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A "Great Balancing Act:" Becoming Dexterous and Deft with New Literacies Pedagogy

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Step with care and great tact
And remember that Life's a Great Balancing Act
Just never forget to be dexterous and deft
And never mix up your right foot with your left.
(Dr. Seuss, *Oh, the Places You'll Go*)

Like the addressed readers in the famed Dr. Seuss picture book, teachers take a complicated journey in everyday life in contemporary classrooms. Pedagogical approaches popular during their own childhoods, even for relatively young teachers, are inadequate for current literacy education. Contemporary writing practices demand new emphases on "multimodality, creativity, technological and technical complexity;" these qualities must be balanced with demands to maintain the best aspects of "traditional" literacy instruction, to generate broader capacities for "producing different kinds of texts and literacy practices, both of which challenge traditional pedagogical practices and understandings of meaning making and communication" (Edwards-Groves 99). Teachers must indeed "never forget to be dextrous and deft" when attempting to balance new literacies pedagogy with traditional values in composition instruction.

While scholars debate precise definitions of new literacies perspectives, it is generally agreed that these perspectives encompass new ways of interacting and creating knowledge; Lankshear and Knobel consider new literacies to have "new '*technical* stuff' and new '*ethos* stuff' that are dynamically interrelated" [italics in original] (225). The idea that many contemporary social practices involve new 'ethos stuff' refers to the intensely "'participatory,' 'collaborative' and 'distributed' nature of many current and emerging practices within formal and non-formal spheres of everyday engagements" (Lankshear and Knobel 226-27).

In recognition of these changing literacy practices, curriculum documents across Canada's provinces and territories (Alberta Education; Ontario Ministry of Education; Northwest Territories) as well as the Common Core curriculum standards for literacy education (*Common Core State Standards Initiative*) in the United States of America mandate the use of digital affordances in the teaching of reading and writing across the curriculum. The Introduction to the *Common Core State Standards* advocates:

[Students] use technology and digital media strategically and capably…Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn

offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

Curriculum developers and teachers in both countries agree that technology is an important educational tool that can be highly beneficial to learners if integrated sensibly with curricular aims (Borolhovski et al.; Fraser). Furthermore, the increasing presence of computers in K-12 classrooms attests not only to a public acceptance of the value of integration of technology in classroom teaching, but also to the education industry's recognition of the potential economic benefits, as businesses supply the needed instructional software, data management and test preparation tools, etc., and to political agendas seeking greater control over classroom practices and learning outcomes (Spring, 2012). The more recent addition of tablets and e-readers expands the scope of digital work in classrooms beyond considerations of computer use alone.

Computer access and the use of computers in daily lessons have increased steadily in the past decade. In a survey of K-12 teachers in the USA conducted by Gray, Thomas, and Lewis, 97% reported having one or more computers in their classrooms; there was an average ratio of 5.3 to 1 of students to computers. Ninety-five percent of surveyed elementary teachers use the internet sometimes or often in their practices; 14% of elementary teachers used blogs or wikis (compared to 19% of secondary teachers); and 7% of elementary teachers required students to contribute to blogs or wikis (Gray, Thomas, and Lewis).

Even given the positive circumstances of changing conceptions of literacy, increased motivation to incorporate technology, the curriculum imperative, and improved access to technology, it is still challenging for teachers to master core tools and take up the new ethos of new literacies practices (McClay, 2006). The New Media Consortium (Johnson, Adams Becker, Cummins, Esrada, Freeman, and Ludgate) acknowledges the difficulty for teachers: "All too often, when schools mandate the use of a specific technology, teachers are left without the tools (and often skills) to effectively integrate the new capabilities into their teaching methods" (9). This shift has not yet occurred on a large scale: our research in Canada in the mid-2000s showed that although the 216 participating grades 4-8 teachers offered strong and conscientious programs based on process approaches to writing, the majority had not generally made a transition to include new literacies perspectives in their composition instruction (Peterson & McClay). Indeed, earlier research in the USA indicates the slow but increasing use of computers in classrooms for composition instruction: less than 25% of

teachers surveyed in 1993 (Laframboise and Klesius), in 2008 (Cutler and Graham), and less than 60% of grades 4-6 teachers in 2010 (Gilbert and Graham) used computers on a regular basis (at least several times monthly) to teach writing. Needless to say, use of computers does not indicate new literacies perspectives, which require greater focus on participation, collaboration, and distribution of knowledge. Fraser recommends that in order for this shift to occur, educators and learners must be equipped with skills and mindsets to develop learning networks.

