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Teacher Learning for New Times:

Repurposing New Multimodal Literacies and Digital Video Composing for Schools

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Needed: New Literacies for New Times

In the technological and cultural contexts of the past two decades, the notion of literacy has significantly shifted from the conventional sense of reading and writing *only* print text *to* an expanded sense of reading and writing multiple forms of non-print "texts," as well (IRA ,2001; NCTE, 2003). In this expanded view, more than ever, literacy is plural: "reading" and "writing" include literac*ies* or *multiliteracies* (New London Group, 1996), that is, producing and understanding multiple, representational print and non-print forms deeply embedded in new social practices and contexts.

New Multimodal Literacies

The term "New Literacies" brings together thinking across several disciplines and constitutes a sociocultural approach to literacy practices in the digital world (Gee, 2003; Kress, 1999, 2000, 2003; Lankshear & Knobel, 2003; Street, 1995). As used it here, New Literacies refers to these developing social practices that incorporate *multimodal* means for representing and communicating knowledge, including "the performative, visual, aural, and semiotic understandings necessary for constructing and reconstructing print- and nonprint-based texts" (Alvermann, 2002, viii). Computer-based digital technologies provide new (and quick) access to these multiple modes of representation, creating "digitally afforded multimodality" (Hull & Nelson, 2005).

As a "once in several centuries" innovation (diSessa 2000), the computer has been transforming our world and shaping these new textual and social practices. The computer offers a dazzling array of

digital forms/texts--electronically processed images and video, hypertext, webpages, spreadsheets, game interfaces, simulations, interactive stories, multiform narratives, Facebooks, music videos, blogs, video blogs (vlogs), zines and other print-mixed assemblages. These forms have extended not just the *material* basis for literacy, but also its social processes and cultural contexts. The digital affordances and dynamics of the wired world have influenced how all of us work, think, live: daily life most often includes use of email, instant messaging, voicemail, and Internet web-pages with images, voices, music mixed with print. The "new landscape of communication" (Kress, 2000, p. 183) is marked by the emergence of domains besides language at the center of everyday communication--particularly multimodalities such as images, music, and bodily movements—which unlike print language are created and need to be "read" with non-linear logic. As print-mixed texts are now widely constituted through more than one mode or means of representation, the literacy practices needed for functioning in the world have been and still are rapidly transforming (Leu, 2002).

Especially for the "Millennial Generation" (Hagood, Stevens & Reinking, 2002)—youth born after 1981—reality includes new literacies embedded in these new technologies (Alvermann, 2002; Lankshear & Knobel, 2003). They have grown up surrounded and shaped by practices related to computers, the Internet, and mobile phones (arguably a portable computing device for communicating, taking pictures, playing music and games, word processing, storing information). As a significant part of youth culture, these everyday tools and artifacts bind adolescents together in a social culture through communication and meaning making. Increasingly, the Millennial generation immersed in popular and online cultures thinks of messages and meanings *multimodally*—not just in terms of printed words, but also in terms of images and music.

In all, we live in *new times of digitally accessible multimodality for designing texts as part of evolving social purposes and practices*. Theorists and researchers in New Literacies Studies have reached a clear consensus: facility with interpreting and designing *new multimodal literacies* will increasingly be required by human beings to communicate, work, and thrive in the digital, global world of the 21st century (Alvermann, 2002; Buckingham, 2003; Cope & Kalantzis, 2000; Gee, 2003; Jewitt & Kress, 2003; Kress, 2003; Lankshear & Knobel, 2003; New London Group, 1996; Street, 1995). These scholars agree, also,

that significant changes will be needed in schooling, in teachers, and, especially, in educational beliefs about the status/design of non-print modes as ways of knowing and communicating.

Needed in Schools/By Teachers: Performance Knowledge and Design

One important consequence of the intense proliferation of knowledge in the digital age is the transformation of what counts as *knowing* (Lankshear & Knobel, 2003). The status of propositional knowledge—knowing *that*—has changed: in the context of a superabundance of digitally accessible informational "texts," no one can "know" all there is of importance to know in the world. What's essential is *performance knowledge*—knowing *how* to find, gather, use, communicate, and imagine new ways of envisioning assemblages of knowledge.

This dramatic change to "knowing as an ability of perform" (Lankshear & Knobel, 2003, p. 173) reflects the rethinking of knowing in an age of "digital epistemologies" where emergent social practices are aimed at garnering attention to one's point of view on collected resources. These "practices of knowing....reflect a range of strategies for assembling, editing, processing, receiving, sending, and working on information and data to transform diverse resources of 'digitalia' into 'things that work'" (p. 173)--that is, into new digital resources and multimodal texts with representational meaning and communicative purpose.

Many argue that if these essential new literacies are to enter classrooms as powerful learning tools and enabling practices for social futures, schools must change from the current approaches of "institutions of old learning" that prepare students for life and work in the print-only industrialized world of the past (O'Brien & Bauer, 2005). As a result of the "social and cultural revolution" ushered in by new technologies (Grabill & Hicks, 2005), more and more students arrive at school more competent in these New Literacies than their teachers (Chandler-Olcott & Mahar, 2003; Leu, Kinzer, Coiro & Cammack, 2004, p. 1599). This gap between New Literacy practices and print-based schooling has been called "the digital divide and disconnect" (O'Brien & Bauer, 2005, p. 126). Critiques of existing schooling point to the "more compelling and motivating" multimodal learning that students engage in outside of school (Gee, 2004) as an explanation for increasing student disengagement in classrooms.

Some argue that the problem is that teachers are largely "outsiders" who have grown up and work in a print-based space, while students are largely "insiders" who have grown up in a digital world of new

literacies (Lankshear & Knobel, 2003). Others claim that the problem is educational policy and the structure of schools, "not just teacher generational resistance" (Luke, 2002, p. 197). What they do agree on is that traditional schooling and literacy are not adequate for the 21st century public, private, and workplace spheres. Integrating the dramatic broadening of purposeful literacy to include multimodal meaning-making systems beyond printed text for all students is an essential—if not *the* essential—task for schools in the 21st century (Miller & Borowicz, 2006).

The needed sea change in schooling would best begin with providing opportunities for teachers to transform their roles, knowledge, and beliefs--especially their views on what counts as literacy and evidence of learning (Koehler & Mishra, 2005; Leu et al., 2004). For the most part, instead of drawing on millennial students' facility with new literacies in school learning, the school "preference for print may preclude teachers from even noticing their students' competence with multi- and digital literacies" (King & O'Brien, 2002, p.41). Restrictive school practices of literacy are characterized by a bias for printed propositional knowledge, recitation, the structured expository essay, and the student practice of scanning for textbook answers (King & O'Brien, 2002; also Anyon, 1997; Finn, 1999). This "deep grammar of schooling" (Lankshear & Knobel, 2003) foregrounds the view of knowledge as a propositional commodity held by the teacher and supplied to the student and helps to account for the relatively superficial changes technologies have brought to schools (e.g., word processing and presentation tools). To integrate new beliefs about knowledge and literacies into classrooms, the notion of "teachers first" is important for guiding efforts: teachers need opportunities to learn how to use new multimodal literacies for their own authentic purposes with support for their ongoing needs--before they can effectively use them in their teaching (Lankshear & Knobel, 2003, p.67). The necessary initial step, then, is for teachers to develop performance knowledge through design themselves and, thereby, develop understanding of the wired world of the digital age, where knowledge is multimodal, co-constructed, and performed or represented, not absorbed.

Finally, central to this changed view of knowledge in new times is the concept of *design*. Arguing for an urgent change in school curriculum, Kress (2003) explains that since language is a time-based, sequentially organized mode, while images are space-based and simultaneously organized, competence with mixing these modes involves *design*. The multimodal meaning-making systems available in digital

multimedia texts include the potential of designing linguistic, visual, gestural, audio, and spatial elements dynamically to communicate (New London Group, 2000, p. 26). Facility with *design*--the process of orchestrating representational modes and their interconnection—is therefore vital for composing a text that can meet the communication demands of new and future multimodal environments. "Design refers to how people make use of the resources that are available at a given moment in a specific communicational environment to realize their interests as makers of a message/text" (Jewitt & Kress ,2003, p. 17). In short, in the digital age "the task of text-makers is that of complex *orchestration*" for authentic purposes (Kress, 2000, p. 160). As reviews of research illustrate, a recurring problem with teachers' uses of technologies in classrooms is inattention to such multimodal design and to new ways of knowing (e.g.,Leu, Kinzer, Coiro & Cammack, 2004, p. 1600).

Chapter Outline

This chapter next discusses what research suggests about professional development aimed at transforming teachers' classroom uses of new multimodal literacies. I argue here that digital video composing is a quintessential multimodal literacy that can play a key role in those professional experiences and have positive influences on students and classrooms. The term *digital video composing* aims to conceptualize and emphasize the knowledge-assembling and communicative functions of this multimodal literacy practice.

