.

In the two projects involving online work, there were many opportunities for breaches of the school's security policies. Teachers, despite their relaxed authority and positioning as learners, were careful about security and monitoring. A stance of relaxed informality and teacher (researcher)-as-learner is, we agreed, compatible with proactive security and monitoring. Our systematic organization of data would not have prevented security breaches, but would have allowed us to maintain the documentation that would have revealed problems with security breaches had they arisen. Such visible due diligence provides proactive security and in online work, such due diligence is essential.

Such monitoring is a way for researchers to bring a valuable reciprocity to the work, as we have the means to provide methodical collection and organization of data. In both the online projects, it became readily apparent that students could have breached security with little effort. In Peter's class, for example, students took less than 10 minutes to figure out how to circumvent the software's design for establishing chat; as Peter watched in amazement,

students cheerfully took control of the operation of the chats, a supervisory function that was designed to have been controlled only by the teacher. With this subversion of control, students worked faster and kept the narrative moving quickly. In the project with Greig and Kindra, their district technology people set up the student e-mail accounts so that each e-mail was automatically copied both to Greig and to me; students were informed of this condition, and the school students were required to use only their school accounts for sending and receiving e-mail to their e-mail partners. The e-mail generated in this fashion would quickly have overwhelmed us, but we were able to bring a research assistant into the project to monitor and organize the e-mails.

Research and learning are both planned and improvisational. The projects proceeded with careful planning on the part of the teachers, but the lived classroom experience of the plans had an improvisational feel. The murder mystery students (grade 9) and the response to literature students (grade 7) tended to see their teachers as improvising, and they appreciated this quality. One student noted, "This was pretty good considering it was off the top of his [Peter's] head." Though Peter rolled his eyes and groaned on learning of this comment, the student clearly meant it as a compliment.

Similarly, the grade 7 response to literature pals tended to see their project as improvisational; their confidence in their teachers was evident despite the initial glitches in establishing the e-mail partnerships. The individual, personal responses to students' reading pals were clearly spontaneous and unscripted as, for example, when one pair discovered that they both had Dutch roots and subsequently corresponded a little in Dutch as coached by the grandmother of the grade 7 student.

Karen's grade 6 students knew that their illustrated pantoum booklets were unique, as Karen and I had no exemplars to show them. So when Karen modeled her process for creating such a booklet, the class engaged in genuine discussions about composing processes and products. Later, she facilitated a class discussion in which students developed assessment criteria for her to use in grading their work.

The research too had an improvisational feel. Classroom observations, interviews, and other data-collection were scheduled and then rescheduled as needed. In Peter's classroom, for example, we increased the amount and complexity of the videotape as we proceeded, based in part on the availability and interest of a student film crew and their teacher and in part on our realization that multiple-perspective filming would be useful in our attempts to understand all the activity of the class. In Karen's class, one student requested an additional interview to discuss a second pantoum booklet she had written and illustrated because she enjoyed the project. In Greig and Kindra's classes, students' casual comments or questions led us to reexamine our data.

In essence, we structured for improvisational learning in both research and teaching. Teachers must come to terms with the contradiction between experiential, improvisational learning and standardized tests that purport to measure outcomes-based learning. Researchers also face constraints about learning that is not prespecified; for example, funding bodies increasingly expect researchers to delineate in advance what will happen in the research. Such expectations for

tidy teaching and research are constraining, not just theoretically, but also practically.

Research and learning are contextually nuanced. By noting that research is contextually nuanced, I perhaps euphemize the absolute messiness of the enterprise of collaborative research in classroom contexts. The messiness goes well beyond the untidiness of mixed-method research, closely resembling the teenager's messy room in the otherwise tidy house of research. However, as a researcher, I take comfort in Heidegger's (1977) assertion, "The humanistic sciences … indeed all the sciences concerned with life, must necessarily be inexact just in order to remain rigorous" (p. 120). The very inexactness is a dominant, inescapable feature of classroom life with which researchers must make peace when researching classroom learning of teachers or of children. The benefit of such inexactness is that it allows us to examine some of the contextual particularity that is essential to any properly grounded theory of pedagogy.

Multiliteracies researchers, like teachers, must acknowledge that we cannot control a plan, but must have confidence that the value of research in a classroom context is authenticity and creation of knowledge-in-action. In teaching, this more improvisational approach has proven valuable, and I am learning to trust it more in research as well. I am learning to take serendipity when I can in research as any teacher does in teaching.

Collaborative research in classrooms provides both an internal and external view of teaching and learning in a particular context. Damasio (1999) argues that the study of cognitive phenomena requires both internal and external views:

> It is fine for us scientists to bemoan the fact that consciousness is an entirely personal and private affair and that it is not amenable to the third-person observations that are commonplace in physics and in other branches of the life sciences. We must face the fact, however, that this is the situation and turn the hurdle into a virtue. Above all, we must not fall into the trap of attempting to study consciousness exclusively from an external vantage point based on the fear that the internal vantage point is hopelessly flawed. The study of human consciousness requires both internal and external views.… Although the investigation of consciousness is condemned to some indirectness, this limitation is not restricted to consciousness. It applies to all other cognitive phenomena. (p. 82)

The act of teaching similarly requires internal and external investigation. The shared examination of classroom life by a teacher, researcher, and students can illuminate some of the reciprocity of teaching and learning and enrich our understanding. Although we are obligated to sort out the messiness as much as possible, we cannot hope to make research in classrooms a fastidious endeavor, for it simply is not. As Einstein famously noted, "Things should be as simple as possible. But not simpler."

Over 20 years ago, Goodlad (1984) characterized schools as places of ambiguity, values conflict, and continual change. These qualities have arguably intensified in the intervening years, and consequently, teachers' lives in schools have become more difficult, more fragmented, and more politically contested. Teachers of literacy must also contend with the ambiguity, values conflict, and

radical change (Dresang, 1999) in literacy itself. Teachers who focus intensely on their students' literacy developments are aware that their students are walking new literacy paths and are making the paths on untrodden ground as they walk. Literacy researchers and teachers understand the importance of interpreting young people's interests and practices in multimodal literacy so that they can develop engaging and relevant school-based literacy work to bridge new and evolving literacy environments and practices with traditional ones. For literacy researchers and teachers determined to understand and work productively with young people, collaborative research offers fertile opportunities to lay down a path while walking together: "se hace camino al andar."

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