

Electronic Reading Workshop: Beyond Books With New Literacies and Instructional Technologies

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teachers.**

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In today's classrooms, literacy instruction is changing in profound ways as new technologies provide opportunities to enhance and extend already meaningful literacy practices. Over the past decades, the rapid infiltration of technology has significantly affected U.S. schools and the daily lives of both teachers and students of all ages (Leu, 2002; Valmont & Wepner, 2000). In addition to more traditional literacies of paper, pencil, and books, today's students encounter and interact with new literacies, including electronic books, Internet-based reading and writing, and online communication experiences.

Teachers and researchers agree that today's students need and deserve the skills, strategies, and insights to successfully exploit the rapidly changing information and communication technologies that continually emerge in the world. As a result, literacy educators of all grade levels are recognizing the need to respond to the changing array of media technologies and resources used both within and outside the classroom to make education more responsive to today's learners (Hobbs, 2006; Leu, 2002). The International Society for Technology in Education (ISTE) provides guidelines for technology performances through the National Educational Technology Standards (NETS) for both teachers and students (cnets.iste.org). The NETS for students serve as guidelines to help teachers prepare students to learn and live in an emerging global society, whereas the newly revised NETS for teachers provide a framework for teachers as they "transition schools from Industrial Age to Digital Age places of learning" (International Society for Technology in Education, 2008).

Rising to the Challenge

Embedding technology in literacy methods courses is an effective factor in preparing tomorrow's teachers to weave technology into their lesson plans and, consequently, affect K–12 students during field experiences and in future classrooms (Labbo & Reinking, 1999; Watts-Taffe, Gwinn, Johnson, & Horn, 2003). At the beginning of this school year, I renewed my commitment to help my undergraduate education students explore ways in which

new literacies can be intertwined with tried-and-true literacy practices such as the reading workshop.

According to Atwell (1998), a reading workshop provides students with an opportunity to participate in a literature-based learning environment in which students work collaboratively under the guidance of a competent teacher. Although the structures and configurations of reading vary, there are generally four common components of a reading workshop (Hancock, 2007):

1. Literature selection—Students read fiction and nonfiction picture books or novels.
2. Literature response journals—Students engage in individual literature response journal writing.
3. Literature conversations—Groups of students meet to discuss selections of literature. This is often referred to as literature circles (Daniels, 2002).
4. Project response options—Individuals or small groups of students extend the reading experience through art, music, research, interviews, drama, and multimedia.

By asking what would happen if aspects of technology were simultaneously integrated into all components of reading workshop, I conceptualized an electronic reading workshop (ERW). As explained in Table 1, the ERW is similar in structure to the traditional reading workshop but also offers multiple op-

portunities for new literacy practices and integration of technology.

The ERW

To encourage the preservice teachers' use and understanding of technology and new literacy instruction, I incorporated an ERW into my Language Arts Methods course. In this article, I propose ideas for incorporating technology into each component of the ERW, explain how the concept of an ERW was introduced and implemented in a classroom community of preservice teachers, and offer suggestions for adapting and implementing an ERW in an elementary or middle-level classroom.

The Next Generation of Books

The first and perhaps most important ERW component is the selection of literature. Electronic books, or e-books, represent a relatively new type of text that comes in several formats: online-accessible stories, CD-ROM books, and downloadable books (including picture and chapter books and textbooks). Much like traditional books, the electronic versions embrace text and illustrations but may also employ multimodal features including animation, sound, music, video, and hyperlinks. By using software like Adobe Reader or Microsoft Reader, e-books can be viewed on desktop computers, laptops, or handheld devices (e.g., PDAs). Readers can purchase e-books from an online bookstore or borrow them from a free online library or resource.

Table 1 The Traditional Reading Workshop Versus the Electronic Reading Workshop

| | Traditional reading workshop | Electronic reading workshop |
|------------------------------|--|---|
| Literature selection | Print texts—novels, picture books, magazine articles | e-books, online reading materials, hypertexts |
| Literature response journals | Literature response journals | Electronic journals, blogs |
| Literature conversations | Literature discussions, literature circles, book clubs | Synchronous or asynchronous online discussions (threaded discussion groups, chat rooms) |
| Project response options | Book reports, posters, Readers Theatre | Technology-based projects—Internet, publishing, multimedia |

Note. Adapted from Larson, L.C. (2007). *A case study exploring the "new literacies" during a fifth-grade electronic reading workshop*. Doctoral dissertation, Kansas State University. Reprinted with permission.

Electronic books often feature user-friendly editing tools, which may vary among individual titles and reader software. Such tools allow the reader to edit the text by inserting, deleting, or replacing text; mark passages by highlighting, underlining, or crossing out words; add comments by inserting sticky notes, attaching files, or recording audio comments; and manipulate the page format, text size, and screen layout. Search features allow the user to instantaneously locate specific words or phrases within the text or turn to a particular page.