How do teachers approach the difficult task of changing their perspectives to take new literacies practices into account? In this article, we trace the learning and pedagogical practices of five teachers who worked with us in a dual-sited action research study for more than two years. These two groups of teachers inhabit very different contexts and schools. Their stories show that there are multiple ways to develop new literacies practices in classroom teaching. We present themes drawn from the teachers' experiences, and, from the varied contexts of these teachers, we highlight implications for teachers and administrators in other contexts who want to make or support this shift. We begin with a discussion of the literature on considerations supporting and hindering teachers in overcoming challenges regarding new literacies pedagogy.

Background and Literature

In considering teachers' practices in integrating new literacies perspectives, we take into account literature on the integration of digital technology as well as literature on new literacies pedagogy. Having and even using digital resources does not necessarily mean that teachers are working from new literacies perspectives; nevertheless, access to technology and ICT mandates are normally important aspects of transitions to new literacies perspectives. In our terminology, we follow Reinking et al., who regard "use of *the new literacies* as a broader term that encompasses, as opposed to being synonymous with, the term *digital literacies*" [italics in original] (1180).

Previous research has categorized supports and hindrances to teachers' adoption of Web 2.0 practices to teach writing into these categories: technical factors; organizational factors at the school, school district and department of education levels; and teacher process and affective factors (Newman). We use these categories to discuss influences on the teachers described in this article. While discussions of contemporary digital ecosystems have moved past "Web 2.0" considerations into considerations of the approach of the "Internet of Things" (Ashton), for teachers working in schools, as well as for school administrators, Web 2.0

considerations still loom large and present practical and conceptual challenges.

Technical considerations at the school level include the availability and quality of resources. Teachers need to have up-to-date computers and equipment and equipment on par with what the students use at home. Such technical considerations are often impediments to teachers, and even when there are many computers available, they are often located in labs that individual teachers can access only a few times a week on a sign-up basis (An and Reigeluth; Fraser; Howley and Howley). Flexible, spontaneous use of resources is not always a given. When access is available, however, recent research provides evidence of the benefit of student access to writing instruction that makes good use of digital affordances. Warschauer (2009), for example, reports on case studies in ten schools featuring daily use of one-to-one laptops for writing; students in these schools showed important gains in their writing.

Organizational factors in schools, districts, and Departments or Ministries of Education can support or hinder teachers' attempts to address new literacies perspectives. Often, a desire for online safety and security dominates pedagogical considerations, resulting in zealous filtering policies. Instructional Technology staff, concerned about viruses, infected files, and student online safety issues, create filtering software that restricts teachers' and students' access to useful websites, thus limiting the potential value of having online access (Brooks-Young; Simkins and Schultz). At the provincial and state level, curriculum documents commonly state optimistic expectations, yet lack clear details or coordination for how districts, schools or educators can realize them (Borolhovski et al.; Vanderlinde et al.). In addition, while ICT outcomes are often mandated in curriculum documents in Canada and the USA, they are rarely reflected in the standardized testing that drives teachers' classroom practices (Peterson, McClay & Main, 2012) for example, in both Ontario and Alberta, where our research is sited, high stakes standardized testing has been a staple of elementary school contexts for a number of years, and teachers are accountable in public and professional venues for their students' results on these tests. Despite the inclusion of new literacies perspectives in the provincial curricula, the tests do not as yet reflect these perspectives, so there is a delicate "parallel pedagogy" (Leander) balancing act that teachers must accomplish in their re-mixing of traditional and new practices. To work in new literacies perspectives, teachers must be willing to take risks—risks that may not be welcome by the district or central administrators who ostensibly promote such work. Kist et al. describe teachers who "have decided to address

[parental] fear [of social networking] by demonstrating in their classrooms the power of social networking in relation to children's literacy practices" (Kist et al. 63).