In what follows, first a review of the work on teacher professional development for integrating new literacies into the curriculum focuses on what research says about what does not work and what seems to be promising. In the remainder of the article, teacher professional development for learning to integrate digital video (DV) composing into the curriculum as a new multimodal literacy practice is reviewed, followed by an overview of a growing body of work situated in a DV composing program that examines both teacher learning and subsequent changes in student engagement, learning, and school performance.

Teacher Professional Development on New Literacies

What does research suggest about what works and what does not, in teacher professional development for integrating new literacies into the curriculum?

Problems with assumptions and epistemologies

Schools *have* attended to what they perceive as the need for technology in classrooms. The profusion of technology standards at the state and national levels suggest that training teachers to use technology (read: hardware and software) will allow them to apply that knowledge to unlock "the power and potential of technology" in their classrooms (Mishra & Koehler, 2004). However, this perspective positions teachers as consumers of technological knowledge in stand-alone workshops and courses and has not led to their effectively integrating technology into teaching (e.g., Miliken Exchange on Educational Technology, 1999). The consensus is clear about what does not work to develop the deep understanding that teachers need: focus on basic technological skills, short-term workshops, stand-alone instructional technology coursework, decontextualized training on software, lack of focus on authentic practices of designing (Apple Classrooms of Tomorrow [ACOT], 1995; Brand, 1997; Koehler & Mishra, 2005; Milliken Exchange on Education Technology, 1999). Increases in hardware, software and Internet connections in schools have not led to widespread technology integration, and teacher professional development for learning technology has generally not produced changes in teaching and learning (e.g., Brand, 1997; Leu et al., 2004).

From the New Literacies theoretical perspective, key problems in much professional development include focusing only on technological knowledge, excluding authentic literacy practices, and failing to provide opportunities for teachers to learn how to support student design of multimodal texts. In their study of literacy learning and technology in twenty classrooms, Lankshear & Knobel (2003) found problems with teachers appropriating new technologies for "schoolish practices" (p. 67) that were very unlike authentic social practices for meaningful purposes in the world. In part, teachers had not experienced uses of technology that were socially meaningful in their own lives, so they focused on the operational aspects of technologies, adapting them to status quo teaching practices. With traditional mindsets about knowledge—like teacher as final knowledge authority—technology integration was largely "reduced to teaching [students] how to drive the new technologies," (p. 31), instead of expanding possibilities with new literacy practices for communicative purposes.

When millennial students meet old school technology, research evidence suggests that students are familiar enough with meaningful New Literacies in their lives that they manage to stay under the radar of teachers instructing in artificial practice on technology or software (e.g., typing tutorials, Excel, Internet

scavenger hunt): these students spend their computer time purposefully writing fan-fiction, creating Zines, and designing websites (Chandler-Olcott & Mahar, 2003; Thompson, 2005). This secretive work of students represents authentic New Literacies—with students bringing their out-of-school design capabilities into classrooms--but quite apart from the school technology agenda.

Promising Insights on Teachers Making the "Cultural Jump"

Developing through support over time. From such experiences, Lankshear & Knobel (2003) conclude that the first issue in any effort to integrate new literacies in schools requires ongoing support for teachers to use new literacy practices "for their own authentic purposes" (p. 67), before attempting to integrate practices into classrooms. They argue that teachers need *experiences as insiders* in new literacies as social practices to prompt a change to a mindset more congruent with "digital epistemologies" (p. 172).

Then comes the effort to transform teaching practices. According to findings from Apple's longitudinal study of professional development in 100 classrooms in three schools, effective integration aimed at changes in teaching and learning (not just access to technologies) occurs over the course of several years (ACOT, 1995). Teachers need time and support to move through a developmental progression from initial adoption of technologies for maintaining existing traditional instruction *to* more advanced levels of *appropriating* technologies for developing new approaches to teaching or *innovating* with new uses for technologies. Supporting teachers' "evolution of thought and practice" (Apple Education, 2004) does not happen in a few workshop sessions. Similar conclusions appear in reviews of research on professional development for meaningful technology and literacy integration (e.g., Coiro, 2005): to learn best, teachers need ongoing support, time for interaction and reflection with other teachers, and effective *models* of teaching and learning literacies with technology for authentic communicative purposes and audiences.

Situating New Literacies in context. A natural forum for developing such effective models would arise during courses in teacher preparation. Through a five-year design experiment for studying teacher development in rich uses of technologies in university courses, Mishra & Koehler (2004; also Koehler & Mishra, 2005) created a conceptual framework to break down the perceived dichotomy between technology and subject-matter knowledge that has hindered some approaches to professional development. They drew on Shulman's concept of "pedagogical content knowledge" (PCK), the relationship between subject matter and teaching, particularly "the ways of representing and formulating the subject that make it

comprehensible to others" (Shulman, 1986, p. 9). Their contribution is an emerging concept called *technological PCK* or TPCK, which refers to situated understandings of how to use technologies to represent and teach concepts difficult for students and to build on their existing knowledge and ways of knowing. Attending to these transactions through this complex, relational form of knowledge, they argue, leads teachers to "appropriate, context-specific strategies and representations" of technology for potential use with specific students in the teacher's specific content-area (Koehler & Mishra, 2005, p. 95).

Teaching here is appropriately viewed as complex performative practice, which helps to explain the problem with professional development approaches that construct teachers as mechanically "applying" and "implementing" knowledge from their technology "training." What teachers need, instead, is engagement in design-based activities in their content-area with technologies and opportunities to develop the deep professional knowledge needed for integrating them into the complex performance of teaching students in a subject (Koehler & Mishra, 2005).

Using this strategy, the researchers studied teachers as they collaboratively pursued educational problems in specific contexts by designing technology solutions (e.g., designing an online course, a website, a digital video). This "learning by design" worked: educational technology majors in their master's classes successfully learned the affordances and constraints of technologies, the processes of purposeful design, and the power of engaged, active learning. It is not clear whether their class experiences later influenced their teaching: researchers concluded with the "hope that this view of learning and teaching" would carry into classrooms (Koehler & Mishra, 2005, p. 99).

Foregrounding multimodal affordances. Although TPCK is helpful in representing the complexity and situatedness of teacher knowledge, it may still under-represent what teachers need to know to integrate new literacies in classrooms. In a case study of a fifth-grade teacher who completed school district professional development on technology integration, for instance, Shanahan (2006) found that the teacher adapted technologies over the school year through student hypermedia projects to engage them in understanding science concepts. Analysis of the social and cultural context of the classroom revealed the co-presence of both traditional and new literacy skills and strategies, and students incorporated non-print elements into print-based projects as they made sense of ecosystems and acid rain. This seems to be an appropriate multimodal strategy for young students learning to represent complex concepts.

However, the findings show that in the instructional space "the focus on print as the valued information medium constrained the development of the students' new literacy skills and strategies. Students rarely thought strategically about the use of visual and auditory design elements" (p. 231). The teacher represented only print text as an information medium, and this assumption constrained how students used visual and auditory modes for understanding. This under-use of the affordances of multimodality because of the teacher's unconscious print bias suggests another needed focus for new literacies professional development—direct attention to the orchestration of multiple modes. More explicitly foregrounding multimodality as a theoretical framework (e.g., Kress, 2003)--to merge multimodality to new literacies as its essential affordance—is a promising approach to this problem (Miller & Borowicz, 2006).

Foregrounding a multimodal perspective, a teacher educator in a class for pre-service English teachers (PSTs) engaged students in design of curriculum as a recursive, multimodal inquiry (Albers, 2006). Beginning with one major fiction text, students sought out related "multimodal expressions" (e.g., video, digital texts, photos, drama, painting, music, sculpture), and focused attention to the meaning potentials that choices in modes of expression afforded, for example, in a Tupac printed poem, as sung by his mother, and as a powerpoint interpretation with images, music, and written text. PSTs learned to move away from textbooks and teacher guides to focus on how students represented their understanding, retranslated it from one mode to another ("transmediation"), and multimodally connected their lives and experiences with literature. This broad focus on meaning making through multimodal arts provides a model for English teaching afforded by digital texts and technologies. The teacher educator ended on a hopeful note, suggesting that her PSTs would be more likely to support their future students to "imagine expression in a variety of modes" in the context of schools (Albers, 2006, p. 97).

