

Teaching and Learning in 21st Century School Libraries: What Works? Carol A. Gordon

Introduction

It is my pleasure to be in Bogata and at Colegia Nogales to talk about school libraries and how they can best work in schools. It is especially meaningful to me to be in Columbia, the homeland of Gabriel Garcia Marquez, and so it is fitting that we use his work as a springboard to understanding the complexity of teaching and learning in the 21st century. In the mid-1960's Garcia Marquez was little known outside his native Colombia, having never sold more than 700 copies of a book. Everything changed when, at the age of 39, he experienced a flash of inspiration while driving his family through Mexico. In a split second he understood how he could tell the story of his imaginary village, Macondo. He would pull together his grandmother's superstitions and stories, and his grandfather's passion for social justice in a genre that came to be known as magical realism. He would use the storytelling style of his grandmother who could tell extraordinary mystical stories with a face of stone, as if she was talking about the weather. Within 18 months he sent a hefty tome of 1300 pages to the publishers. The result was *Cien anos de soledad*. In this Nobel-prize winning novel we find a metaphor for the way our world is changing through technology.

The story of One Hundred Years of Solitude takes place in the isolated town of Macondo founded by the Buendia family. For years the town had no contact with the outside world, except for gypsies who occasionally visited, peddling technologies such as ice and telescopes. The patriarch of the family, José Arcadio Buendía, is impulsive and inquisitive. He is a leader who, like Macondo itself, is deeply solitary and isolated, alienated from other men by his obsessive investigations into mysterious matters. His sons represent the new order of things. The older son inherits his father's physical strength and impetuosity. The younger son inherits his intense, enigmatic focus. As the power shifts from father to sons, Macondo loses its innocent, solitary state as it establishes contact with other towns in the region. Civil wars begin, bringing violence and death as peaceful Macondo changes from an idyllic, magical, and sheltered place to a town irrevocably connected to the outside world.

Like Macondo, our global village has been irrevocably transformed. Digitized communication has stripped away hundreds of years of "solitude." Virtual space has given rise to a new generation that is not unlike the intense, impetuous and enigmatic sons of Buendia. This new generation lives in a borderless cyberspace where they invent and re-invent a pop culture with Web 2.0 tools: emails, blogs, and wikis, a myspace.com communal of adolescents, interactive video games, and a virtual real estate boom that offers the chance to act out creative musings in a second life. Every morning this new generation are exiled from their virtual homeland to go to a school very much like the one you attended, where they go back to 20th Century communication tools: chalkboards, DVD's, and first generation web sites. Needless to say, they are reluctant refugees.

The Culture of the 21st Century Learner

The die is cast: We are in the midst of a cultural revolution that represents much more than a shift from pencil and paper to computer and the computer is not just a tool; It is a

new communication medium and it is changing what we say and how we say it. In the virtual community of social networking, a new culture is emerging, unlike the old order of the struggling writer, in which anyone can become an author and, with relative ease, reach an audience of millions in seconds. National cultures fade into the background as the bright lights of a seductive and flashy pop culture brings people who have never heard each other's voices together to form more friendships than could be made in a Macondian lifetime. New media genres are emerging in a re-mix culture where pop meets classical. The youth that populates virtual communities is inventing new genres such as You Tube and gaming. In this participatory culture young people are not passive bystanders. Instead they are assuming authorship and starring roles: they are taking charge of the conversation. They are finding new outlets for their creativity that go way beyond the walls of a classroom. At the Massachusetts Institute of Technology this new culture is taken seriously as researchers study gaming as a medium for learning. Cyberspace is the new classroom and digital literacy is the new curriculum.

Digitization of the word is creating a new parallel world that is not only changing the way we express our values and our beliefs; it is changing our values and beliefs. As we shift from paper to web site it is clear that the medium is the message. (McLuhan, 2003) as common practice goes against the grain of traditional values. For a net generation that has to endure internet filters and blocked web sites, censorship is a way of life and violations of intellectual freedom are inconveniences. Copyright laws are irritating rules to a generation that has downloaded music illegally for almost all their lives. Nor are privacy and confidentiality core values for a generation that enthusiastically publishes personal, private information and images on the web. Citation and attribution give way to cutting and pasting as young people not only get away with plagiarism, but are rewarded for it with better grades than their honest classmates. "In a CNN interview about cheating in school a secondary student said, "The better grades you have, the better *school* you get into, the better you're going to do in life. And if you learn to cut corners to do that, you're going to be saving yourself time and energy. In the real world, that's what's going on. The better you do, that's what shows. It's not how moral you were in getting there." (High School Senior interviewed by CNN, *Eye on cheaters*, 2004). How do we educate this new generation?