Organizational aspects and individual teacher process and affective considerations sometimes overlap. Teachers do not always (or regularly, in some cases) have opportunities to participate in appropriate, timely professional development that integrates training for technology skills with focus on pedagogy and curriculum (An and Reigeluth; Ertmer et al.). Professional development, moreover, often focuses not on development but on "training," in which teachers are expected to learn how to incorporate the latest district-purchased package program or district-mandated workshop provided by an outside consultant. Carmody points out that educational publishing is incredibly big business; additionally, districts pay large fees to outside consultants and then obligate teachers to adhere to the structures recommended by these people who do not know the immediate context or students with whom the teachers work. Teachers who are motivated and feel prepared to incorporate new literacies in participatory, collaborative ways to teach writing often find that creating digital and Web 2.0 instructional content is more labor-intensive than other instructional practices (Howley and Howley). Additionally, when using collaborative software or video production, such as wikis or iMovies, teachers must consider issues of copyright, plagiarism, and ownership of work (Brooks-Young). They may have to restrict public access to a wiki, and need to be knowledgeable about the technical and conceptual aspects of new literacies to match assignments to the appropriate online tool (Light). To try to assure student safety, teachers also must teach about digital citizenship and moderate students' postings frequently for inappropriate content or evidence of bullying (Brooks-Young).

Teachers' affective considerations also figure into the integration of new literacies perspectives. To teach in a way that promotes social participation, collaboration, and distributed learning, teachers must be comfortable working in a social constructivist philosophy, with an "improvisational" and less teacher-centred approach (Lankshear and Knobel; McClay & Peterson; McClay & Weeks). They devote energy to developing a classroom community that encourages and supports risk-taking, idea sharing, and critical peer feedback. These behaviours are foundational to collaborative, participatory and distributed writing (Light; Reich et al.).

Methods: "Step with Care and Great Tact…"

This investigation was designed as a three-year action research within two teacher communities of practice. The five teacher-researchers were interested in researching their own development of new literacies pedagogy for composition. The overarching research question for our research has been: *How do teachers develop their new literacies perspectives and competencies for teaching composition?* Each teacher developed research questions and practices appropriate for his or her particular context and wishes. In each site, 4-6 focal students in the teachers' classes were secondary participants. As University-based researchers, we were mindful of "stepping with care and tact" so as not to disrupt the practices of teachers who are already balancing many demands from students, parents, and school and district administration. We have used inductive analysis of focus group discussions, individual interviews, and classroom observation data to recognize patterns in the support and in the challenges that participating teachers overcame as they developed their new literacies pedagogy.

The teachers are located at two public K-6 elementary schools in two Canadian provinces-- Ontario and Alberta. In Ontario, Sara and Kyrie teach at an urban school with a very culturally diverse population. They co-plan and co-teach their mixed-grade 5/6 classes frequently, in particular when they do special projects involving digital work. They rely on each other for professional support and continuing learning regarding new literacies practices. In Alberta, Jackie (Kindergarten), Ellie (grade 3), and Ken (grade 6) teach at a rural school with a predominantly Aboriginal population. Though teaching at different grade levels, the three often speak about their teaching together. Ken has been a school representative on the district technology committee, and through that work, he is aware of and involved in the work of the other teachers. Their school and district have been impressively proactive in seeking opportunities for technology initiatives, and the teachers have been well supported in their work. The two university-based researchers knew the teachers as graduate students prior to the beginning of this research relationship. Though the teachers and university-based researchers primarily worked in their respective school contexts, each university-based researcher visited the other site in addition to her primary site, and the teachers spoke together in a Skype conference at the end of the first year. In Alberta, the principal and district technology consultant were also interviewed; the technology consultant joined in the research conversations on several occasions. Because the rural Alberta school was at a substantial distance (200 km) from the University, there less regular University-researcher observations at this school than at the urban Ontario

site. In both sites, observations occurred during class time with the students and during planning meetings among the teachers. Conversations with the focal children in the classes tended to be informal, occasionally with specific researcher-questions and occasionally in passing as children worked in class and commented on their work.