Scaffolding reflections on knowledge and multimodal design. A somewhat similar focus on multimodality occurred in a graduate course in literacy and technology taught by a group of teacher educators studying their emerging pedagogies at the same time they explored their K-12 in- and pre-service teachers' learning (McVee, Bailey & Shanahan, 2006). For them, new literacies integration did not mean acquiring computing skills, but learning self-reflexive examination of "multimodal and multisemiotic reading and composition with the grammars and conventions that each modality requires" (p. 4). Multiple

online and in-class forums for reflection on readings, collaborative design activities, and ongoing scaffolding of metacognitive strategies in the class created a context for critical reflection on "the role of digital technologies in literacy instruction." The initial "fear and loathing" (p. 12) that emerged among teachers and PSTs in the class highlighted the complexities of this undertaking. Fear of losing control, of failure, of the unknown surfaced in reflective responses. These real tensions mediated by shared problem solving in design/redesign experiences and reflections led to struggles and to growth in teacher knowledge and thinking.

But did these teachers take their emerging knowledge into their own classrooms? A collective case study of two teachers from this class (Bailey, 2006) provided an interesting opportunity to examine this question. The teachers were both ninth-grade English teachers from the same suburban high school who shared their lesson plans and said they desired new literacies integration into their curriculum. Yet the outcomes in their classes were quite different. Terry Martin's use of new multimodal literacy activities was impeded primarily by her teacher-centered pedagogy. Using the same assignments and activities as the successful teacher, the purpose she constructed orally for student tasks was monologic--merely covering authoritative content, not orchestrating modes in meaningful representation and communication. Student response generally was "mock participation and procedural display" (Bloome, 1986). Terry did not develop in her teaching of new literacies over the year.

In contrast, the other teacher, Carol Smith, orchestrated many opportunities for her students to learn the curriculum by creating opportunities for her students to read and compose multimodal texts. Through her ongoing reflection on her experiences in the university class, her own teaching, and her students' experiences, Carol moved *from* using new literacies as a motivational hook for students *to* developing a "New Literacies Stance," which included (1) enacting literacy as a social practice with the capacity to draw on students' connections and out of school knowledge and (2) making multimodal design a priority that included "explicit instruction in new, as well as traditional, forms of representation and communication" (Bailey, 2006). Successfully integrating New Multimodal Literacies into this classroom allowed students to design dialogically, use local knowledge and, over time, develop metacognitive strategies for designing multimodally. Here is evidence, then, that the pedagogy of the teacher education class did successfully induce a change in Carol that put her on the road to transforming her teaching.

In the findings from Bailey's (2006) inadvertent naturalistic experiment, two necessary elements for professional development on new literacies surfaced: explicit attention to *scaffolding reflection on digital epistemologies* to promote dialogic beliefs about knowing *and on metacognitive strategies* for multimodal design.

The study also makes clear that following teachers into their classrooms after professional development opportunities to examine impacts on teaching and learning is indispensable for uncovering potentials for and negative drags on *teachers*' design of new literacies pedagogies and *students*' design-based learning in the contexts of schools. If we accept the consensus notion that new literacies are emerging social practices in "synergistic, reciprocal, and constantly evolving relationship with older literacies" (Swenson, Rozema, Young, McGrail, & Whitin, 2006, p. 355), then the education field urgently needs such research on the challenges and supports for teachers attempting to sustain students' authentic new literacies for learning subject-matter in institutions of old learning (i.e., schools). And educators need additional strategies for assisting the teachers like Terry Martin who completed the same class as Carol, but did not develop along the same path to make the profound "cultural jump" (Cope & Kalantzis, 2000, p.223) to new multimodal literacies.

Mediating change through collaborative talk and activity. Another component at play in the Bailey (2006) study was an emerging role for the researcher as a collaborator in Carol's class. Due to personal, family, and scheduling issues, Terry was not available for informal conversation with Bailey, which Carol had before and after every visit. Carol used those times to voice what she had noticed about her students' work and her concerns, reflecting aloud about what changes she might make. Bailey used some of those times to member check her emerging findings about the class. Carol appropriated the researcher's language. For example, she began talking about her students bringing in "local knowledge." She regularly talked to Bailey about the importance of "integrating technology into her lessons to create multimodal experiences" for students. Then Carol asked Bailey to co-teach the multimodal poetry interpretation with her, providing opportunities for collaborative planning and debriefing conversations. In short, the collaborative talk served as another mediator for Carol's transformation.

Other research provides evidence that close-at-hand collaboration situated *in the teacher's classroom* can lead to rapid teacher transition to new literacies. In mutually respectful relationships, these

partnerships prompted changes in curriculum, pedagogies, and teacher identities, as classes moved toward student use and design of New Multimodal Literacies (Borowicz, 2003; Ikpeze, 2006; McMaster, 2004).

In an intentional collaboration on infusing multimodal literacies into a fifth grade curriculum, Ikpeze (2006) found that through *joint* planning of new literacies activities (Webquests, powerpoints, discussion boards), teaching, and review of student multimodal work, the teacher developed an understanding of *purposeful integration of new literacies for inquiry*, moving away from computer use as merely a reward for completing class work. Through writing and discussion eliciting students' interests, what had been out-of-school literacies for students became teacher-sanctioned topics and tools for inquiry for class (e.g., a child doing research on his favorite kind of video game; a self-sponsored magazine published by a small group becaming a whole-class magazine).

In this class the teacher learned how to allow youth culture and day-to-day literacies from home into the classroom as an accepted part of the process of inquiry. Ipeze argues that the changes the teacher made to invite students' out-of-school new literacies into this classroom constituted *culturally responsive* teaching (Ladson-Billings, 1995; Wlodkowski & Ginsberg, 1995). Appropriating this concept from its origin as response to values and attitudes based on students' ethnicity and race, she expands it to teachers' inclusion of youth culture and out-of-school literacies to create conditions for motivation, meaning making, and student competence. Whether this teacher continued these new pedagogies after the collaboration ended, though, is not known.

A planned collaboration on multimodal arts-based curriculum and assessment in an eleventh-grade classroom (McMaster, 2004) documented the careful negotiation between researcher and teacher to build trust and balance power relations. Case studies of focal students in the class revealed the strengths of their differing visual/spatial, musical/rhythmic, bodily/kinesthetic, and verbal/linguistic modes of understanding literature, evident in their digital video productions on *The Girl Who Loved Tom Gordon*. In the context of this English class which had to take the 6-hour graduation test in June, the teaching-inquiry collaboration was key to sustaining changes toward new multimodal literacies by the teacher and her students. Seeing and talking about the deep understanding exhibited by students, the teacher developed a strong belief in the value of *multimodal productions as authentic assessments*. Her students did very well on the state test, too, with all focal students choosing to write an essay about *The Girl Who Loved Tom Gordon*.

In 2005 the teacher and researcher continued their collaboration by presenting their work together at a national conference. The teacher also *took on other new roles*, as technology coordinator for a Writing Project site. In 2006 she presented in a university Teaching of Literature class with her new collaborator from a local college: her students and their pre-service teachers were blogging about the books on war they were reading in common (e.g., *The Things They Carried*) before they met face-to-face in Book Groups. The multimodality, the layers of collaboration, the new professional roles, the authentic social practices—everything seems to be in place for a continuing productive path for this new *innovator*.

Long-term, face-to-face collaboration can be very effective in promoting teachers' more rapid movement to new multimodal literacies in schools. But this is a time- and resource-intensive strategy. If "print literacy is not enough" for teachers and students in new times (Gee, 2003, p. 19), then teacher educators and others who seek school change need to create additional strategies for supporting teacher transformation. A digital video composing project in an urban school district coalesced elements of a collaborative approach with other promising teacher learning approaches reviewed here. In the next section, an overview of a growing body of work situated in this DV composing program examines both teacher learning and subsequent changes in student engagement, learning, and school performance.

Teacher Professional Development for Digital Video Composing

Over the past five years a school-based digital video composing program called City Voices, City Visions (CVCV) has provided professional development for urban teachers. There were many reasons for focusing on digital video composing. Two are important here.

First, digital video composing provides a potential solution to the problem of teachers' underusing affordances of new multimodal literacies: DV production requires integration of many modes--what some call "an integrative, combinatorial assemblage of modes" (Burnes & Parker, 2003, p. 59). In that sense, digital video is a quintessential multimodal literacy, integrating visual, aural, kinetic and verbal modes electronically—making it difficult to stay in the comfort zone of print-only texts as editing DV footage requires working with a visual and two audio tracks (often music and narration). Teachers need to engage in *design-based performances* so that they have the *embodied experience* of engaging in purposeful orchestration of modes to create meaning. Digital video composing provides that experience.

In addition, Cope & Kalantzis (2000) recommend situated (contextual) practice through immersion in experiences with designs of meaning that make "intuitive sense" to learners because they appear in realms outside of school (p. 244). Digital video composing is a high-status social and cultural practice with powerful attention-getting qualities and expert versions in the real world. The connection to youth media culture (music videos, movies, vlogs, clip culture¹) is strong, making it a high-interest endeavor that draws on student (explicit and implicit) out-of-school knowledge. Use of familiar media genres in DV composing creates another school connection to the mediasphere.

This section summarizes the research examining the impact on teacher and student learning of participation in a digital video composing program. First, an overview of the project in which this research was embedded.

