

Carroll, P.S., & Bowman, C.A. (2000). Leaping fire: Texts and technology. *Contemporary Issues in Technology and Teacher Education*, [Online serial], 1(2), 229-235.

Leaping Fire: Texts and Technology

PAMELA S. CARROLL and CYNTHIA A. BOWMAN

Florida State University

Note: *This article presents a theoretical framework to support the strategies suggested by Medicus and Wood for the integration/infusion of technology in English language arts classrooms in the second English article. Together these articles put theory into practice for English educators.*

As English educators, we are called upon to prepare future teachers of English language arts as they journey from content knowledge, to pedagogical knowledge, to classroom practice. It is an opportunity to share our passion for teaching and learning, for spiraling between theory and practice. We encourage our students to create classroom communities where wonder and the imagination are nurtured and challenged. Medicus and Wood illustrate many creative and exciting uses for technology, which capture the students' attention and interest, engaging students in classroom activities to promote academic achievement. They have focused on three concepts, which are central to the language arts teacher's practice—(a) connection/community, (b) artistic/aesthetic/imaginative thinking, and (c) literacy.

Technology and the Connection/Community Link

Technology enhances the teacher's ability to connect with students. Collaboration with others is fostered, nurtured, and enhanced through technology. Together, problems are solved, decisions are made, and meaning is made. Sociologically, a community possesses human interdependence, solidarity, a sense of culture and history, diversity and pluralism, and social integration. With the decline of a culture comes a loss of spirituality and aesthetic experience, which yields an emptiness, despair, and hopelessness. Perhaps that is one reason that the students in our classrooms "surf the web" and search for opportunities to reach out into cyber-space for understanding and conversation. Creating caring spaces requires that "classrooms should be places in which students can legitimately act on a rich variety of purposes, in which wonder and curiosity are alive, in which students and teachers live together and grow" (Noddings, 1992, p. 12). Caring, in community, does bring to education its greatest moral competence and worth. Education should be concerned about the whole person. Dewey (1916) said, "School should be a genuine form of active community life, instead of a place set apart in which to learn lessons" (p.27). Therefore, curriculum must allow for new learning, the integration of old knowledge, and community. It must be a student-focused course of study characterized by questioning, moral and ethical reasoning, and caring interactions. No theory of learning that mechanically and reductionistically treats others can improve the heroic lives of children or their teachers.

Thomas Sergiovanni (1994) proposes that the most hopeful reform for education is to build community in the classroom, a partnership which allows for a shared learning experience, provides opportunities for personal relevance, makes meaning through narrative, lets go of

control, and enhances caring. A structure for community must be built on dialogue and reflection. In *Democracy and Education*, Dewey (1916) begins his discussion of communication in community:

Society not only continues to exist by transmission, by communication, but it may fairly be said to exist in transmission, in communication. There is more than a verbal tie between the words common, community, and communication. Men live in a community in virtue of the things which they have in common; and communication is the way in which they come to possess things in common. (p. 5)

John Dewey (1916) links communication inextricably with community. In *Freedom and Culture* he writes:

There is a difference between a society, in the sense of an association, and a community. Electrons, atoms, and molecules are in association with one another. Nothing exists in isolation anywhere throughout nature. Natural associations are conditions for the existence of a community, but a community adds the function of communication in which emotions and ideas are shared as well as joint undertakings engaged in. (p. 159)

Dewey viewed community as a shared matrix of human relationships based on a spirit of cooperation and communication, where quality is more important than quantity. As Medicus and Wood illustrate, technology today has the capacity to create global communities, providing a learning environment for our students beyond the walls of our classrooms. Their ideas for cultural exchanges and on-line publications reflect the endless possibilities for today's educators.

In *Literature As Exploration*, originally published in 1938, Louise Rosenblatt (1995) focused on the social context of literature in the English classroom. Rosenblatt believes that the personal, social, and cultural contexts of literature provide a sense of belonging that is fluid and reciprocal.

[The student] needs to understand himself; he needs to work out harmonious relationships with other people. He must achieve a philosophy, an inner center from which to view in perspective the shifting society about him; he will influence for good or ill its future development. (p. 3)

Rosenblatt (1995) stresses the interactional components of a classroom where language and literary discussion can flourish. Technology has the potential to enhance and promote such interaction through inquiry, problem-solving, critical thinking, self-evaluation, and reflection. Like Dewey, Rosenblatt explores the connection between community and communication.