Teacher Inquiries: "…and Remember that Life's a Great Balancing Act…"

The five teachers with whom and from whom we have been privileged to learn in this collaboration have all focused their teaching on balancing traditionally valued literacy skills with contemporary new literacies practices. Before and during the years of this research, the two Ontario urban teachers, Sara and Kyrie, collaboratively planned cross-curricular projects involving small groups of students in inquiries into environmental, social, and economic issues. In one project, for example, their students collaboratively planned an environmentally-friendly house using a wiki to generate and shape their ideas on the structures and special features of their houses. Another collaborative inquiry project involved students working in teams to take notes, write a report and then create a public service announcement that was later videotaped. The note taking, planning and writing took place on a wiki. Students contributed to the wiki during school hours and at home, often using the chat forum to discuss ideas and encourage each other. Another project involved collaborative team planning on wikis to create a product or service and a business plan (including requests for start-up funding from local businesses) and marketing strategies to advertise a Business Day in the school gymnasium where the products and services were purchased by students from all grades in the school and by people in the neighborhood.

At their rural Alberta school, Jackie, Ellie, and Ken are in a technology-rich environment and participate in a number of provincial, district, and school initiatives occurring simultaneously. They discuss their teaching regularly, often "on the fly" during lunch or in the corridors during the school day and on the commute to their homes in a nearby town. Their school has been awarded funding (through the teachers' and district efforts in writing funding proposals) for several high profile provincial initiatives, including an Early Learning Initiative that brought sets of iPads into the K-3 classrooms and a one-to-one laptop program that began for the grade 6 classes. These teachers, along with others in their school, take advantage of professional development opportunities, receiving strong support from their district. Each teacher in this study framed his/her own inquiries and spoke together and with other teachers as they proceeded.

A brief overview provides a general sense of some of their work. Jackie (kindergarten) explored iPad technology to foster students' literacy, with a particular focus on writing and oral language abilities. Creation, collaboration, and play became dominant themes in this inquiry, and the children used free play to engage in rich spontaneous language and literacy activity—hitherto unexamined time for this teacher. Ellie (grade 3) used iPads and one-to-one computers to enhance literacy learning through narrative. She found that, despite always having had freedom in her class to write about their popular culture interests, students began composing multimodally in new ways that accentuated home identities rather than school ones. They looked at writing as less a school task and more as something that could link to their real-life interests, which translated into exploring new topics for their texts. Ken (grade 6) sought to leverage technology to enhance literacy learning, in addition to a broader goal of learning to integrate Aboriginal culture and ways of knowing into his teaching practice in authentic, respectful ways. Student projects on the Iroquois Nation began in collaborative groups to research information on various aspects of life in the Iroquois Nation; students then created individual iMovies to create narratives, often using traditional music that their relatives had recorded for school use.

Themes/ Findings: "Just Never Forget to be Dexterous and Deft…"

Tracing these five teachers' journeys in integrating new literacies across the curriculum, we find a variety of influential circumstances, and we note the dexterity and deftness with which these teachers navigate these circumstances and opportunities. Some of these, such as the importance of school and district administrative support, have been identified in previous research (Newman, 2012; McClay, 2004, 2006). In the current study, such support and teachers' initiative in taking advantage of the opportunities, have been explicit and noteworthy features intertwined in the fabric of their work; we will begin with discussion of this important aspect of their work. Two features that have not been highlighted in previous research, however, also emerged from our analysis, and we will next turn to these findings. They are: (*1) the creation of their own opportunities to collaborate with colleagues is the strongest professional development for these teachers; and (2) recognition for their innovative practices and perspectives has led to them becoming mentors for other teachers, which in turn feeds their own professional development.* Taken together, these two themes reflect in the teachers' pedagogy the "participatory, collaborative, and distributed" literacy

practices that Lankshear and Knobel note are characteristic of new literacies social practices.