Overview of an Urban-School Digital Video Composing Program

Through the City Voices, City Visions partnership between the University at Buffalo Graduate School of Education and the Buffalo Public Schools (BPS)², over 100 urban teachers³ have participated in CVCV Professional Development Institutes aimed at preparing subject-area teachers to use digital video composing as a new multimodal literacies tool for their sixth- to twelfth-grade urban students. Summer and Spring (Saturday) Institutes (for a total of twenty-eight hours) are taught by experienced CVCV teachers, who have helped develop and infuse genre-based digital video composing with their lived teaching experience in BPS classrooms. The CVCV university team⁴ collaborates with the lead BPS team in teaching and providing one-one-one support for teachers at the point of need.

Using the Internet, hand-sized digital video (DV) cameras, and movie editing software as creative research tools, teachers learn to make sequences of digital video projects in media genres familiar to them and to students: poetry videos (based on music videos); public service announcements, un-commercials (using a TV ad format to sell a concept—the First Amendment- Priceless); movie trailers ("coming soon to a science class near you"); and news-segment/interview TV shows (based on 20/20, 60 Minutes, E!True Hollywood or other news inquiries). During DV production/workshop time, new teacher cohorts work in subject-matter teams across schools or on in-school teams (same-subject or interdisciplinary).

The Institute instructors support teachers' inquiries into which units of study and subject-matter concepts pose difficulties for their students' learning, then assist with developing *usable curricular*

materials to solve their pedagogical problems by creating new multimodal literacies solutions. As teachers create assignments, evaluation rubrics, and sample videos for DV composing projects in their own classrooms, they consider how they will engage their students in design and production of digital video projects like the ones they are creating. These DV composing activities are aimed at helping teachers and then students in classrooms develop multimodal design strategies, which at the same time support student achievement of new higher-level state learning standards in English, social science, science, math, languages, and other school subjects.

Continued support for teacher participants occurs through the university team collaborators working side-by-side with teachers in regular school visits to classrooms. A project website provides a publication space for DV curriculum projects and products. Bi-monthly Reunions provide a forum with multiple purposes: teachers share their experiences of teaching with DV composing, their teaching materials, and their *students*' completed DV products; present successful DV composing activities, stories, strategies; and raise issues and questions with other City Voices, City Visions teachers. Research shows that teachers have been inspired by the examples and work of other teachers in the project (Blondell, 2006). Digital videos highlighting teachers explaining their practice and students-in-action in classroom DV workshops are also featured at Reunions and published on the project website. The aim is to literally *provide strong images of what is possible* in this urban school district and to help evolve a larger, supportive community of practice.

In all, this ongoing professional development is aimed at (1) providing teachers with multimodal design experiences in digital video composing as a means of understanding its power as a social practice and learning tool; (2) creating engaging, purposeful activities for student DV composing embedded in the curriculum; (3) developing strong pedagogical and design strategies for use at the point of need in classroom digital video composing; (4) creating a professional community to support teacher efforts to change; and (5) ultimately, prompting the cultural jump necessary for enacting changes in teaching and what counts as knowing/learning in classrooms.

It is important to note that the model for professional development in the CVCV program emerged over time through ongoing cycles of collaboration and reflection with all the partners. For example, the initial purpose for the university team visiting classrooms was to provide any needed technical support and

to document cycles of digital video composing. But when enthusiastic teachers from the Institute hit the realities of their urban classrooms, digital video composing diminished as a priority. Research (Borowicz 2003) revealed the essential need for in-school collaboration with individual teachers when they began trying to integrate digital video composing as a learning tool for students. These collaborations then became a planned and central part of the program.

Currently funded by the New York State Education Department, CVCV ultimately aims to foster achievement in urban schools and social futures (New London Group, 1996) by empowering students with new multimodal literacies. (See Miller & Borowicz, [2006] for a summary of the teacher and student learning documented in the program. Access the website at www.gse.buffalo.edu/org/cityvoices/).

Studies of Digital Video Composing in Classrooms

The research suggesting the power of youth digital video authoring has gone on largely outside of schools in community centers (e.g., Goodman, 2003; Hull, 2003; Hull & Nelson, 2005; Hull & James, in press). In school-based research, the CVCV university team and colleagues have examined the situated learning through DV composing in urban classrooms (Miller & Borowicz, 2005, 2006, in press; Blondell, 2006; Borowicz, 2005; Costello, 2006; Lauricella, 2006). Employing grounded theory, ethnographic, and case studies methods, these studies taken together provide evidence that DV composing can be a potent new literacy learning tool that leads to increased student engagement and achievement. Learning to use and to teach digital video composing can induce the changes in epistemology and social practice that promote changes in teachers' pedagogies and students' learning (Miller & Borowicz, 2006).

At the same time, teacher and school traditional beliefs about knowledge, teaching, and learning and constraints in urban schools create tensions. In this section, an overview of findings from these studies focuses on how these promises and challenges played out in schools. Three stories of classrooms will serve to illustrate the range of tensions and impacts. (To assure anonymity, pseudonyms are used throughout for the names of teachers, students, and school buildings.)

Multimodal composing as embodied learning—or not. DV composing often interrupted the limited print-only mode of schools. In her ethnographic case study of an eleventh-grade English class, Borowicz (2005) found that student engagement changed dramatically when the teacher introduced digital video composing. One focal student, Darrius, who was perceived in school as non-responsive and a troublemaker,

created a DV story in response to a novel to depict his vision of the importance of loyalty among friends, based on his own lived experiences. In an impressive change, he came to class early and often stayed late, sometimes giving up his lunch period, to work on his movie. He orchestrated a tragic scene, demonstrating to the actor her language and movements before filming, then edited the footage using quick cuts and dramatic music to amplify the shock He watched his movie over and over, sometimes talking to himself, sometimes singing along with the music he had imported, sometimes turning to a fellow student for assistance. On one occasion, he announced, "Man, I love this. I could stay here and work on this all day."

Much like the adolescent artists Heath (2004) studied, Darrius called this intensive work "fun," a stance Heath explains by the concept of "flow" (Csikzentmihalyi 1990), a state "when action and awareness merge, consciousness narrows to focus attention on what is most relevant for the role of participation one is intending" (Heath, 2004, p. 340) and time slips by ("class is over already?"). The shift in role and stance, like Heath's artists, seems to come from a similar focus on creation: "The arts encircle learning with meaning and thereby make comprehension and engagement fundamental for participation" (p. 339). For the first time in school Darrius felt what it was like "being connected in a social space with resources for expressive productivity" (Borowicz, 2005). This connectedness to tools, to peers, to the multimodal world outside is key to purposeful, embodied learning through all the senses (Gee, 2004).

However, this embodied meaning making was not teacher Nate Russel's main purpose for using digital video composing with his students. Nate felt that DV was a motivation that "forces kids to study." After students created a DV poetry interpretation, Nate abruptly turned to six weeks of rote test preparation--drill practice and recitation for the end-of-year state test. During these six weeks, student attendance in this class dropped dramatically. Those who came disengaged, adopting their familiar student tableaux of sitting perfectly still staring out the window (Borowicz, 2005).

Nate Russel, it seems clear, had not broadened his concept of literacy and knowledge, and did not feel an authentic purpose for new multimodal literacies. He did not see the fun of flow among his students as productive, just as a distraction from the necessary drudgery of regular school work. He felt responsible for bringing his students out of poverty by giving them what the school said they needed—passing scores on the graduation test. It is interesting to note that even when the teacher did not construct an authentic purpose for DV composing as a social practice, students like Darrius did. In this class and others, research

findings demonstrate that opportunities for students to make multimodal meaning of classroom content through the embodied experiences of digital video composing helps students move out of passivity, alienation, and powerlessness (Miller & Borowicz, 2005, 2006).

Wholeheartedness and Achievement. In her case study of two eighth-grade English classes taught by the same teacher, Costello (2006) found that integrating process drama with digital video composing in the classrooms "created opportunities for a synergy through which student interpretation thrived." During DV production, the classroom space changed as Dylan Bradley left his position at the front of the class and moved around the room to support student groups. In DV productions to dramatize vocabulary words, develop a newscast on a novel, and create a poetry interpretation, students deeply engaged with each other and grappled with ideas and meanings.

In the final Process Drama/Confessional DV, students in small groups enacted a new DV genre, representing each chapter from *The Outsiders* with a tableau, using body placement, gestures, and facial expressions to capture a significant aspect of the text. These students added a reality-show confessional, with students speaking in character, to construct motives, pose questions, and sound themes central to the printed text—in a social space for "wholehearted literature study."