In the Language Arts Methods course, 17 of the 22 preservice teachers accessed at least one editing tool. Although the electronic reading experience was unique to individual readers, several distinct trends, or characteristics, emerged. Amy (all names are pseudonyms) described how she used selected tools as a reflective component of the reading process:

As I read, I would highlight passages that I thought to be important to the story and then use the text box tool to explain the significance of those passages. I found that these tools enhanced the reading experience because I could look back at what I highlighted and wrote in the text boxes, and understand...what I was thinking at that particular point in the story. I personally used these tools as a reflective element on my own progress and thoughts throughout the story.

While enjoying these features in their own interactions with the text, the preservice teachers identified possible uses for such tools in their future elementary- or middle-level classrooms:

- To highlight or underline key vocabulary or text passages to increase word recognition and comprehension
- To attach a document with spelling words, definitions, questions, or prompts relating to the text
- To attach students' literature response journals as an electronic document, which provides easy access while reading
- To accommodate struggling readers by changing font size and page format or by attaching an audio file with supportive comments or recorded text

Considering the nontraditional style of the e-book, selecting an engaging and motivating book that would spark response and interaction among readers became vital. With my preservice teachers in mind, I chose *A House of Tailors* by Patricia Reily Giff. In this work of historical fiction, 13-year-old Dina is falsely accused of being a traitor when her native Germany is at war with France. Consequently Dina must leave Germany and her family's sewing business to begin a new life in America. Knowing that none of the 22 participants had previously accessed an e-book, I provided a brief overview on how to purchase and download the book from an online bookstore using Adobe Reader, which is compatible with both Windows and Mac operating systems. The preservice teachers viewed the process of acquiring the e-book as positive. They were impressed by the simple downloading procedures (step-by-step online directions), low cost (US\$3.99; no shipping and handling), and the easy access and convenience of storing the book on the computer without the worry of misplacing the hard copy.

However, as explained by Corey, reading on the computer often proved to be restricting and time consuming:

I felt that it was not as convenient to read the book on the computer. I had to schedule a block of time to sit down and focus on the book, instead of putting it into my book bag to read in my spare time.

Chris further noted that the computer itself proved to be distracting: "It was a struggle for me to sit at the computer and read the book without being on the Internet, and listening to music and the other 10 things I am usually doing while on the computer." The preservice teachers further commented on the lack of physical interaction with the e-book. Although interactive in nature, the e-book did not spark a physical bond. Logan made it clear that she missed the touch of a regular book:

I like to curl up in my bed or on my couch and just lay there and read. You can't exactly do that sitting up at a computer.... Something about sitting in front of the computer screen is just not the same as curling up with an actual book.

Prior to engaging in this experience 20 of the participants perceived the idea of an e-book as daunting

or unfavorable. Reflecting on her first encounter with an e-book, Kristin wrote,

I will admit that I was very apprehensive about reading a book on the computer. I had never heard of such a thing, and I wasn't so sure it seemed like a good idea. I thought I wasn't even going to be able to download the book, so I was sure the reading process was going to be equally hard. When I was able to retrieve the e-book, I felt my confidence was boosted, and I was ready to begin.

Initial trepidations quickly changed. Isabella, an avid reader, explained,

When beginning this assignment I immediately assumed that I would not like reading a book from a computer screen. I imagined that it would be very difficult for me to sit in one place and read an entire book from a screen. Although, it is still not my favorite method [of] reading a book, the experience went much better than I expected.

At the end of the book, all participants still favored traditional literature but rated the e-book reading experience as positive. Although additional research is needed to realize the full potential of e-books and their impact on reading behaviors, early studies support the idea that various forms of electronic books often motivate young readers while promoting comprehension, literacy development, and personal meaning making (Bus, de Jong, & Verhallen, 2006; Lefever-Davis & Pearman, 2005; Weber & Cavanaugh, 2006).

Electronic Literature Response Journals

The second component of the ERW provides opportunities for individual response to the literature. New technologies offer a plethora of options for individual literature response and more intimate conversations between teacher and students. When conducting an ERW, teachers may opt to use brief e-mail correspondences in which students concisely respond to their daily readings. An alternative involves keeping an online journal or blog. Innovative uses for blogs in education, often called edublogs, are rapidly growing as teachers think of creative ways to immerse this new technology in current curricula and to promote literacy (Huffaker, 2004; Ray 2006; Dobler, 2007/2008). Much like traditional literature response journals,

blogs provide opportunities to record and share innermost thoughts and feelings regarding the reading experience. In addition, blogs have the potential to transform the traditional literature response journal by incorporating multimodal features such as hyperlinks to Web destinations, digital documents, photographs, video files, music, and voice recordings.