School and School District Support

School and district support come both from opportunities put in the teachers' paths and from the subsequent follow-through to assist teachers as they required. All five participating teachers had taken up school district invitations to attend workshops on using Web 2.0 tools, which helped them to integrate writing and technology across the curriculum. Four years ago, Sara and Kyrie, for example, put in a proposal to be part of a pilot project on how to integrate different web technologies in the classroom. At that time, they learned that only 10 teachers submitted proposals, so all proposals were accepted. This school district initiative provided the initial opportunity for the teachers to receive professional training and support "to give technology a try." Because this was a pilot project, "there was a certain safety," as Kyrie noted about their participation. Their school district provided ample support from "people who could help us at any point in time" (Sara). Although there were high expectations placed on participating teachers, the teachers felt that there was also an understanding that participants would experience a steep learning curve, and it was acceptable to experience difficulties and ask for help. They built confidence by "starting out small" with a science project, which they continue to teach, with modifications. This sense of support for teachers showing initiative continues, as Sara notes:

> I realize that I'm going to make mistakes along the way but as long as we keep revisiting and reflecting on what's working, what's not working, how can I make it work, they'll be able to try to do it successfully....Teachers need to be open to taking a chance and to know that they're not going to get it right the first time.

In both schools, the teachers have many competing curricular demands in addition to those involving new literacies and/or technology integration. In their rural Alberta school, the teachers have folded a dizzying array of initiatives (both voluntary and mandatory) into their daily classroom lives. The chart of Figure 1 provides a brief overview of the school initiatives in which the teachers participate; we include it here to emphasize that teachers typically juggle many curriculum priorities in addition to the extra-curricular ones that are part of school life. Many of these initiatives involve new literacies work and/or the integration of technology in learning.

Figure 1: Teachers' Participation in Initiatives (Alberta)

Name	Type	Origin of initiative	Choice	Support	Comments
AISI	Assessment	P	M	Sup	PD sessions that Keith gave at school based on consortium workshops
Math for Success	Hands on strategies for math teaching	C	M-yr1 V-yr2		Program developed by 2 AB teachers to model how they teach math
Quest	Drama troupe comes to school for a week	T	V, then whole school partici-pated	Sup	Erin wrote grant proposal; funding came 75% from provincial arts group & 25% from parent council
1-1 laptop	Grade 6 students each have laptop	P	V	Sup	SD application; Program began with gr.6 and then expanded to include gr. 5 & 4; workshops for admin and tech people
ReadWrite Gold	Literacy software	C	V		
Accelerated Reader	Literacy software	C	M-for div. 1 in SD	Sup	Support= external person runs stats for comparisons with other schools
Portfolio writing samples	Literacy initiative	S -> SD	M for S	Sup	Mentorship, training within school
PM Benchmark					
Reciprocal teaching	Professional development	C	V	Sup	Within school, teachers observe as others teach
Early Learning	iPad projects	P	V	Sup	District developed proposal for funding from P
EDI mapping	Research in early childhood	P	M		Release time for questionnaire
Healthy eating, healthy living	Blood sugar testing	T	V	Sup	Ken wrote proposal; nurse tests children's blood sugar

Origin:

P=   provincial ministry initiative

SD=   school district
S=   school
C=   private consultant or corporate
T=   individual teacher initiative
Choice:
V=   voluntary
M=   mandatory (imposed by school or higher level administration)
V→ M   Voluntary initiative and then mandatory for teachers in the school
Level of Support:
Sup=   support (release time to attend workshops or to plan together)
NSup=   no support

Teachers attributed their success in implementing the initiatives in part to having access to a skilled district technology consultant. Before becoming a consultant, Richard had been a classroom teacher for many years. He and the three teachers agreed that he is well positioned to assist both with technology and with pedagogical questions. His regular presence in the school is met with eagerness by teachers (not only the ones in this action research) who book his time to work with them in and out of their classrooms. He describes his belief in "job-embedded PD" for technology as the key aspect of his success with encouraging teachers to try new ideas:

> Incorporating what you learned externally doesn't transfer to your own classroom to very great degree. A workshop with 30 people doesn't contextualize or individualize the learning to each teacher's classroom—it's important to individualize to what individual teachers are teaching….Job embedded PD unlocks the doors into teachers' classrooms. In a typical school, one or two teachers might ask me to come into their classrooms, and by the second or third visit, my eight blocks will be filled up when I go to the school. I use a coaching model: "I picked up this in another teacher's classroom—would you like to try it? What are you teaching? Here's what you could do." It's got to be on teachers' terms. I can be the pollinator to spread the ideas from place to place.