In most cases a personal experience will elicit a definite response; it will lead to some kind of reflection. It may also lead to the desire to communicate this to others whom the boy or girl trusts. An atmosphere of informal, friendly exchange should be created. The student should feel free to reveal emotions and to make judgments. (p. 70)

Other reader-response theorists have also discussed the social nature of language and learning. David Bleich (1975) believes that responses to the text can be enhanced through community in the classroom. Further, Stanley Fish (1980) posits that interpretation is a process of "interpretive communities."

Martin Buber's (1996) notion of community exists in the between of the I/Thou relationship and

values dialogue, reciprocity, openness, concern for the relationship, and a rediscovery of the boundary between self and other. I is the beginning of dialogue; We evolves through sacrifice, commitment to values, nurturing the bondedness, and time.

Man has always had his experiences as I, his experiences with others, and with himself; but it is as We, ever again as We, that he has constructed and developed a world out of his experiences...Man has always thought his thoughts as I, and as I he has transplanted his ideas into the firmament of the spirit, but as We he has ever raised them into being itself, in just that mode of existence that I call "the between" or "betweenness."...It is to this that the seventh Platonic epistle points when it hints at the existence of a teaching which attains to effective reality not otherwise in manifold togetherness and living with one another as a light is kindled from leaping fire. Leaping fire is indeed the right image for the dynamic between persons in We. (Buber, 1966, p. 107)

Buber's notion of the We affirms the individual and the community in much the same way Thomas Merton espouses that the essence of human life is one's connection to others. In Buber's words, "Only men who are capable of truly saying Thou to one another can truly say We with one another" (Buber, 1972, p.175). It is a slow process, which awakens trust, belonging, and purpose—a process, which cannot be forced. Indeed, one of the problems for community is maintaining a dual spirit of being willing to struggle for what one believes to be true while remaining open to another's perspective. When this narrow ridge between the I and Thou is marginalized through appeasement, indiscriminate listening, stereotyping, or shunning; the community becomes threatened.

In *Teaching the Universe of Discourse*, James Moffett (1968, 1987) expands Buber's notion of the I/It and the I/Thou relationships in creating his ladder of abstractions. Moffett compares Buber's I/It relationship to the self and the I/Thou relationship to the other. Discourse, like community, is fluid and begins with the self before reaching outward to known others in close proximity to known others at a distance and, finally, to unknown others. According to Moffett, the whole structure of discourse is based on relationships and connectedness, as he outlines the continuum from interior dialogue to conversation to correspondence to publication.

Existential philosophers Heidegger, Nietzsche, and Hegel attempted to define meaning and human fulfillment through authentic relationships, community. Minar and Greer (1969) view authenticity as a responsibility to self, an awareness of the person one ought to be which creates a bond supporting the potential and growth of the other. "To be authentic is to establish integral connections with other people, nature, work, and ideas, thus making the world really one's own" (Minar & Greer, p. 72). Community nurtures the authenticity of the other, a relationship which allows for a shared learning experience, provides opportunities for personal relevance, makes meaning through narrative, lets go of control, and enhances caring. A structure for community is built on dialogue and reflection (Noddings, 1992).

There has, historically, been a tension between individual and common interest, in the move to a more industrialized world. The rapid technological advances have dramatically shifted notions of community.

Community refers both to the unit of a society as it is and to the aspects of the unit that are valued if they exist, desired in their absence. Community is indivisible from human actions, purposes, and values. It expresses our vague yearnings for a commonality of desire, a communion with those around us, an extension of the

bonds of kin and friend to all those who share a common fate with us. (Minar & Greer, p. ix)

Lev Vygotsky's zone of proximal development is based on the notion that learning takes place through interaction with other people. Vygotskian psychology has been formative in many English classrooms. Collaborative learning, the exploration of ideas through informal talk, writing as a process, and language across the curriculum all have their source in insights derived from his work. Carl Bereiter (1985) views the classroom as "a social setting for mutual support of knowledge construction, a setting that could eventually be internalized by the individual students" (p. 221). Frank Smith (1998) encourages membership in the "literacy club" to foster literacy through community.