What seemed to be "brilliant successes" in this class contrasted to the second class, which had "small moments of beauty." There was the moment when Mr. Bradley wanted students to write out their confessionals in "standard English," but asked them to perform, not read. Only Curtis understood and offered this translation to the class, "It's like you freestylin'." The class then got it, too: "Yeah! Freestylin'! Yeah, it's like a rap." Costello concludes, "Drawing on their implicit media and performance knowledge seemed to energize the activity for students like Curtis." This class read *Freak the Mighty* as the basis for their DV Confessionals, and it was there that the complex "challenges and tensions surrounding the integration of New Literacies" erupted.

The urban school context and the resulting co-construction of teacher and student identities undermined the innovative use of digital video composing in this class. Although Dylan Bradley wanted to engage students and help them "to overcome oppositional identity," at Neighborhood School, he focused mostly "on managing student behavior." The school was a "tight ship," with students in straight lines in hallways and straight rows in classrooms. In this culture of "rigid order," Dylan had warned the Freak the

Mighty class about not following directions: "not every class gets the privilege of participating in iMovie... and if you can't behave yourselves, I will cut off the project completely." In the middle of a class period in the middle of DV production, Dylan did stop the project due to a conflict with Curtis and another student, known in the school and teachers' lounge as "troublemakers" or "thugs." When faced with what he perceived as challenge, Dylan "defaulted to the discourse of the lunchroom—the identity of the exasperated disciplinarian."

It seems accurate that "Dylan's willingness to disrupt the traditional paradigm of teaching quiet students in straight rows with the student-centered, multimodal endeavor of digital video is admirable." At the same time, though, shutting down the project had academic consequences. The six focal students from The Outsiders Homeroom passed the end of year school district exam. The most challenging section was a "critical lens" essay, requiring students to interpret any piece of literature from the perspective of a supplied quotation. Analysis of those essays revealed that they all incorporated "either the pivotal moments in the story that they focused on for the DV project or the thematic issues explored." The two students in the Freak the Mighty Homeroom who finished their video on their own time also wrote about *Freak the Mighty* for that essay, whereas one focal student in that class who did not finish the DV did not pass the exam.

Students developed deep understanding of these texts from the digital video composing which provided support for their thinking in timed essays of academic writing. This finding argues against a dichotomy between new multimodal literacies and print academic literacies: the embodied experience of multimodal design "may be the basis for achievement on high stakes essay assessments about literature" (Costello, 2006).

Implications from this study include the need in teacher professional development to foreground potential tensions and politics in schools and professional strategies for working in those spaces. A vital implication is the need to explicitly support teachers' deep understanding of the positive influences of DV composing on interpretive strategies and reflective dispositions engendered by embodied learning.

Developing such understanding of how and what students learn in DV composing may help to work against notions that DV composing is a privilege for a special class and promote the idea that it is a "pedagogical necessity" to support achievement for all students.

DV composing as inquiry, voice, vision. In her ethnographic case study of an eleventh-grade social studies class, Lauricella (2006) traced events and developing ways of thinking as teacher Robert Williams provided students opportunities to use primary sources to investigate historical events and compose digital video products. Findings revealed that Mr. Williams enacted a stance toward history as an ongoing inquiry that needed to be open to new evidence. This consistent attitude toward historical knowledge as not fixed, but evolving, created a "felt need" for inquiry among his students. The authentic purpose for students to engage in digital video composing, then, was to make sense of their inquiries into multimodal historical texts and represent their historical analyses.

Williams' pedagogy reflected his stance on history: instead of linear chronology, he posed big questions and themes to get at underlying conceptual issues. Through supportive talk he helped students pose questions for their inquiries. Particularly when the inquiries surfaced student-initiated questions, students drew the world into the classroom through a variety of multimodal texts as they were impelled to find a solution to their perplexity (Dewey, 1933; Miller, 2003). When a DV project was in process, students worked in teams with cameras and computers as mediating tools, focused by the larger inquiry purpose of the class and the immediate purpose of creating a political commercial for a past election or a movie trailer on Jim Crow laws of the Reconstruction Era. Students interacted with each other around the content of textbooks and other curricular texts (posters, teacher-made materials), but also around the multimodal texts students generated through the camera and designed using movie editing software. Students turned to and taught each other, drawing on knowledge distributed among the team and from outside sources on the Internet. This "affinity space" (Gee, 2004) was a social space where students interacted face to face and learned while they pursued their common endeavor to design a digital video.

In all, Williams engaged students in "doing history" as collaborative inquiry through digital video composing. For example, Paige and Nicole designed their digital video *For Coloreds Only* through their inquiry into multimodal texts (e.g., newspaper accounts, advertisements, photographs, literacy tests, music, vernacular history from their community, enacted scenes), using historical skills to "read" them, and negotiate a story in the genre of a movie trailer set to Billie Holiday's singing of "Strange Fruit." At the screening, the class was stunned. As Lauricella (2006) concluded, "The orchestration of these multimodal

texts capture the auditory and visual senses and work to encompass a holistic understanding of lynching as a horrific event in America's history."

Robert Williams was pleased with his students' learning and achievement, including their performance on the end-of-year state graduation test. One of the assessments was a Document-Based Question (DBQ), which asked students to read primary historical documents (excerpts from speeches, essays, graphs, political cartoons, laws) related to an historical issue (e.g., Progressive Reform) and compose a well-argued essay. This *timed* inquiry required students to draw on these multimodal texts and their knowledge of U.S. history to compose an interpretation for an audience. This is the kind of thinking they had been doing all year as they composed digital videos related to the curriculum.

Lauricella (2006) heard about Williams' student pass rate from an administrator and then confirmed with Williams: for the previous five years his students had a "100% pass rate on the New York State U.S. History Regents Exam, the social studies graduation test for all students" (p. 112). In the year of the study, all of his more 130 students engaged in composing six digital videos passed this test, which only 73% passed in the rest of the school district. Lauricella concluded that through their embodied learning in these classes, students developed strategies for historical thinking and deeply appropriated historical knowledge, at the same time that they learned to "experience the world with an embedded understanding of what it means to be an active citizen" (p. 161).

Teacher Change: Implications from Research for New Multimodal Literacies in Schools

Taken together, these studies suggest, first of all, that digital video composing can provide rich opportunities for students to learn curricular concepts deeply as they draw on tacit knowledge of media, connect curriculum to their lives through embodied experience, learn multimodal design, and create new identities as designers and active learners. These impacts occurred even when teachers were not fully aware of them. Secondly, these studies provide evidence that integrating new media literacies and digital video composing in classrooms and schools is quite complex, but quite possible.

As Bransford, Darling-Hammond & LePage (2005) argue, the evidence base is small for how teacher learning influences what teachers do in classrooms and what their students learn--and even smaller for how teachers learn the practices that research shows make a difference for students (p. 23). To contribute to building a professional consensus through "evidence-based practice," the field of education

plainly needs more long-term studies of how teachers take up professional development experiences and enact them in classrooms. Looking across the case-studies of digital video composing in schools helps to illustrate trends in the studies and may contribute to a budding consensus on new literacies pedagogical practice.

A strong sense of integrative purpose. Teacher attention to constructing strong purposes for new multimodal literacies and digital video composing in their classrooms is essential. Robert Williams (Lauricella, 2006) and the other teacher *innovators* constructed social contexts and new multimodal literacy practices in their classrooms for strong, conscious purposes that supported their clear goals for teaching their subjects and their students. Robert consistently communicated the need for ongoing inquiry into multimodal media texts in order to understand historical and current issues and to become critical citizens of the 21st century. Carol Smith (Bailey, 2006) began by using new literacies only for student motivation, but through her supported reflection on how and what her students were learning, she developed a purposeful "New Literacies Stance," treating knowledge as composed from perspectives and learning as represented multimodally. (Both teachers' purposes are quite congruent with digital epistemologies.)

In the classrooms of teachers with such strong integrative purposes, compelling patterns of change emerged for classrooms and students. As students engaged in multimodal design, transformations for them emerged through joint purposeful endeavor or "affinity spaces," where designers drew on knowledge across people, tools, spaces (Gee, 2004; Bailey, 2006; Miller & Borowicz, 2006). Evidence reviewed here shows that students drew on social and cultural funds of knowledge that included youth media practices, home and peer language, vernacular history, and urban life experiences to connect to and make sense of curriculum from what they already knew. This interweaving of modes and knowledges for meaning making mediated student understanding of the school curriculum, and also served social and personal agendas of students, particularly those perceived to be struggling academically.

Student and school learning purposes coalesced in DV composing activities, providing almost total engagement in co-designing and embodied learning. Students' deep engagements and multimodal learnings also served them well as mediators and resources for more print-based reading and writing, for example, in passing high-stakes tests (Costello, 2006; Lauricella, 2006; McMaster, 2004), though students' performance went well beyond learning standards and passing tests.