Ken adds to Richard's comment: "The PD comes to your door and shows you what can happen. If Richard is in your classroom teaching your students, you can't say, 'It wouldn't work in my classroom.'"

Additionally, the school supports teachers to visit each other's classrooms and to travel to visit the classrooms of other innovative teachers elsewhere in the province. Jackie notes, "There have been little things I've brought back [from such visits]. It's hard to bring things into your classroom from external workshops, but classroom visits give me ideas for what I can do."

These Alberta teachers, like Sara and Kyrie, began with small steps and have continued to modify writing projects using Web 2.0 technology each year, building and refining their pedagogical repertoires. An initiative that brought one-to-one laptops into the grade 6 classrooms had begun two years before the start of this research. Ken notes that a number of the initiatives occurring in the school are mandatory to some extent but allow for individual decision-making: "like the AISI [Alberta Initiative for School Improvement] project—it has to be done, but it's up to you to decide how." Some initiatives, such as the one-to-one laptop program, gain momentum each year; the school has managed to bring the one-to-one laptops down to the younger grades 5 and then 4 levels. The spirit of beginning with one step and spreading beneficial initiatives leads to a sense of appreciation for distributed knowledge in the school that, he notes, "creates a sense of belonging and all contribute."

Creation of Opportunities to Collaborate with Teachers
The five teachers explained emphatically that their most important professional development comes from talking and working with their colleagues, and thus the opportunities and time for collaboration are essential. Their collaborations with each other have been evident throughout this research, as has the strength of such collaborations for pushing their thinking and risk-taking. The comfortable collaborative relationships these teachers have developed provide both the impetus and the safety net for them to try new ideas and then to appraise and refine them in subsequent teaching moments.

Teachers collaborate in impromptu ways that have immediate benefit. Kyrie and Sara's collaboration extends to co-teaching, blending their classrooms seamlessly, and they have worked with the teacher librarian at their school, as well. Their initial proposal for classroom laptops was written with the teacher librarian's support and they frequently sought her recommendations for websites and software.

Collaboration does not have to be within grade groups. Jackie noted that cross-grade sharing is helpful, particularly with the diverse range of student abilities that are typically present in each class: "Seeing what other teachers are doing gives me ideas that seem workable because I can see what happens with students like my own when another teacher tries something."

Participating teachers explained that opportunities to collaborate and share ideas and practices are best when they occur naturally, as individual teachers feel that they are ready to seek them out. They observed that the culture of teaching has traditionally been one teacher per class, with few or

no opportunities to observe or co-teach with colleagues. Ken acknowledged that there was initial resistance from some teachers when the school administration encouraged peer observations and visits to colleagues' classrooms, but when collaboration was expected and facilitated by the administration, teachers came around to it. He noted that one reluctant teacher from the preceding year voluntarily invited Ken into her classroom this year. Similarly, Kyrie noted, "We were open to feedback. . . We used to videotape each other. But even that is hard....It is refreshing to receive feedback with the intention to help you take it to the next step. It helps us to focus our reflections."

Building the comfort levels needed for successful collaboration did not take place only within the school. In their rural context, the three Alberta teachers often carpooled from their homes to the school and to their university courses (a two-hour drive). Jackie appreciated the easy camaraderie: "The car pooling conversations to university classes was an easy collaboration – collaboration is natural here....It's what people here do." Ellie noted the social aspects, too, pointing out that the grade 3 teachers had summer planning days with chocolate fondue, and the grade 6 teachers had a barbecue day together. She noted that, in their rural context, the social aspect is especially important when teachers are new to the area.

Sara and Kyrie are the embodiment of Jackie's advice to "see if you can find someone whom you can work with." They acknowledge, however, that their close collaboration has had its moments of tension. Kyrie explained:

> Bringing 60 kids together sometimes can be hard, but not only is it beneficial for students, it is a lot of fun to co-teach and co-plan. We realized that there were things we wanted to do and we just didn't know how to get started on our own....We butt heads but then we move on. We don't always agree with each other. One of us will share an idea and we might think, 'I'm not sure where you're going with this. I'm not ready to agree with this. I'm not ready to agree with you because I don't see how it's going to fit my students' needs or how I'm going to be successful delivering this.'

