

Radical Change and wikis: Teaching new literacies

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By using online, web-editing software, teachers can develop new practices that engage students in exploring new literacies and help them gain visual literacy skills.

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"I have never made up my mind about the literacy," the sixth-grade teacher commented as we discussed my upcoming research in his classroom in which I would engage the students in digital literacy practices. He was expressing his response to the rigid assessment culture in which his students were required to take government exams focused on narrow print-literacy parameters. He was hopeful that my work with the class would broaden the literacy learning opportunities. I was interested in seeing if student exposure to Radical Change texts and experience with wiki writing would encourage collaborative work and an understanding of connectivity as a different way to learn and understand. As the study progressed, however, the teacher and I were disappointed because students produced "e-literature" with small chunks of mostly clichéd writing interrupted by seemingly random collections of pictures with a few hyperlinks.

We felt we had overestimated the students' ability to understand and use the qualities of Radical Change in a digital environment. Rather than identifying the qualities of Radical Change

in the books and then using them in their writing, the students were more interested in identifying how pictures made the stories "strange" or "weird" and how they could create such effects in their stories. It was not until I closely examined the interviews, however, and looked at what they had created that I recognized that the students had connected to the visual dimensions of the texts and

adapted those qualities into their wiki writing. In what follows, I describe how our focus on developing broad digital skills nearly led to our missing the subtler learning that was actually taking place as students gained visual literacy skills, and we developed teaching practices that engaged students in exploring new literacies.

Radical Change and wiki writing

Dresang (1999) identified a steadily increasing trend in literature for children and young adults—a trend she labeled as "Radical Change." She carefully chose the word *radical* to point to its Latin origins, *radix*, meaning "root." "I think of the entire body of existing literature for youth," she wrote, "as a sort of rhizome (a horizontal, root-like structure), from which new developments emerge in a random, spontaneous manner" (p. 4). With the world awash in multimedia, characterized by fragmentation, juxtaposition of differing forms, and demands for what Murray (1997)

called “kaleidoscopic” thinking, it is not surprising that we see such qualities also emerging in literature.

Dresang (1999) identified three characteristics, any or all of which might appear in a Radical Change text: (1) changing forms and formats such as new forms of graphics, new levels of synergy between text and pictures, nonlinear and nonsequential organizations and formats, and multiple layers of meaning and interactive formats; (2) changing perspectives such as multiple points of view both visual and verbal and previously unheard voices, including youth; and (3) changing boundaries such as dealing with previously forbidden or overlooked subjects and set-

tings, new types of communities, characters portrayed in new and complex ways, and unresolved endings. My study focused particularly on changing forms and formats because I was interested in students’ use of digital technology to develop their own Radical Change texts in response to the picture books we introduced.

The technology I chose was the wiki because it is an easily learned, open-source software program that allows all users to access and edit the pages on an ongoing basis (Dobson, in press; Luce-Kapler & Dobson, 2005). *Wiki* is the Hawaiian word for *quick* and beautifully describes how users can, within minutes, create webpages. From a wiki launch pad, (see Figure 1) one can create a page, click on the “edit this page” link, (see

Figure 1
Wiki launch pad

Figure 1
Wiki launch pad

HomePage

[HomePage](#) | [RecentChanges](#) | [Preferences](#)



This wiki...

... is here to host resource pages for UBC's Office of Learning Technology, and provide a space for anyone in the learning community who is interested in exploiting it. Email the wikikeeper [brian.lamb@ubc.ca] with your questions, comments, complaints and confessions.

This is a work in perpetual progress, and any contribution is most welcome.

Feel free to start your own piece of this growing wiki universe. For a quick overview on how to get started, check out WikiBasics. Wiki away...

AdventuresInWikiland - an introduction to this waky web publishing environment, and links to some cool applications.

- **WikiOnWiki** is a shambling mess that aspires to be a beginner's workshop.

RousableMedia @ UBC - a set of links to projects and tools to support the use and reuse of digital learning resources.