The Culture of Teaching

New digital technologies will not only continue to transform the culture of the learner, they deeply affect teachers and, of course, school librarians. Digital technologies increase the need for collaboration. Technology not only complicates schooling; it increasingly provides a means for new and different collaborations. Technology will enable teachers and administrators from around the country and the world to share strategies and tools in ways that will dramatically increase the number of collaborative links for educators. Technology will also increase the need for educators to collaborate locally in their schools to support each other by sharing their expertise.

The story of collaboration among educators has not always had a happy ending. Teacher collaboration is a departure from existing norms. Research studies on the culture of schools and teaching consistently indicate that the autonomy of the teacher is grounded in

norms of privacy and non-interference.” (Inger, 1993). Throughout the development of the instructional role of the school library there has been a persistent disconnect with what is happening in classrooms. This gap is driven by a 19th and 20th century culture of classroom teaching that is teacher and textbook centered while the school library has moved on to a more 21st century-friendly pedagogy that is learner-centered, and resource and inquiry-based. Classroom teachers are the gatekeepers who monitor the school librarian’s access to students. It is critical that school librarians understand the culture of teaching to better understand how to connect the classroom to the school library.

Lortie (1975) conducted the first sociological study of teaching. He interviewed a stratified sample of primary and secondary school teachers in the greater Boston, Massachusetts area, and collected questionnaires from almost 6,000 teachers in Dade County, Florida. The study concluded that, “The cellular organization of schools means that teachers struggle with their own problems and anxieties privately, spending most of their time physically part from their colleagues” (Fullan, 1991, p. 119). They focus on classroom, not school. They care more about having preparation time, more teaching time, counseling students, and parent conferences and they perform these individualistic tasks alone. The immediate imperatives that drive teachers’ interaction with students are maintaining discipline and determining assessments and decisions about student progress. They strive to reach students: they feel they are expected to perceive and act on the needs of individual learners. Teachers see themselves as actors: they must overcome distractions and mobilize the attention of initially uninvolved audiences. They know that without full attention learning is not likely to take place. They are onstage and feel the pressures of performance every day. (Lortie, 1975).

Teachers are consoled in their isolation when they talk about the “good day.” A good day is when they work hard and succeed in stimulating students. On a good day they feel they finish their work plans and see results. They describe students’ contributions on a good day as responding and cooperating, behaving themselves, demonstrating positive feelings, showing interest and giving full attention, wanting to learn, being in a good mood, being enthusiastic, working hard, obeying rules and enjoying classes. Teachers believe that a good day requires more than boundaries: it depends on the mood of the teacher and students. A good day happens only when both students and teacher are in the appropriate frame of mind. Sometimes mood depends on health or environmental changes, the time of year, the weather. Some say mood originates with the interaction between teacher and students when they positively reinforce each other (Lortie, 1975). Teachers also talk about the psychic rewards of teaching. They want to go beyond the curriculum to add something personal to their responsibilities. There extras include:

1. Moral aspects of teaching.
Desirable moral outcomes emphasize students’ compliance and obedience .
2. The connecting function of the teacher who instills love of school or a particular subject.

Connecting compliance with classroom norms to future citizenship authenticates the teacher’s control efforts. Teachers see this compliance as preparation for citizenship. They see school as doing work the family and promoting middle class values for children from disadvantaged socio-economic backgrounds. Connecting children to school and

learning is not strictly cognitive in nature. They find the prospect of inducing positive attitudes among students toward school or learning as exciting. They want to make students think on their own and be independent but they think it takes a teacher to stimulate intellectual curiosity and interest in school.

3. The theme of inclusiveness in teachers' views emerges from their belief that they must reach and teach all students in their charge.