Language, like community, requires responsiveness and understanding; it is relational and interactional. If community is our place in this world, then language is the means by which we create that place, that world, a world which is changing rapidly as computers expand our borders through exploration, collaboration, reflection, and meaning making.

Technology and the Artistic/Aesthetic/Imaginative Link

Motivating readers and writers involves helping students find ways to create aesthetic responses. Teachers should provide students with opportunities for developing an image bank of memories, visual representations, and other flavorful qualities that depend upon interaction and invite criticism (Gardner, 1983). Computers allow students to manipulate text, images, sounds, and graphics, providing opportunities for students to write, illustrate, publish, and create. Reading evokes visual, auditory, and all sensory images, requiring feeling, sensing, responding, focusing, synthesizing, and evaluating. Today, when students are expressing themselves through violence, the opportunity to channel some of their energies to create original valued projects holds a great deal of promise. Seeing a pattern through reading and writing activities is sharing a unique vision of the world, creating connections and enriched understanding evoking experience, imagination, and wonder. Elliot W. Eisner (1998), in *The Kind of Schools We Need*, encourages teachers of English to expand our definitions of literacy, to recognize that artistic expression can take many forms, to support students' efforts to create meanings through visual art, music, dance, mathematics, and other forms, in addition to the linguistic forms that are the staples of the English classroom, to realign our curricula with our understanding of multiple literacies. He also encourages us to recognize that it is appropriate, not intellectual softness, to bring attention to the feelings our students experience while making meaning in our English/language arts classes.

Humans think not only in language, but also in visual images, in gestural ones, and in patterned sound. The surest way to create semiliterate graduates from American secondary schools is to insure that many of the most important forms through which meaning is represented will be enigmas to our students, codes they cannot crack. (Eisner, p. 19)

Medicus and Wood offer suggestions to classroom teachers for using technology as a means of infusing art and music into English language arts classrooms to enhance understanding and comprehension. Images are the building blocks of our thinking schemata and an essential characteristic of meaning making. Technology augments students' metaphorical powers, objectifying self- and world-consciousness, emotions, and moods.

The construction of meaning depends upon the individual's ability to experience ways in which others in the culture have constructed and represented meaning. Forms of representation—visual, auditory, kinesthetic, linguistic, and mathematical—are ways in which members of a culture uniquely 'encode' and 'decode' meaning. The meanings that can be secured from music, for example, have no identical counterpart in any other form. Composers make sound meaningful by the way they organize it, artists by the way in which they compose visual images, writers and poets by the way in which they treat language, mathematicians in the forms they employ to describe quantitative relationships.

The ability to 'make sense' out of forms of representation is not merely a way of securing meaning—as important as that may be—it is also a way of developing cognitive skills. The forms of thinking that students are able to use are profoundly influenced by the kind of experience they are able to have... All thinking, especially all productive thinking, is infused with feeling. Feeling permeates the forms of thinking we employ and provides us with the information we need to make judgments about the quality of our work. Mind is not separated from affect; affect is part and parcel of mind. Thus, for the refinement of cognitive skills to be fully developed, it must in some way be emotionalized. (Eisner, 1998, pp. 7-8)

The English curriculum requires writing, composing, and creating. For teachers of English, technology is essential for publications, performances, and public presentations (Moffett & Wagner, 1992).

Technology and the Literacy Link

We believe that teachers can learn to use technology to improve instruction by enhancing students' abilities to enter the conversation of the discipline—to become active members of the 21st century learners'/thinkers' club. As teachers, we can help students find ways to demonstrate, from varied perspectives, the meanings they construct when they read literary texts. Although some may argue that technology is an answer to over-crowded, under-challenging classrooms as the computer can "teach" students, or that technology is only flash, not substance; we believe that careful, thoughtful incorporation of technology allows us, as teachers of English language arts, to re-think our relationships with our students and our discipline. English demands that personal connections be made to others' words and expressed ideas and that students learn to form, articulate, and communicate their ideas to others. Technology offers numerous venues for improving the literacy of our students. We propose thoughtful, creative planning in which technology is used to increase students' abilities to make sense of their worlds. If we define critical literacy as the ability to make sense of one's world, the deceptive simplicity hides enormously complex questions about what it means to know. The philosophical question of knowing and the pedagogical question of teaching are connected: How can we teach so that others can know? As literacy takes on new meaning based on the changing notions of text and communication, we must seek new ways to address the changing needs of today's students. Improving the literacy of our students is the greatest challenge of the 21st century as literacy cannot be isolated into disconnected programs of study or content areas. Each student's literacy impacts reading, writing, problem-solving, and technical skills; and every educator must be able to support students across grades and across disciplines to interact with and comprehend their worlds as represented through a variety of texts. As teachers of English language arts, we view technology as essential materials for inquiry as students possess the means for collecting data