Figure 2
Editing a wiki page

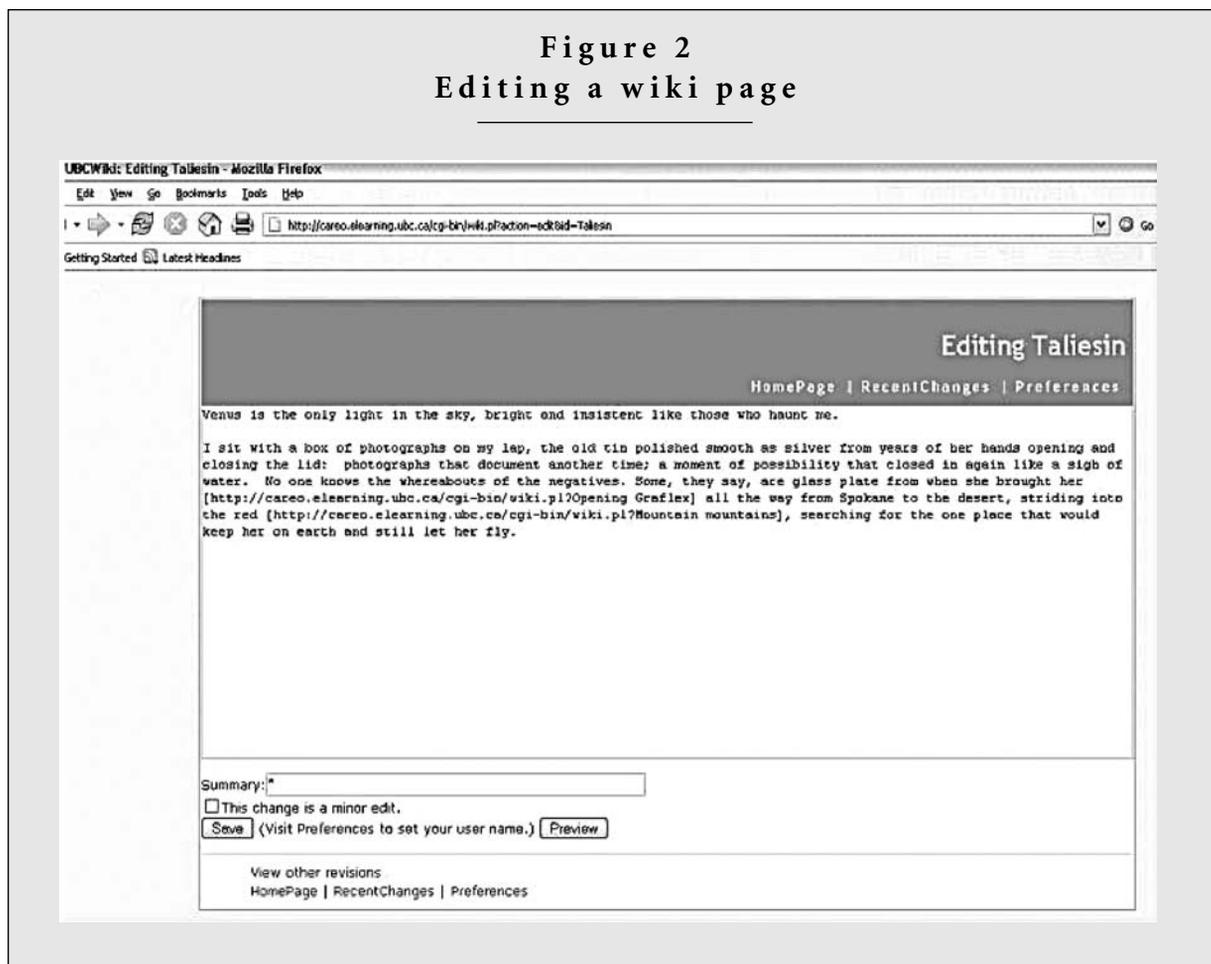


Figure 2) type in their text or revisions, include the URL of pictures if desired, and then click on “save.” Just as easily, users can type in links to other pages created by themselves or others. Without knowing more than how to access the launch pad on the Internet and how to create links, students can begin developing hypertextual stories.