In some classes, these patterns emerged *only* during DV composing. For example, the experience of Darrius in Nate Russel's class (Borowicz, 2005) showed the potential transformation over time that he and other students might have experienced with a more purposeful teacher stance toward new multimodal literacies. With collaborative support, Dylan Bradley (Costello, 2006) sustained a clear purpose for digital video composing--deeply understanding literature--in the Outsiders Homeroom, but not in his second class.

Teachers with conflicted purposes and low-level restrictive purposes for digital video composing at times succeeded and at times succumbed to inevitable tensions in schools: Dylan Bradley, to school norms of controlling student behavior; Nate Russel, to testing pressures and the rote learning perceived as needed for students to pass; Terry Martin, to her views of knowledge as authoritative content and teacher as expert. The irony in these instances is that teachers appeared to be cutting students off from embodied learning and new multimodal literacies because they were seen as distractions to learning or only hooks or privileges--when evidence is strong that these were the very means students needed to succeed. Ironic, too, was extensive teacher effort at quieting students for compliance--which cut teachers off from the funds of knowledge active students might bring to teacher/school goals of learning content (e.g., Curtis offering the youth genre of "freestylin" to explain performance in his class). Opening school learning to out-of-school literacies and popular multimodal texts can reposition students in school by redefining their competence (O'Brien, 2003), perhaps even providing Darrius and Curtis spaces for voices and visions for purpose and success in school.

The value of constructing deep integrative purposes for new multimodal literacies in classrooms can be enhanced by relating it to findings from research on impacts of arts involvement on youth (Heath & Smyth, 1999; Heath, 2004). In a ten-year study of 124 youth-based community organizations in poor communities, Heath described how sustained multimodal arts activities--including video production, visual arts, music, drama, and photography--served as "incubators" for purposeful meaning making, joint thinking/problem solving, risk/responsibility, and meaningful connection. Key elements of these programs included engaging youth as resources, producers, co-creators and mentors in the context of authentic, supported art activities. Participants learned the kinds of language necessary for creation of projects: joint planning, preparing, critiquing, and debriefing. As these youth developed future scenarios, explained, argued, provided strategies in teams, they developed socially and cognitively in profound ways.

These impacts through purposeful participation in arts affinity spaces resonate with some of the findings from the reviewed research on digital video composing, arguably an arts-inspired practice. In her study, Heath & Smyth (1999) found that the kinds of talking and designing in these multimodal learning environments "appeared to accelerate later language development of forms central to academic language and literacy" (p. 338). To the extent that digital video composing in classrooms similarly involves "coengagement in designing" (New London Group, 2000, P. 22) for motivating purposes, possibilities are raised for the importance of exploring long-term impacts on students. Like the multimodal arts production environments described by Heath & Smyth (1999), the purposeful affinity space experiences in DV workshops may develop in students the essential embodied strategies for "the collaborative work projects of the new economy" (p. 67).

Finally, the research in classrooms using DV composing suggest that the guiding purpose constructed by teachers for authentic new literacies in school cannot be for low-level comprehension and remembering, but in some way must be about designing multimodal texts to bring curriculum and youth culture/out-of-school literacies and experiences together. Blondell (2006) traced one facet of the conflict over purpose for DV composing in her interview study of CVCV English teachers. As teachers began to integrate digital video composing into their classes, they felt new identities as "innovators" and "non-traditional" and valued "the respect and interest they receive from students and teachers." At the same time, though, they were "conflicted about taking on this new role: handing over responsibility, choice, and aspects of design to students" (p. 18).

Possibly teachers with low-level goals for digital video composing faced this conflict. Perhaps they were in transition on their developmental trajectories. In either case, additional strategies are needed for assisting teachers like Terry Martin who had very similar supports as her successful colleague, but had not developed along the same path to integration. Trends in the research on professional development for new literacies provides some guidance.

Strategies from research for new literacies professional development. The reviewed research suggests that some of the teacher professional development strategies tried were effective: ongoing support for learning authentic new literacy practices; for creating curricular activities that meet subject learning standards; for creating knowledge about teaching in work group forums, like DV workshop; for creating

visions of teachers successful in classrooms (live and DV); and, where possible, for in-classroom collaboration on planning and inquiry to speed up the process of integration.

These strategies were not sufficient for all teachers, though. The following expansions of approaches for teacher professional development derived from the previous review of research on new literacies in classrooms, provide additional trends for successful teacher learning. Professional development in new multimodal literacies also needs to:

- Focus meta-reflective talk and metacognitive opportunities on critically examining and possibly expanding *beliefs* about teaching, learning, knowing, and literacy;
- Foreground the classroom-constructed *purposes* for integrating new multimodal literacies, not just procedural, logistical, and technological knowledge (e.g., Miller & Borowicz, 2006);
- Attend to and develop ways for teachers to describe what students are learning through new multimodal literacy design activities;
- Initiate *metacognitive talk* about the planning, thinking, and learning in teachers' own multimodal design activities, what Kist (2002) calls "metadialogues," to develop teachers' abilities to provide multimodal and pedagogical strategies at points of need for students in their classrooms (McVee et al., 2006; Miller & Borowicz, 2005, 2006);
- As in all effective preparation of teachers for a changing world (Darling-Hammod & Bransford (2005) provide *strong images* of good, committed teaching with new multimodal literacies; and
- Develop *collaborative inquiry* dispositions to help teachers deal professionally with the complexities of schools and the real-world messiness of all teaching.

Finally, the complexities of developing teachers as "adaptive experts" who can balance routine efficiency and innovation (Bransford, Derry, Berliner, Hammerness, 2005, p. 48) is daunting in teacher education and in school contexts. Building relationships between these contexts is another approach to initiating and sustaining change.

A research-based partnership strategy for teacher learning. In a state-wide grounded-theory study, Miller et al. (2003) developed a "promising systems leadership framework" for transforming teaching and teacher preparation through wise integration of new technologies. A key component is long-term partnerships between schools of education and public schools to provide opportunities to jointly create new contextualized knowledge and promising approaches in classrooms, then to share them with teachers, administrators, teacher educators, and pre-service teachers. In this way, for example, perceptions of new multimodal literacies and digital video composing as merely privileges or distractions to the business of schools can begin to be transformed by sharing research evidence showing how new literacies can function in classrooms as purposeful, academic learning tools.

Fundamental to substantive change through innovation, the framework suggests, are changes in materials (such a digital technologies), changes in teaching approaches (such as infusion of digital video

composing as a learning tool), and possible alteration of beliefs (e.g., assumptions about knowledge, teaching, literacies) (Fullan, 2001; Miller et al., 2003). Research linked to the City Voices, City Visions program suggests that the most serious need is creating new ways to prompt changes in teacher beliefs. To develop professional teachers who are reflective, knowledgeable inquirers, ongoing support of teacher learning across contexts may provide a productive approach.

Finally, the framework calls for change to be guided by "the need to make a positive difference in society" (Fullan, 2001; Miller et al., 2003). This "moral purpose" for the CVCV partnership and for the University at Buffalo faculty partnership in the New Literacies Group⁵ is transforming schools through new multimodal literacies to create purposeful classrooms where *all* students develop social futures and performance competence for 21st century life. Ipeze (2006) argues that integrating new multimodal literacies in schools constitutes *culturally responsive teaching* (Ladson-Billings 1995; Wlodkowski & Ginsberg, 1995), inasmuch as inclusion of youth culture and out-of-school literacies can create conditions for motivation, meaning making, and student competence. Such changes in student positioning and identity can lead to changes in students' school achievement. Educational scholarship on identity has a central tenet: "identities are crucial to learning" (Sfard & Prusak, 2005, p. 19); "learning is all about identity and identification" (Gee, 2004, p. 37). Evidence from CVCV classrooms suggest that these theories tended to hold true, not just for students, but for teachers as well.

As for the moral purpose for partnerships around new literacies, in particular, the goal of repositioning urban youth as competent and building their performance knowledge with new literacy practices is an issue of equity and social justice. In a recent review of research on and theories of New Literacies, Leu et al. (2004) warn of potentially severe consequences of ignoring these needs:

We believe that implementing a New Literacies Perspective in classrooms is essential if we hope to avoid societies in which economic advantage is sustained by the wealthy and denied to the poor.... Such a development presents fundamental challenges to any society that professes egalitarian ideals and equal opportunities for all its citizens. (pp. 1600/1601)

Unfortunately, underfunded urban schools have not often taken up needed transformations, but instead have been bound up by bureaucracy, lack of communication, and disrespect for teachers and students (Weiner, 2000). Ongoing partnerships with schools of education provide possibilities for introducing and supporting change.