Before plunging into the use of blogs, teachers should contemplate issues of safety and carefully consider a host for students' blogs that meet particular needs and address privacy issues such as who has access to the blog. Teachers should also discuss safety concerns and appropriate Internet behaviors with their students. For a review of many free blogging services, visit Blog Host Reviews at www.impressbooks.com/LinksPages/BlogHostRev.htm. Established by the National Center for Missing and Exploited Children, the "Kids' Rules for Online Safety" webpage, available at www.safekids.com/kidsrules.htm, provides guidelines for keeping children safe while they use the Internet. The nonprofit foundation i-SAFE, at www.isafe.org, is the worldwide leader in Internet safety education and provides multiple resources for teachers, parents, and students.

Since the e-books were accessed on the computer, it made sense to host the participants' electronic literature response journals in the same location. In class, the preservice teachers were introduced to Rosenblatt's (1978) transactional theory of reader response and were encouraged to write in a literature response journal to provide a continuing account of thoughts, emotions, ideas, and textual transactions (Hancock, 2004, 2007). In this case, each reader kept an ongoing digital journal on his or her computer using a word processing program such as Microsoft Word. Hancock (2007) emphasized the importance of moving readers in the direction of their unique response potential through "continuous, encouraging feedback with some suggestive, but not demanding comments" (p. 200). The students electronically submitted their journals halfway through the book and then again at the end. Both times, I read their responses and replied to each entry using "track changes," a common editing tool found in Microsoft Word. Track changes allowed me to quickly insert my comments at any particular point within the journals. As

illustrated in Figure 1, when Kristin's journals were returned in an e-mail attachment, my feedback appeared in a different font within her original entries.

Online Literature Conversations

The third component of the ERW allows students to discuss their reading experiences with their peers through electronic forms of communication. Results of early studies support the belief that online literature discussions have great potential for fostering literacy skills, strengthening communication, and building a sense of community (Carico & Logan, 2004; Grisham & Wolsey, 2006; Wolsey, 2004). Various forms of electronic communication tools are available to meet the needs and resources of almost any context and user:

- E-mail exchanges—E-mail technology is readily available and allows innovative opportunities to facilitate literature discussions between readers from classrooms around the world. E-mail partnerships (often referred to as KeyPals or WebPals) may be established between classmates or students from different venues. Pairs of preservice teachers and elementary or middle-level students have also shown they can produce rich conversations about literature (Larson, 2002; Roe, 2000).
- Message board threaded discussion groups—Groups of readers can participate in literature discussion asynchronously (meaning not simultaneously but, rather, individually and at their own pace) using message boards. The asynchronous context allows each reader time to reflect on the text, consider peer responses, and contribute to discussions without the risk of being interrupted by group members (Wolsey, 2004).
- Real-time, online chats—Groups of readers can participate in synchronous (real-time) discussions in an online chatroom. Participants can speak at any time; it's just like a face-to-face conversation but without the physical presence and the opportunity to gather and express individual thoughts (Carico & Logan, 2004).

The preservice teachers were randomly divided into groups of three to four participants. Each group

Figure 1 Excerpt From Kristin's Digital Response Journal With Teacher Feedback

I'm not a big fan of scary movies or books, for they make me feel anxious and ridiculously worried, and these were my exact emotions as I read Chapter 18. It was like a horror story! I was definitely scared for Maria, but I think I was more surprised at the way in which Dina's heart had softened toward the family, and she was willing to do whatever it took to not send Maria to the hospital. I read this chapter rejoicing in who Dina had become. **I agree—Dina has matured a lot since the beginning of the book. She now appears strong, confident, and not afraid to take risks!** She found herself in an extremely threatening situation, but I was baffled at the way in she handled everything. Reading through this chapter, I experienced mixed emotions, but fear and pride were the main two. **Well said! Have you ever found yourself in a similar situation where you had to do "whatever it takes" to help a family member or friend?**

was given space on a message board and asked to participate in asynchronous literature discussions. The guidelines were simple:

- Each group member would be responsible for initiating one new thread by posting an open-ended discussion prompt relating to the book.
- All group members would have to read one another's responses and reply to at least one (in addition to the initial prompt) during each thread.