Three months in sixth grade

The project described here is part of a larger, three-year study of digital literacy with both elementary and secondary students to explore different forms of e-literature (e.g., *Patchwork Girl: A Modern Monster*, Jackson, 1995) and software for digital writing (Storyspace and wikis) as well as Radical Change print literature. The overall intention of the study is to delineate some of the

teaching and learning skills and processes for digital literacy. Our data sources include classroom observations and field notes, student interviews, and examples of student digital products.

In the fall of 2004, my research team worked in a sixth-grade class with approximately 30 students (the numbers shifted over time because this was a highly mobile population). They came from a wide range of socioeconomic backgrounds and included a dynamic mix of cultures and ethnicities, both immigrants and those born in Canada. Every week over the three months, graduate students and I visited the class, which the teacher divided into four groups. (One of the groups was composed of two Chinese girls who had just arrived in Canada. My Chinese graduate student worked with them, introducing them to the books and wikis and using translation as required.)

I used two picture books to introduce the class to the concepts of Radical Change: *The Three Pigs* (Wiesner, 2001) and *Black and White* (Macaulay, 1990). These titles along with two others described below were chosen primarily because they represented the changing forms and formats of Dresang's (1999) categories, which was the focus of my study. In *The Three Pigs*, Wiesner retells a well-known tale through three enchanting pigs who challenge the whole notion of the book (e.g., they "notice" the readers, and they jump in and out of other stories such as the nursery rhyme Hey Diddle Diddle). *Black and White* is four seemingly separate stories told on four panels across each two-page spread. As the book continues, the stories reveal links (both visually and textually) that suggest the stories are very much connected.

As I read the books to the class, we talked about what they noticed and how these books differed from other reading they had done. We noted the use of imagery, the multiple connections, the intertextuality, and the challenging story forms. Later, when I met each group in the computer lab to learn about wikis, I reminded them of the books as a way of helping them think about how they could design their texts. I began the wiki sessions by demonstrating that they could create a webpage simply by putting their own code name after the question mark in the URL. Once the students had accomplished this task, I illustrated how they could add text by clicking on "edit text of this page" and encouraged them to experiment by writing a few lines of response to *The Three Pigs*. Later, I showed them how typing the URL of an image chosen through a search on Google Images enabled them to add pictures to their stories. Once they seemed comfortable with these two skills, I demonstrated simple HTML language so they could change the appearance of their text (e.g., `bold` and `<i>italic</i>`). I also encouraged them to look at stories written by their classmates and to make links where they might see connections. While students quickly discovered they could edit one another's pages, the teacher and I asked students

to discuss changes and additions with the creator of the page and get permission after we heard the indignation of a student who had had his spelling corrected by a classmate. The experience suggested that this aspect of the process would need time and specific work with group skills, which the teacher said he would continue to develop after the study's end.

While I worked in the computer lab with one of the groups, two of the graduate students introduced two other Radical Change picture books to the other groups—*Voices in the Park* (Browne, 1998) and *Starry Messenger: Galileo Galilei* (Sis, 2000). *Voices in the Park* is a story told from four different perspectives—a mother and her son and a father and his daughter—with the voice, tone, and artwork shifting with each viewpoint and between socioeconomic classes. The second book, as the title suggests, is an interpretation of the life of Galileo, replete with rich imagery and text that can be visually challenging at times. During these sessions, the graduate students further reinforced the qualities of changing forms and formats with the students.