In the City Voices, City Visions school-university partnership, developing contextual knowledge through collaboration remains central to working towards change. Pre-service (PST) teachers at the university now take a new multimodal literacies course focusing on digital video composing, and it is cotaught with BPS teachers (Miller & Borowicz, 2005). Those PSTs are then paired for student teaching with CVCV teachers in the schools (Huber, 2006). CVCV teachers from the schools have become master's students at the university who engage in master's inquiries on their students' DV learning in their classrooms (Malley, 2004). PSTs have graduated, become BPS teachers, and joined the CVCV project. And university doctoral students partner with CVCV teachers to conduct collaborative research in their classrooms. In this ferment of activity, some of the collaboration is planned; some is serendipity, but all opportunities induce collaborative reflection on beliefs, materials, and approaches, and form seeds of change.

Conclusion: Teachers First

A startling consensus about the need for schools to integrate advanced technology-afforded multimodal literacy practices has emerged across diverse groups with varying agendas. The perspectives of business/workplace interests (SCANS, 1991), Department of Education assessments (1999), and unique partnerships of education, business and government leaders (Partnership for 21st Century Skills, 2006) converge with New Multimodal Literacies scholars and researchers: students urgently need opportunities in schools to develop new literacies, performance knowledge, and multimodal learning strategies required for new times and social futures.

To this end, teacher learning needs to be highlighted as part of the New Literacies school reform agenda. Institutions of old learning have shaped and continue to shape teachers in an era of high stakes accountability to print texts. Simply urging teachers to change their shaping beliefs about knowing or requiring them to infuse technology in classrooms is undoubtedly inadequate. Teachers need ongoing high-quality professional development activities to help them transform their beliefs about the purposes for schooling, learning, and literacy and to become reflective insiders to the new multimodal literacy practices necessary for new times.

The quintessential multimodality of digital video composing provides an entry point for developing new multimodal literacy practices for teachers and students, with the potential to develop the

needed performance knowledge, design abilities, and social and cognitive strategies needed for 21st century literacies. Along the way, it has the potential to transform what goes on in schools.

References

- Albers, P. (2006). Imagining possibilities in multimodal curriculum design. *English Education*, 38(2), 75-101.
- Alvermann, D. E. (2002). (Ed.) Adolescents and Literacies in Digital World. New York: Peter Lang.
- Apple Classroom of Tomorrow (ACOT). (1995). Changing the conversation about teaching, learning & technology: A report of 10 years of ACOT research. Cupertino, CA: Apple Computer. Retrieved May 16, 2006, from http://images.apple.com/edu/education/k12/leadership/acot/pdf/10yr.pdf
- Apple Education. (2004). The evolution of thought and practice. Technology planning guide:

 Professional development. Retrieved May 14, 2006, from

 www.apple.com/education/planning/profdev/index4.html
- Anyon, Jean (1997). Ghetto schooling. Teachers College Press: Teachers College, Columbia University.
- Bailey, N. (2006). *Designing Social Futures: Adolescent literacy in and for new Times*.

 Unpublished doctoral dissertation, University at Buffalo (State University of New York).
- Blondell, M. (2006). *Teachers' perceptions of DV composing in English classrooms: Blurring boundaries* for understanding lives and curriculum. Unpublished manuscript, University at Buffalo.
- Bloome, D. (1986). Building literacy and classroom community. *Theory into Practice*, 25(2), 71-76.
- Borowicz, S. (2003). *Poetry in motion: Collaborative inquiry into digital video authoring in an urban school.* Unpublished manuscript, University at Buffalo (State University of New York).
- Borowicz, S. (2005). Embracing lives through the video lens: An exploration of literacy teaching and learning with digital video technology in an urban secondary English classroom. Unpublished doctoral dissertation,

 University at Buffalo.
- Brand, G. A. (1997). What research says: Training teachers for using technology. *Journal of Staff Development*, 19(1), 10-13. Retrieved May 20, 2006, from http://www.nsdc.org/library/jsd/brand191.html

- Brandsford, J., Darling-Hammond, L. & LePage, P. (2005). Introduction. In L. Darling-Hammond & J.

 Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do*. Jossey-Bass.
- Bransford, J., Derry, S., Berliner, D., Hammerness, K. with Beckett, K. L. (2005). Theories of learning and their roles in teaching. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do.* Jossey-Bass.
- Buckingham, D. (2003). Digital literacies: Media education and new media technologies. In Duncan, B. & Tyner, K. (Eds.), *Visions/Revisions: Moving forward with media education*. National Telemedia Council.
- Burnes, A. & Parker, D. (2003). Tiger's big plan: multimodality and the moving image. In C. Jewitt & G. Kress (Eds.), *Multimodal Literacy*. New York: Peter Lang.
- Chandler-Olcott, K. & Mahar, D. (2003). Adolescents' *anime*-inspired "fanfictions": An exploration of multiliteracies. *Journal of Adolescent & Adult Literacy*, 46(7), 556-566.
- Coiro, J. (2005). Every teacher a Miss Rumphius: Empowering teachers with effective professional development. In R.A. Karchmer, M.H. Mallette, J. Kara-Soteriou, D.J. Leu. (Eds.),

 Integrating approaches to literacy education: Using the internet to support new literacies
 (pp.199-219). Newark, DE: International Reading Association. Retrieved on May 15, 2006, at
 http://ctell1.uconn.edu/coiro/missrumphius.pdf.
- Cope, B., & Kalantzis, M. (2000). Multiliteracies: The beginning of an idea. In B. Cope & M.Kalantzis (Eds.), Multiliteracies: Literacy learning and the design of social futures (pp. 3-8).London: Routledge.
- Costello, A. (2006). Digital video and drama production as literacy learning tools in English classrooms. Unpublished doctoral dissertation, University at Buffalo (State University of New York).
- Csikzentmihalyi, M. (1990). Flow: The psychology of optimal experiences. New York: Harper & Row.
- Darling-Hammond, L. & Bransford, J. (Eds.) (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* Jossey-Bass.
- Dewey, J. (1933). How we think. Lexington, Massachusetts: D.C. Heath and Company.

- DiSessa, A. A. (2000). *Changing minds: Computers, learning, and literacy*. Cambridge, Ma: MIT Press.
- Finn, P. (1999). Literacy with an attitude: Educating working class students in their own self-interest. Albany: SUNY Press.
- Fullan, M (2001). The new meaning of educational change (3rd ed.). New York: Teachers College Press.
- Gee, J. (2003). What video games have to teach us about learning and literacy. New York: Palgrave Macmillan.
- Gee, J.P. (2004). Situated language and learning: A critique of traditional schooling. New York:

 Routledge.
- Goodman, S. (2003). *Teaching youth media: A Critical Guide to Literacy, Video Production*. New York: Teachers College Press.
- Grabill, J.T. & Hicks, T. (2005, July). Multiliteracies meet methods: The case for digital writing in English education, *English Education*, *37*(4), pp. 301-311.
- Hagood, M. C., Stevens, L. P. & Reinking, D. (2002). What do THEY have to teach US? Talkin' 'cross generations! In D.E. Alvermann (Ed.), *Adolescents and Literacies in Digital World*. New York: Peter Lang.
- Heath, S.B. (2004). Learning language and strategic thinking through the arts. *Reading Research Quarterly*, 39(3), 338-342.
- Heath, S.B. & Smyth, L. (1999). *ArtShow: Youth and Community Development*. Washington D.C.: Partners for Livable Communities.
- Huber, G. (2006). *Popular culture in student digital video production*. Unpublished Reflective Inquiry Project, University at Buffalo.
- Hull, G. (2003). Youth culture and digital media: New literacies for new times. Research in the Teaching of English, 38(2), pp. 229-233.
- Hull, G.A. & Nelson, M.E. (2005) Locating the semiotic power of multimodality. Written Communication, Vol. 22, No. 2, 224-261.

- Hull, G.A. & James, M.A. (In Press). Geographies of Hope: A Study of Urban Landscapes, DigitalMedia, and Children's Representations of Place. In P. O'Neill (Ed.), *Blurring Boundaries:*Developing Writers, Researchers and Teachers. Cresskill, NJ: Hampton Press.
- Ikpeze, C. (2006). Bringing together the bits: Web-based literacy learning in a fifth-grade classroom. Unpublished doctoral dissertation, University at Buffalo (State University of New York).
- International Reading Association. (2001). Integrating literacy and technology in the curriculum: A position statement. Retrieved May 12, 2006, from www.reading.org/resources/issues/positions-technology.html
- Jewitt, C. & Kress, G. (2003) (Eds.) Multimodal Literacy. New York: Peter Lang.
- King, J. R. & O'Brien, D.G. (2002). Adolescents' multiliteracies and their teachers' needs to know:
 Toward a digital détente. In D.E. Alvermann (Ed.), Adolescents and literacies in a digital world
 (pp. 40-50). New York: Peter Lang.
- Kist, W. (2002). Finding "new literacy" in action: An interdisciplinary high school western civilization class. *Journal of Adolescent & Adult Literacy*, 45(5), 368-377.
- Koehler, M. J. & Mishra, P. (2005). Teachers learning technology by design. *Journal of Computing in Teacher Education*, 21(3), 94-102.
- Kress, G. (1999). "English" at the crossroads: Rethinking curricula of communication in the context of the turn to the visual. In G. E. Hawisher & C. L. Selfe (Eds.), *Passions, pedagogies & 21st century technologies*. Urbana-Champaign, IL: NCTE
- Kress, G. (2000). Multimodality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 182-202). London: Routledge.
- Kress, G. (2003). Literacy in the New Media Age. New York: Routledge
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), pp. 465-491
- Lankshear, C. & Knobel, M. (2003). New Literacies: Changing knowledge and classroom learning. Philadelphia, PA: Open University Press.