In the discussion that follows such "butting of heads," the teachers articulate the tacit understandings that underpin their ideas, and they are better able to develop the ideas well. Ken echoes this idea when he states, "Teachers double their best practices when they co-teach/collaborate."

The Cycle of Recognition, Innovation, and Mutual Mentorship

Taking up opportunities for professional learning, these five teachers were often recognized for their work and offered leadership opportunities

within their schools and school districts. We observed a rich and rewarding cycle of recognition, innovation, and mutual mentorship.

They have been invited by their respective school districts and provincial departments of education to mentor other teachers in taking up Web 2.0 practices in their teaching. Sara explains:

> We open up our classroom as a demonstration classroom for others. We also are part of TACIT [Technology and Curriculum Integration Team], which is offering workshops after schools to teachers, based on specific need. It's a collection of teachers who are doing things with technology in their classroom, and then they offer an after-school session on how they use Web 2.0 technology in their classroom, showing student samples. And then actually give hands-on time in a lab where teachers actually create the accounts, setting up the projects. We're there facilitating whatever it is that they need, based on their needs, during that time. Board initiatives need to be followed up with teacher initiatives. And them just seeing that we were using it, and it might be helpful to other teachers to see.

In Alberta, the teachers believe that the provincial Ministry of Education took note of their school after the success of the one-to-one laptop project. Ken's understanding of this work is that the Ministry, understandably, wants follow-through when a school receives special funding for initiatives: "They want teachers who are cooperative with research—don't take money and run." He sees a ripple effect in the school from the school's focus on student engagement, noting that the students' scores on provincial achievement tests jumped remarkably—an increase of 40% on literacy scores over a 3 year period and steady increases in other subject areas as well—without any change in absenteeism.

District consultant Richard praises Jackie for a session she did at a school division meeting of teachers: "I can tell you what the feedback was from the teachers. It was *'Wow!'*" Jackie acknowledges that she received emails from participants with questions about her coming to their classrooms or about the possibility of visiting Jackie's class. She notes that, in return, she gets ideas from other teachers. Both Jackie and Ellie valued the give and take of such visits, noting that it is good to let others see your mistakes, that such vulnerability adds to one's authenticity as a teacher. Ellie explained: "It's teacher to teacher, not a 'lead' consultant who tells you what to do but is not in the classroom."

"Recognition" is a tricky and fraught concept for many classroom teachers, however. They have learned to be wary of "experts" and people who are somehow set apart from those in the classroom, as Ellie's comment

suggests. There is a particularly delicate balance between leading and pushing people, and the teachers all noted "pushback" when teachers feel compelled to adopt new practices. They recommend that administrators should continue to offer these leadership opportunities but should expect that colleagues' take-up will be voluntary.

Sara and Kyrie recalled three teachers in their school who, as Kyrie said, "gave us a hard time last year" because "they were anxious and just not ready to cope with Web 2.0 tools and teaching." Sara added:

> Now they're coming to our sessions and they're asking questions. We modelled how to start up a wiki and showed how the process is as important as the product. The teachers came back again and again with new questions: 'If we used a wiki as part of our writing program, what could it look like?' and 'How did you decide to do this?'

Implications: "And Never Mix Up Your Right Foot with Your Left."

As we continue to learn with and from these outstanding teachers, we return to Lankshear and Knobel's 2007 characterization of new literacies practices as "participatory, collaborative, and distributed" in nature. We note that these qualities describe the practices of the five teachers profiled in this article. Great dexterity is required to manage a balance of competing tensions and perspectives: never "mix[ing] up your right foot with your left" requires incredible expertise. School structures can support professional development; such practices as common preparation time, teacher-to-teacher mentoring and observations, and follow-up planning and debriefing time after a workshop are valuable for teachers to work through the new ideas they encounter.