I anticipated that after their experience with the texts, students would begin to notice some of the metafictional and intertextual features of the Radical Change texts and that they would consciously choose to use them in their responses and the wiki writing. For instance, we thought that the students might make connections between the texts and their experiences with other stories as is evident in *The Three Pigs*. Instead, what was immediately obvious was the tension that occurs whenever one introduces something new into a classroom, especially something that challenges reading and writing practices that have longstanding traditions. On the one hand, the students spent much time commenting on what was unusual about the stories, while on the other, when asked to participate in response activities, they offered responses that were more typical in school. The teacher commented, "In a class where everything is 'seen' and 'judged' by the teacher on a daily basis and...would be inspected by parents,

the students likely viewed the book foremost as yet another obligation.” And yet, between those moments of strangeness and familiarity, the students were noticing and engaging in a different practice of meaning making. Lauren’s comment is indicative of the student insight:

I liked that we talked in a group rather than writing stuff down because writing stuff down is harder than saying it aloud. These authors are...like they’re different. They make the stories into chunks and then have bits and pieces where they want them. I can do it with my story but it’s a bit harder.

We recognized that starting with the familiar (picture books) that challenged the edges of comfort with unusual order, powerful visual representations, and multiple voices were helpful in preparing the students to move into creating their own digital texts and to consider that the medium offered new opportunities for writing. Nevertheless, we did not know how many new skills they would need to create e-literature. For instance, the students did not understand how hyperlinks, beyond taking one to a new Internet page, could actually deepen the meaning of the story or change the expected order of the text. They also could not grasp that making connections to the stories of their classmates would extend the possibilities and interpretations of their texts. Most of them regarded each story as a discrete creation for which one student would receive credit (not surprising because assessment focuses on individual performance). So instead of creating an unusual story order or linking with other texts, they chose to respond to the challenge of doing something different by working with the skill that seemed most familiar—the image.

What we learned from the students

In his interview, one of the students, Joseph, alerted us to what had been important for the students: “I think the pictures are more impor-

tant because they actually show what’s happened because you’re reading and you’re like what? What’s? What’s in the Three Little Pigs? What?” He added that he would choose to write with wikis most of the time because “You don’t have to write with your hand and pencil, and plus it’s funner because you can put pictures in that are actually real pictures.”

In every instance of the individual interviews, the students commented on their observations of the images such as Tera’s comment, referencing *Voices in the Park*. “I like how when on the page where the monkey’s walking the dog you look through the gates and there’s a tree with fire and that’s cool.” The teacher confirmed our observations about the importance of the visual aspects of the stories and wikis in his interview:

I was looking for a whole lot of stuff to carry over and I’m not sure how much I’ve seen yet that could translate to a...sort of a willingness to experiment with literacy like I was expecting. I did see some things though.... For example, I saw kids now...are just routinely pulling down graphics from Google...they just do it so readily.

One of the graduate students made the following observation in her field notes following her time in the computer lab with the researcher:

The largest influence I observed Radical Change having on the students’ wiki writing was their use of images. Most of the wiki print offs looked like visual pieces and artwork as opposed to writing texts. The students working in the computer lab seemed most excited when they were able to find a really “cool” image, especially if it was animated. They seemed more responsive and more familiar with images over text. When asked about what the most important feature of wiki writing is, one boy commented he thought the pictures were most important because they “actually show what’s happened.”

We wondered if the students were more attracted to the visual elements in the books and focused on them in their own writing simply because we had relied on the images to introduce

the conception of “something different” and modeled how we “read” the pictures. Nevertheless, when we interviewed the students, most were able to clearly explain the relationship between the pictures and the story. For example, Joseph had a story that had images of three pigs, but he also had a picture of some snakes. It was not immediately clear to us why that picture was included.

- Interviewer: That’s a very cool snake. Do you think that snake could actually eat the pigs?
- Joseph: Probably. If it’s one off the movie *Anaconda*—a big, giant one.
- Interviewer: What kind of character would he be?
- Joseph: He’d be like the wolf only and it wouldn’t be the same story over it would be a different character.
- Interviewer: OK. The snake would do different things.
- Joseph: Yeah. He would be veniacky evil.
- Interviewer: Where would he live?
- Joseph: He would live in a mud pit. With a little dome underneath the mud.
- Interviewer: Oh so he’d live under the ground in a little dome sort of thing?
- Joseph: Yeah.
- Interviewer: And be veniacky evil?
- Joseph: And have like a lab area.