- Lauricella, A.M. (2006). Digital video production as a tool for learning: Exploring multiple text documents in an urban social studies classroom. Unpublished doctoral dissertation,

 University at Buffalo (State University of New York).
- Leu, Jr., D. J. (2002). The New Literacies: Research on reading instruction with the Internet. In A. E. Farstrup, & S. Samuels (Eds.), *What Research Has to Say About Reading Instruction (pp. 310-336*). Newark, DE: International Reading Association.
- Leu, Jr., D. J., Kinzer, C. K., Coiro, J., & Cammack, D. W. (2004). Toward a Theory of New Literacies Emerging From the Internet and Other Information and Communication Technologies. In R. B. Ruddell, & N. J. Unrau (Eds.), *Theoretical Models and Processes of Reading (pp. 1570-1613*). Newark, DE: International Reading Association
- Luke, A. (2002). What happens to literacies old and new when they're turned into policy. In D.
 Alvermann (Ed.), Adolescents and Literacies in Digital World (pp. 186-203). New York: Peter Lang.
- Malley, J. (2004). *Pitch it to me: The role of talk and inquiry in the iMovie classroom*. Unpublished manuscript, University at Buffalo.
- McMaster, R. (2004). Collaborating for curricular change: Arts-based authentic assessments in the English classroom. Unpublished doctoral dissertation, University at Buffalo (State University of New York).
- McVee, M. B., Bailey, N., & Shanahan, L. (2006, February). Literacy teachers and the (Artful) deception of technology integration. A paper presented at the 27th Annual Ethnography in Education Research Forum. Philadelphia, PA.
- Miliken Exchange on Education Technology (1999). Will new teachers be prepared to teach in a digital age? Retrieved May 14, 2006, from http://www.mff.org/publications/publications.taf?page=154
- Mishra, P., & Koehler, M. J. (2004). Technological pedagogical content knowledge: A new framework for teacher knowledge. Retrieved May 1, 2006, from http://punya.educ.msu.edu/PunyaWeb/publications/inpress/MishraKoehler_TPCK.pdf

- Miller, S.M. (2003). How literature discussion shapes thinking: Teaching/learning habits of the heart and mind. In A. Kozulin, V. Ageyev, S. Miller, B. Gindis. (Eds.), Vygotsky's educational theory in cultural context (pp. 289-316). Cambridge, England: Cambridge University Press.
- Miller, S.M. & Borowicz, S. (In press). New literacies with an attitude: Transformative teacher education through digital video learning tools. In Finn, M. & Finn, P. (Eds.), *Teacher education with an attitude*. Albany, NY: State University of New York Press.
- Miller, S.M. & Borowicz, S. (2006). Why multimodal literacies? Designing digital bridges to 21st century teaching and learning. GSE Publications & SUNY Press.
- Miller, S.M. & Borowicz, S. (2005). City Voices, City Visions: Digital video as literacy/learning supertool in urban classrooms. In L. Johnson, M. Finn & R. Lewis (Eds.) *Urban Education with an attitude*. Albany, NY: State University of New York Press.
- Miller, S., Meier, E., Payne-Bourcy, L., Shablak, S., Newman, D. L., Wan, T. Y., Casler, E. & Pack, G. (2003, October 20). Technology as a Catalyst for Change: A Leadership Model for Transforming Urban Teacher Preparation. *The International Electronic Journal for Leadership in Learning*. Volume 7, Number 12. Available online at http://www.ucalgary.ca/~iejll/volume7/miller.htm (ISSN 1206-9620).
- National Council of Teachers of English (2003). NCTE position statement: On composing with nonprint media. Retrieved May 10, 2006, from http://www.ncte.org/about/over/positions/category/media/114919.htm
- New London Group (2000). A pedagogy of multiliteracies: Designing social futures. In B. Cope and M. Kalantzis (Eds.), Multiliteracies: Literacy learning and the design of social futures. London: Routledge.
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66, 60-92.
- O'Brien, D.G. (2003). Juxtaposing Traditional and Intermedial Literacies to Redefine the Competence of Struggling Adolescents. *Reading Online*. Available at http://www.readingonline.org/newliteracies/obrien2/

- O'Brien, D. G., & Bauer, E. B. (2005). New Literacies and the institution of old learning. *Reading Research Quarterly*, 40(1), 120-131.
- Partnership for 21st Century Skills (2006). *Results that matter: 21st century skills and high school reform*.

 Retrieved May 20, 2006, at http://www.21stcenturyskills.org/documents/RTM2006.pdf
- The Secretary's Commission on Achieving Necessary Skills (1991). What work requires of schools:

 *A SCANS report for America 2000. Washington, DC: U.S. Department of labor. Available:

 http://wdr.doleta.gov/opr/fulltext/document.cfm?docn=6140
- Sfard, A. & Prusak, A. (2005, May). Telling identities: In search of an analytic tool for investigating learning as a culturally shaped activity. *Educational Researcher*, 34(4), 14-22.
- Shanahan, L.E. (2006). Reading and writing multimodal texts through information and communication technologies.

 Unpublished doctoral dissertation, University at Buffalo (State University of New York).
- Street, B.V. (1995). Social literacies: Critical approaches to literacy in development, ethnography and education. London: Longman.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15*(2), 4-14.
- Swenson, J., Rozema, R., Young, C. A., McGrail, E., & Whitin, P. (2006). Extending the conversation: New technologies, New Literacies, and English education, *English Education 38*(4), 349-367.
- Thompson, M. (2005). *Slut, warrior, princess: Three gender identities in one students' fan-fiction writing.*Unpublished manuscript, University at Buffalo.
- U.S. Census Bureau (2004). *State and county quick-facts*. Retrieved June 5, 2006, from http://quickfacts.census.gov/qfd/states/36/3611000.html
- U.S. Department of Education. (1999). *Getting America's students ready for the 21st century: Meeting the technology literacy challenge*. Retrieved May 12, 2006, from http://www.ed.gov/about/offices/list/os/technology/plan/national/index.html
- Weiner, L. (2000). Research in the 90s: Implications for urban teacher preparation. *Review of Education Research*, 70(3), 369-406.
- Wlodkowski, R.J. & Ginsberg, M.B. (1995). A framework for culturally responsive teaching. *Educational Leadership*, 53(1), 17-21.

¹ Clip culture refers to an emergent new literacy, "an internet activity of sharing and viewing a short video." It was made possible by broadband networks, but has boomed since 2005 when websites for uploading clips emerged on the market, including youtube, Google Video, MSN Video. Sources for clips include news, movies, music video and amateur video shot with DV, digital cameras, webcams and mobile phones. (Adapted from http://en.wikipedia.org/wiki/Clip_culture.)

² The Buffalo Public Schools system has 70 schools which serve predominantly high-poverty communities. Seventy-four percent (74%) of Buffalo Public School students are eligible for free or reduced-priced lunch (compared to 38% of students statewide). Once a thriving industrial city, a stop on the Erie Canal, Buffalo slipped into economic decline in recent decades as the steel mills and aircraft manufacturers closed. The median household income is \$28, 544, a little over half of the state median (U.S. Census Bureau, 2004). According to their NYS District Report Card (2003), the multiethnic community is reflected in the school population of 41,600 students with a Black majority, both African Americans and African immigrants (57%); with Whites of western European origin—especially German, Irish, Polish (26.9%); Hispanic (12.4%); and American Indian, Alaskan, Asian, or Pacific Islander (2.7%). Students for whom English is a second language comprise 6.4% of the district.

³ Sixty percent of the CVCV teachers are in middle grades. Sixty percent teach English and social studies; the rest teach special education, science, languages, arts, ESL, and math. One-third of the teachers are male, and one-fourth are African American and Latino. Teaching experience ranges from 2 years to over 20 years.

⁴Miller, as CVCV Director, and two CVCV graduate associates--in 2006 Monica Blondell and Jonathan Federick. Previous associates included Suzanne Borowicz, Gary Huber, and Kara Olidge.

⁵ The New Literacies Group (NLG) at the University at Buffalo is committed to preparing teachers, researchers, and future professors in theoretical, empirical, and practical understandings of why and how to access students' rich funds of knowledge developed outside of school as multimodal tools for mediating in-school learning.