The teachers made explicit a view of pedagogical authority coming from classroom practice and they believe that mentoring has a significant impact on teacher practices when it occurs on a teacher-to-teacher basis. Jackie explained: "But what's great about it is that teachers are talking about what they're using in their classroom, rather than a lead talking about 'here's what you can do.' This is actually happening. So I think it makes it more comfortable for the teachers to see what this is, possible and feasible to do."

The professional development that underpins the shift that these teachers have made to new literacies perspectives in their teaching has been participatory in the rich sense of agency—the teachers have taken up opportunities and made choices to participate in various initiatives. They have had support when they wanted it without being made to tolerate undue guidance or direction that they did not seek. They noted that not all teachers

in their schools or districts sought out new opportunities as they did, but they also were convinced that such voluntary initiative leads to the strongest professional development; eventually a school culture can become uncomfortable for teachers who do not want to continue to develop professionally, and, from a kinder perspective, some people need longer than others to see the possibilities of new ideas and practices.

The "participatory" nature of their collaborative professional development is underscored in their discussions of the essential aspect of teacher-to-teacher mentoring; these discussions are founded on the premise that only those educators who are "participating" in the daily give-and-take of classroom life with children can really speak with authority. The participation requires local knowledge to be most authoritative. The teachers attend sessions by other educators at district conferences and workshops, but the construction of knowledge that matters most occurs in the debriefing amongst themselves following such sessions.

The collaborative nature of these five teachers is demonstrated in so many ways; only a fraction of which have been raised in this article. The cycle of collaboration involves recognition and continued development of ideas. We have not discussed the ways in which these teachers collaborate with their students, as that is well beyond the scope of this article, but we see their collaborative spirit consistently in their relationships with their students, as well. Their teaching encompasses the participatory and collaborative practices for their students that they value in their own learning, rather than "replacing the fill-in-the-blank worksheets with web programs," as Sara pointed out. For her and Kyrie, digital technology is "another tool" that allows for student-student and student-teacher communication during and after school hours. They explained that "with wikis, students feel the support system that they would normally feel if they were just working on their own." This extension of the support and informal communication that is so much a part of their own learning is very central to their teaching, as it is for the three Alberta teachers.

For Sara, Kyrie, Jackie, Ellie, and Ken, professional development is and must be distributed, not hierarchical. In Alberta, technology consultant Richard is valued and accepted as a fellow teacher, as he is as likely to work with the children in a teacher's class as he is to observe or plan with the teacher. When asked where he gets his best professional development, Ken replies instantly, "In this building." Clearly, for these five teachers, strong professional collaboration drives their continued learning, but what happens to teachers who are more isolated and less supported in their work? Jackie's advice to "find someone whom you can work with" may have to involve

distance and other kinds of networking. Ellie spoke about reading teachers' blogs to get ideas and connections, and graduate courses provided support and counterpoint for her ideas. Both she and Jackie became part of a network of teachers in their province working with iPads to discover productive uses in their classrooms, and both sought teachers online who are similarly exploring these relatively new tools.

We note that although the teachers found the physical presence of peer collaborators essential to their professional development of new literacies perspectives in their teaching, the available technology facilitates additional "distributed" collaboration. Cyber-connections provided additional avenues for professional sharing of ideas – the blogs that Ellie reads and posts to, the Skype meeting across the two research sites, Jackie's views of the kindergarten classes with whom her students shared videos, and digital projects within the rural district in Alberta all featured as useful starting points for the teachers. For rural teachers in particular, such cyber-relationships can prove very valuable for circumventing the limitations of geography, poor weather conditions, and the expense of travel to observe colleagues. For these teachers, however, the cyber-relationships added to but could not substitute for in-person collaboration.

It is not surprising that teachers who take up new literacies perspectives in their teaching should take them up in their own learning. The challenge is for school, district, and provincial or state administrators to follow the logic and implications of new literacies mandates in education. Classroom teachers will be well positioned to make the major pedagogical shift that the current moment in literacy practices demands if they have agency to engage in participatory, collaborative, and distributed literacy learning.

> *And will you succeed?*
> *Yes! You will, indeed!*
> *(98 and ¾ percent guaranteed.)*
> (Dr. Seuss, 1960, 1988, *Oh, the Places You'll Go)*

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