and raw materials. Students must then summarize, synthesize, and evaluate, select, reject, listen, read, organize, interpret, talk, write, edit, and revise. Technology-enhanced teaching and learning, if conditions are established to increase the range of expression available to students, provide opportunities to construct and articulate meanings that in the traditional class would be limited to rendering and expressing in words only. We paralleled the potential characteristics of technology to Frank Smith's (1998) Classic View of Learning and found comparisons illustrating that both are:

- boundless
- independent of rewards or punishments
- effortless
- continual
- inconspicuous, and
- social. (p. 5)

"All learning pivots on who we think we are, and who we see ourselves as capable of becoming" (Smith, 1998, p.11). Language is an important factor in a student's self-understanding and the interplay of reading and writing is a vital on-going cycle. Technology in terms of life skills is all about integration and finding connections, prior knowledge with new information, integrating one skill with others, one discipline with another. Uniting school with the world, the mind with the body, and the child with the adult one wants to become. It is the process of evolving meaning that motivates students. Through reading and writing, students are collecting and connecting; for literacy is a bridge to understanding.

Technology and the Teaching Link

Classroom teachers need support to implement the strategies necessary to create instructional frameworks that will improve the literacy skills of their students, to become familiar with methods that will enhance each student's understanding and integrate these methods with field experiences and technology applications. Technology supports content, critical, and creative thinking (Jonassen, 2000). Literacy is not simply a challenge for education; it is a challenge for life. Information literacy, or technology, requires students—and teachers—to conduct searches, evaluate, and create new ideas.

Schools need to provide the opportunities for literate occasions for students to share their experiences, work in social relations that emphasize care and concern for others, to take risks, and to fight for a quality of life in which all human beings benefit. (Giroux, 1987, p. 181)

References

- Bereiter, C. (1985). *Toward a solution of the learning paradox*.
- Bleich, D. (1975). *Readings and feelings: An introduction to subjective criticism*. Urbana, IL: NCTE.
- Buber, M. (1966). *The knowledge of man: A philosophy of the interhuman*. New York: Harper.

- Buber, M. (1972). *Between man and man*. New York: Macmillan.
- Dewey, J. (1916). *Democracy and education*. New York: Macmillan.
- Dewey, J. (1963). *Freedom and culture*. New York: Capricorn Books.
- Eisner, Elliot W. (1998). *The kind of schools we need: Personal essays*. Portsmouth, NH: Heinemann.
- Fish, S. (1980). *Is there a text in this class? The authority of interpretive communities*. Cambridge: Harvard University.
- Gardner, H. (1983). *Frames of mind*. New York: Basic Books.
- Giroux, H.A. (1987). Critical literacy and student experience: Donald Graves' approach to literacy. *Language Arts*, 64(2), 175-181.
- Jonassen, D. (2000). *Computers as mindtools for schools*. Columbus, OH: Merrill.
- Minar, D., & Greer, S. (1969). *The concept of community*. Chicago: Aldine Publishing.
- Moffett, J. (1968/1987). *Teaching the universe of discourse*. Portsmouth, NH: Boynton-Cook/Heinemann.
- Moffett, J., & Wagner, B.J. (1992). *Student-centered language arts, K-12*. Westport, CT: Greenwood-Heinemann.
- Noddings, N. (1992). *The challenge to care in schools*. New York: Teacher's College.
- Rosenblatt, L. (1995). *Literature as exploration*. New York: MLA.
- Sergiovanni, T. (1994). *Building community in schools*. San Francisco: Jossey-Bass.
- Smith, F. (1998). *The book of learning and forgetting*. New York: Teacher's College.

Contemporary Issues in Technology and Teacher Education is an online journal. All text, tables, and figures in the print version of this article are exact representations of the original. However, the original article may also include video and audio files, which can be accessed on the World Wide Web at <http://www.citejournal.org>