It was clear from Joseph’s response that he had chosen the image for a specific reason, which he could articulate. He also made connections to popular culture and attempted to use a more sophisticated vocabulary. (We thought he meant *venally* in the instance above.)

The addition of images to the text also served to interrupt the notions of more typical stories the students might write in school. KyeonyMin, in her interview, expressed similar sentiments to other students that this work was different from what they might do for school.

- KyeonyMin: I said I’m going to write a story but make it different.
- Interviewer: If the teacher asked you to write a story in class you probably would have done

something different than this would you? Or would you have done this story?

- KyeonyMin: If we were doing this thing in real writing then I don’t think I would have done that [her wiki story].

At the same time, the students were confident that meaningful engagement with the story would still occur in this “different” and more ambiguous form. Many described how their work could be seen as more than one story (as illustrated by the following comments from Buddy), and they wanted readers to be interested in the creation, whatever their interpretation:

- Interviewer: (after discussing his images) So how are you thinking about this as a story? Like what do you think people would think about it as a story if they read it?
- Buddy: It’s not supposed to be the one whole story. It’s just supposed to be a bunch of stories, differently.
- Interviewer: OK. So how many stories do you think you’ve got going on that page?
- Buddy: Probably four.

Their acceptance of this ambiguity can perhaps be explained in part by Johnson’s (2005) argument that one of the cognitive effects of exposure to multiple forms of popular culture is a tolerance of uncertainty. For instance, he described how many computer games function not by specific, predetermined rules but rather in an ambiguous state where the player must seek out the objectives of the game. A number of current television shows, too, are open ended with meaning developing over time. As Johnson pointed out, popular shows like *The Simpsons* depend, at least in part, on remembering incidents and lines over a number of shows as there are intertextual links among the growing body of episodes. This type of exposure, he contended, has taught students skills such as dealing with ambiguity and multithreaded plot lines.

Kress (2003), in his discussion of the influences of new media, focused more specifically on

the role of image in print and digital texts. He noted how writing has become only “*partial* in relation to the message overall” (p. 11). He understood the text as having a different logic (i.e., time) than the image, suggesting a synergistic relationship:

Human engagement with the world through image cannot escape that logic [spatial relations]. It orders and shapes how we represent the world, which in turn shapes how we see and interact with the world. The genre of the *display* is the culturally most potent formal expression of this. “The world narrated” is a different world to “the world depicted and displayed.” (p. 2)

Many of the students in the study had come to understand something about spatial relations and the logic of image in relation to that of the narrative. When asked what she saw as most important in the stories—pictures or text, Lauren described how she understood the relationship between the two. “Both of them are important because with writing sometimes it can get the wrong thing going with the person that’s reading it, but pictures can help them understand the way it’s supposed to be.”

Although the students may not have written a great deal or branched out beyond their stories to connect intertextually, they did begin to talk and think about images and their role in contributing meaning to a text. Working within the digital medium, they could combine image and print more interactively than before, and, for many students, this experience broadened their possibilities of meaning making in the classroom.

Our approach to teaching digital literacy, while it served to highlight clearly what the students did not yet understand, also allowed a level of engagement with the wiki that facilitated some important learning. Through the teaching practices we used, students were engaged in processes designed to encourage connectivity, intertextuality, and the group skills necessary to understand and work within a network of learning. Over an extended time with these processes, the teacher and I felt the students would make further gains in digital literacy.