They have strong convictions about equity and the benefits of schooling. Their greatest satisfaction is derived from success with a single student. (Lortie, 1975). Teachers describe an outstanding teacher in terms of learning outcomes, or instructional results, as well as interpersonal transactions. They value the states that teachers realize with their students: affection, respect, hard work. Teachers judge their peers by how they handle their relationships with students. Although teachers like boundedness, they see displays, assemblies, science fairs, exhibitions, field trips, panel presentations as ways to dramatize teachers' achievements through competition of student work (Lortie, 1975). Teachers see their work as up and down: the flow of accomplishments and rewards is erratic. Positive events are linked to two sets of people: teachers and students. When they seek help, it is usually from another classroom teacher. All other persons, without exception, are connected with undesirable occurrences. They tend to make negative comments about all other school personnel, in fact, about anyone who intrudes on classroom events. Teachers attach great meaning to the boundaries that separate their classroom from the rest of the school and the community. Walls are perceived as beneficial because they enhance and protect the course of instruction (Lortie, 1975). These findings are contrary to a school library friendly culture of collaboration.

How do teachers deal with change? Teachers do not see themselves as change agents. When they are given opportunities for more time for classroom-related activities they select preparation, teaching and counseling time. (Lortie, 1975). Change attempts fail more often than they succeed in schools because change is not considered a process and is not personalized by teachers (Hall & Hord, 1987). Teachers assess the value of change by asking the following questions.

1. Does the change potentially address a student need?
2. How clear is the change in terms of what the teacher will have to do?
3. How will it affect the teacher personally in terms of time, energy, new skill, sense of excitement and competence, and interference with existing priorities?
4. How rewarding will the experience be in terms of interaction with peers and others?

These findings are important because school libraries are still in various stages of innovation. Rarely are they entirely institutionalized and integrated to the same degree as the classroom and they have yet to reach their potential in teaching and learning. To do so would require changing the culture of teaching and the culture of schooling.

What Works? Creating a Common Technical Culture

“Educational change depends on what teachers do and think-it's as simple and as complex as that. It would all be so easy if we could legislate changes in thinking” Sarason (1971, p. 193). Since we can't legislate, we must educate. “Teacher training does not equip teachers for the realities of the classroom” (Fullan, 1991, p. 119) and certainly

does not train them for the realities of working with school librarians. Partly because of the physical isolation, and partly because of norms of not sharing, observing, and discussing each other's work, teachers do not develop a common technical culture" (Fullan, 1991, p. 119). A technical culture exists in the workplace when there is consensus about the goals, the tools, and the methods that are integrated into every day work. Classroom teachers and specialists, such as school librarians and technologists, share their expertise in a spirit of learning from each other in order to improve the quality of their teaching.

The need for a common technical culture of teaching in a highly digitized society presents an opportunity for school librarians to guide teachers in the creation of a technical culture that serves the needs of 21st century learners. What would such a technical culture look like? How would it accommodate the culture of teaching as we know it, so that teachers would be willing to open their classroom doors?

Constructivism

The foundation of such a technical culture would be a constructivist theory of learning that posits that learners construct their own meaning from information, based on their prior knowledge and experience. Learning is social and holistic: it involves not only the cognitive, but affective and behavioral domains. This approach supports teachers' concern for the success of the single students and the importance of reaching students and accommodating their learning. However, it puts the students on center stage to perform and the teacher in the role of drama coach instead of star of the show.

Inquiry Learning

A 21st century culture would be learner-centered, building on the engagement, curiosity, and interests of young people. Inquiry learning satisfies teacher's need to stimulate students and help them to think on their own. It offers teachers opportunities to instill a love for their subject by helping their students discover the essential questions of an academic discipline and the ways of knowing, or the methods of inquiry that are unique to each discipline. This means going beyond a generic definition of information literacy to probe more deeply into the inquiry methods of historians, scientists, mathematicians, writers, and artists.

Information Search Process

The framework for this technical culture would be the Information Search Process, a research-based model that predicts the thoughts, feelings and actions of learners as they interact with information to build new knowledge or extend existing knowledge. Through six predictable stages the educator can offer interventions that support the steady progression of the learner from Task Initiation to Presentation. The ISP tool enables teachers to experience the psychic rewards of teaching when their students "get it." It ensures that students will be helped through the process of information searching so that they reach can successfully complete their learning tasks, working hard and building interest and enthusiasm and the "good mood" that teachers identify as critical to the "good day." The ISP is a teaching tool that enables the teacher to reach a single student

who needs extra support.

Guided Inquiry. The building blocks of a common technical culture would be Guided Inquiry, or the carefully planned, closely supervised targeted intervention of an instructional team of school librarians and teachers to guide students through curriculum based inquiry units that gradually lead towards independent learning. Interventions, or learning activities that support student inquiry, are designed to address anticipated and realized problems in the various stages of the Information Search Process. This approach guarantees that the learner will not be abandoned in the process of becoming independent learners. Guided Inquiry addresses the teacher's concept of the "good day" whereby there are interpersonal transactions between teacher and learner and student and teacher positively reinforce each other.