Moving from content to process

In a reexamination of how metacognition influenced her teaching, Iftody (2004) noted that it is not enough to teach strategies for learning that students will then apply to other situations. While research has shown that teaching metacognitive strategies may improve performance on certain tasks, such knowledge may not influence the learner beyond the present context. For thinking skills and strategies to be adopted, they must become part of one’s personal framework before they can be transferable to other contexts. New strategies, as Pressley (1995) noted, compete with old, deeply engrained practices and concepts. A recently learned strategy requires more effort and conscious awareness so that there will be less motivation to adopt it when more familiar approaches are available. “Learning how to carry out a procedure does not engender knowledge about how to adopt the procedure, and wide use of the procedure requires extensive adaptation to circumstances” (Pressley, 1995, p. 209). Neither does learning the characteristics about particular texts transfer into engaged meaning making in which one experiences the challenges of such texts.

Our focus on content as we told students about and pointed out Radical Change characteristics revealed our emphasis on trying to control the research conditions and the student awareness of the phenomena under consideration. Fortunately, we also created conditions in which students could engage in the processes of reading and writing such texts and thereby learn something about the relationship between image and word. As Iftody (2004) advised, “It is my contention that instruction in language-based metacognitive skills should be balanced by opportunities to practice ‘other ways of knowing’” (p. 67).

I have come to understand that Radical Change is a useful global term for identifying the relationship among particular qualities emerging in young adult literature, but it is not, in itself, a salient idea that students can understand and adapt

to their experiences of reading and writing—at least not initially. Students need extended experience with the many dimensions of Radical Change—such as the role of image and graphics—to develop a way of engaging with the print and digital texts that is more about a “strategy of orientation” rather than a checklist of skills (Iftody, 2004, p. 66).

In revisiting our activities in that sixth-grade classroom, I identified four practices—focusing events, interacting in groups, enabling constraints, and playing opportunities—that developed such a strategy of orientation. In discussing them individually in what follows, I am not meaning them to be understood as discrete processes, but rather as the various dimensions of our approach in the classroom.

Focusing events

Every teacher knows the importance of engaging student attention before learning can take place and that notion is certainly part of what is meant by this practice. Nevertheless, it is important to emphasize that I am talking about more than just garnering attention. Focusing events go beyond the identification of concepts and the fragmentation of learning into discrete curriculum bytes. A focusing event is one in which activities and specific objects are organized to gather learners’ attention toward a rich, sensory opportunity where multiple ways of engaging are possible (Davis, Sumara, & Luce-Kapler, 2000). As neuroscience has noted, each of us has a unique history of cognitive development and cultural experience (cf. Donald, 2001; Edelman, 2004). To learn we must be able to connect new experiences with what we already know. A focused, rich activity will direct our attention and offer many points of connection.

Organizing activities around picture books was a key element for the students. As we invited them to notice what was happening in the pictures, there were many opportunities for them to make connections to what was familiar and to recognize different experiences in that specific

and sensory-rich environment. We encouraged the students to make sense of how they were experiencing the texts. With the wiki writing, because using images was so easy, they were able to connect their experience of interpreting the images in the books to their own writing.

The students gave only passing attention to our explanations of Radical Change characteristics, but they engaged deeply and meaningfully with the texts we brought to their attention.

Interacting in groups

Although individuals have unique learning histories, this does not mean that this learning has been a result of discrete activities designed for one person. A critical catalyst for knowing and understanding are intersubjective experiences. We greatly enhance our capacity for learning when part of a distributed cognitive network (Donald, 2001). In keeping with the idea that focusing events allow for connections to be made—ones that cannot be preplanned—so too does the group offer opportunities for learning that cannot be predated or planned for; instead, understandings and interpretations emerge through shared projects (Davis, 2004).

The discussions among the groups as they read the stories were a good example of the power of the collective. As one student commented on a detail in a picture, another would pick up on that idea and offer another interpretation. Still others would find the suggestions a motivation to look more deeply at the images or to rethink their own perspectives. The goal was not to come to some consensus about what the book “means” it was to explore the multiplicity of possibility within the Radical Change texts. In the wiki writing, the students were encouraged to make links to one another’s webpages, which they did to a very limited extent. The group conversations, however, were more powerful, such as the one in which Marin learned how to use animated images. Suddenly everyone wanted to learn that technique and there was much discussion and exchange in the

group. In other instances, the students would access one another's pages and then use their peers' ideas as a springboard for their own explorations (even though they usually did not make physical links to the page).