SStandards for 21st Century Learners.

The newly published standards from the American Association of School Librarians (<http://www.ala.org/ala/aasl/aaslproftools/learningstandards/standards.cfm>) goes beyond information literacy standards that address the searching, retrieving, evaluating of information to the use of information. Learners use skills, resources, and tools to:

- inquire, think critically, and gain knowledge;
- draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge;
- share knowledge and participate ethically and productively as members of our democratic society;
- pursue personal and aesthetic growth

These standards offer teachers the chance to address their concerns about equity and morality as students learn how to manage information and achieve higher order thinking.

Bloom's Taxonomy of Critical Thinking Skills

Critical thinking skills strengthen the new standards to add academic rigor. Learners go beyond remembering and understanding knowledge to applying, analyzing, and evaluating knowledge and creating new products that demonstrate their knowledge. Teachers meet their need to communicate their passion for their subject area to their students as they challenge them to work hard.

Authentic Learning Tasks and Assessments.

A common technical culture supports students as they step out of their artificial roles as students to think like historians, mathematicians, scientists, writers, and artists and use the tools of the experts to solve problems. Do we want to evaluate student problem-solving in visual arts? Experimental research in science? Speaking, listening and facilitating a discussion? Doing document-based historical inquiry? Thoroughly reviewing a piece of imaginative writing until it works for the reader? Then let our assessment be built out of such exemplary intellectual challenges (Wiggins, 1992). Instead of relying solely on secondary sources, such as an encyclopedia to find out about birds, young children become ornithologists as they observe birds through their

binoculars and keep journals of their observations. The learning tasks are the assessments as student receive continuous feedback about their progress. This methodology offers teachers the chance to stimulate curiosity and to create the “good day” in terms of learning outcomes. Assessment is re-defined for teachers who are relieved of the burden of being the sole assessors of student work as student engage in peer and self-assessment. Learning outcomes are summatively assessed through exhibitions, fairs, and displays that teachers like to engage with as they dramatize their achievements. The focus, however, turns away from teacher competition for the best student work to student performance as measured by criteria for excellence.

Evidence-based Practice

There are two major ways to use research evidence to inform practice:

1. The conscientious, explicit and judicious use of current best research findings in making decisions about instruction
2. The gathering of evidence generated in the performance of day-to-day instruction to demonstrate the tangible impacts and outcomes of sound decision making. Teachers focus their exercise of control away from students and toward their own performance. Todd, CISSL, (http://cissl.scils.rutgers.edu/guided_inquiry/introduction.html).

The pedagogy of a 21st century technical culture that offers more independence to learners but also provides the support and interventions they need to succeed. When Web 2.0 tools are integrated with this teaching approach schooling moves into the digital arena where student want to be. Learning in school takes on an authenticity when it is immersed in the familiar web culture where students are learning in a constructivist model. How will teachers feel about this change? When we apply teachers’ criteria for assessing change, this common technical culture works. Does the change address a student need? Yes, it addresses the need to work, as well as play, in a virtual environment that has become the country of their culture. How will it affect the teacher? This common technical culture will break down the isolation of teaching models of team building emerge that will both rewarding and productive for teachers as they interact with the school librarian, and other teachers, as peers. In this common technical culture the school librarian gains credibility as a teacher who can stimulate students to be creative.

Knowledge is Power

In 1597 Sir Francis Bacon wrote, “For also knowledge itself is power.” Four hundred years later our society has moved from the Information Age to the Knowledge Age in just 10 years. The culture of schooling, however, is not tooled to make the shift from information- to knowledge-centered learning. Those tools reside in a common technical culture that acknowledges the world of our Generation Y learners and these tools are at our fingertips. School librarians are equipped for 21st century teaching, but like our students, they need to use the raw material of information to construct their own meaning. Each school librarian has her own unique answers to the challenges of 21st century education. Part of that challenge is to build foundational knowledge in order to do something with it: break it down to try to understand its parts, and put it back together in a new and different synthesis in small acts of creation. That is why we are here today.

Guided by the research that tells us what works, let's make this knowledge our own and go forward to create exciting learning environments that motivate our students and our teachers to be creative and inventive 21st century learners.

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