We organized all of our activities for group participation, and, as a result, not only was student learning increased, but we also had the opportunity to learn some things about the stories and wiki writing that we had not considered (such as the wiki animation). By giving up some of the control and allowing ideas to emerge from the group, we had a richer and more interesting experience.

Enabling constraints

As we explained in focusing events, learning activities that have a variety of opportunities are important. But connected to this freedom is the need for a clearly defined focus. In order to learn, a student needs to know where to turn his or her attention, even while encountering multiple possibilities for exploration. Such is the intention of enabling constraints—a description for any activity that offers specific guidelines and limitations to focus student action while still allowing enough openness for a variety of expressions (Davis, 2004; Luce-Kapler, 2004).

In our study, the texts themselves acted as enabling constraints. The students were encouraged to explore freely but within the boundaries of those pages. With the wiki writing, I gave the students particular tasks that confined their type of response without limiting what they might choose to say or illustrate. For instance, I began by asking them to create a link to a page that I had prepared and to write a response on a new wiki page.

As with the other teaching practices, enabling constraints reveals a dynamic in learning: There is energy in the interactions between the student's learning history and new experiences, between individual and the collective, and between freedom and limitation. In the last practice, we will see how best to activate this dynamic energy through playfulness.

Playing opportunities

Play is enabling constraints at its best. Whether we are involved in an organized game such as tag or an imaginative activity such as playing house, there are boundaries and sometimes quite specific rules that limit the extent of our engagement. At the same time, there is room for a variety of responses and actions. Perhaps this is why we generally find play so enjoyable—it invites us to engage at a meaningful level.

In school, we tend to relegate play to times outside the classroom and reserve a more controlled approach for our organized occasions of learning. In our study, however, while students sometimes had schooled responses to our activities, for the most part they saw our offerings as unlike their usual fare and seemed to have little hesitancy in trying out ideas, exploring with few reservations and engaging with others in learning about wiki writing. While some might see this as an opportunity for chaos, because we had a specific focus with particular boundaries, the students were largely attentive to engaging in the process. Furthermore, within the groups, the incidental sharing of ideas and demonstration of new techniques among peers, led to learning that we could not have anticipated.

Engage students in the process

Many of what Lankshear and Knobel (2003) called “new literacies” demand engagement with new modalities (Kress, 2003). In a world where students are learning many of their literacies through popular culture (Johnson, 2005), teachers must think carefully about modalities of teaching. What is known about how people learn? What technologies are emerging and demanding our understanding? What is important about how we have envisaged our teaching? What do we need to change? These questions, among others, suggest that we need to be aware of how the manifestations of literacy are broadening and changing. We need to think less about teaching content and more about engaging our students in the

processes. Above all, we need to “not make up our minds” too quickly by settling for assessment-driven ideas or succumbing to our own assumptions about what will unfold in our teaching. As Davis (2004) reminded us,

Teaching and learning are not about convergence onto a preexistent truth, but about divergence—about broadening what is knowable, doable, and beable. The emphasis is not on what *is*, but on what might be brought forth. Thus learning comes to be understood as a recursively elaborative process of opening up new spaces of possibility by exploring current spaces. (p. 184)

NOTE

I gratefully acknowledge the contribution of the grade six teacher and his students described in the article. I am also grateful for the support of the Social Sciences and Humanities Council of Canada that funded this research.

For a related lesson, see “Collaborating, Writing, Linking: Using Wikis to Tell Stories Online” at www.readwritethink.org/lessons/lesson_view.asp?id=1087. This lesson by Jane Ann Chin and Rebecca Luce-Kapler is published on the ReadWriteThink.org website, a partnership between the International Reading Association and the National Council of Teachers of English, with support from the Verizon Foundation.

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