Before the first discussion prompts were posted, the preservice teachers were given a quick overview of the message board and its functions along with a lesson in composing and assessing quality literature response prompts. Recognizing that college students lead busy lives, each group created a reading and response schedule to accommodate its members and keep everyone on track. As noted by Calkins (2001), "The mark of a good book talk is that people are not just reporting on ideas they've already had; they are, instead, generating ideas together" (p. 235). As illustrated in Figure 2, the first discussion threads appeared formal and forced. While the students responded to the posted prompts, their conversations seemed rather disjointed and lacked a sense of true interaction. Looking at a transcript of her group's postings, Amy reflected,

I realize that at the beginning we, as a group, were having very stilted conversations, but as we kept

Figure 2 Excerpt From the First Literature Discussion

GROUP 5 First posting

By: Amy [09/22/06: 06:57:32 p.m., CDT]

Discussion prompt #1: In the story Dina is always thinking, her mind wanders to a million different places. During her daydreams she has created a picture of what America is like, and how much better it must be than what she has in Breisach.... What advice would you give Dina at this point in the story?

RE: GROUP 5 First posting

By: Amy [09/22/06: 08:12:09 p.m., CDT]

My first instinct would be to tell her to try and make the best of a bad situation. After reading the letter from Katharina it is clear she cannot return home for fear of being charged with spying for the French. She is only a child, and being moved from her family at such a young age seems like an overly harsh punishment for a crime she did not commit....

RE: GROUP 5 First posting

By: Logan [09/23/06: 11:48:06 a.m., CDT]

The saving money to return home is a good idea. But, from what I can tell it must take a long time to do that. I am very curious to see what occurs throughout this book and if by the end she will return home or if she will now be happy with her new life. I think she is going to learn to love this new environment by making new friends and loving her family even more....

posting we got better in the fact that we were commenting more on what each other had to say, which I liked much better.

About halfway through the reading schedule, class time was spent addressing the progress of the online literature conversations. To encourage self-reflection and self-evaluation, each group received a printed transcript of its written conversations and the group's "stats," illuminating each member's number of postings, average length of each posting, and number of replies to postings made by other group members. The self-assessment session proved to be revealing and sparked discussions on how similar transcripts and statistics could be used in elementary and secondary classrooms to encourage rich literature discussions. The class period proved to be a turning point for most groups; subsequent exchanges were longer, richer, and more conversational in nature (see Figure 3).

The Online Discussion Experience. Because threaded discussions are commonly used at the university level, most of the participants were familiar with the

Figure 3 Excerpt From the Third Literature Discussion

GROUP 5 Third posting

By: Alisha [09/26/06: 07:00:46 p.m., CDT]

Discussion prompt #3: After Dina escapes from her burning apartment building, she suddenly realizes her love for her Uncle, Barbara, and Maria—her family. What experiences do you believe led Dina to realize that she loved them? Have you ever been in a situation where you realized you loved someone that you had first disliked?

RE: GROUP 5 Third posting

By: Logan [09/26/06: 11:45:42 p.m., CDT]

...I really don't think you can pinpoint any certain experience when Dina realized that she loved her extended family. I think everyone has a love for their family they just might not know it yet because they do not know them personally. For example, I was very close with all of my grandparents and loved them so much. However, when my grandpa passed away, me and my sisters were completely devastated while my cousin from Colorado did not seem that affected by the situation.... So, basically what I'm trying to say is that sharing experiences and time with someone makes you love them more. Dina came to love her family by sharing experiences (like sewing) and just spending time with her family in general.

Alisha, great question! But, Ok I don't mean to get off topic but I was kind of wondering what everyone thought of the ending of the book/the afterward? I got done reading the last chapter and was like WHAT—they didn't say for sure that Dina and Johann got together! But, then the afterward made me feel better that they did indeed get married. (So, Alisha, the ending turned out the way you hoped....)

procedures of posting and reading messages. However, none of the preservice teachers had previously been part of electronic conversations about literature. My preservice teachers acknowledged that chat room discussions, message board postings, and text messaging had become second nature and an integral part of their daily lives. Furthermore they recognized that written, digital communication functions as a big part of their daily interactions with others. In class, while brainstorming ideas of why traditional face-to-face literature conversations may not meet the needs of all students, they generated the following list:

- Shy students may not feel comfortable sharing inner thoughts and feelings about the book.
- Students may goof off and not stay on topic when meeting in groups.
- Students may come unprepared, without having read the assigned chapters. This would make the discussion time unproductive and pointless.

In addition to the above ideas, Wolsey (2004) suggested that students may rely too heavily on assigned discussion roles and do only what they think the teacher wants. A crowded school day allows only for rushed and fragmented face-to-face conversations.

After a few days of online conversations, the pre-service teachers openly shared insights and frustrations in class. Kristin stated,

I don't know why, but I really loved the online literature discussions. Oh my goodness, did our group have fun...we are so much more ourselves when we are writing to each other online...I thought we definitely had good discussions while creating a harmless and fun learning atmosphere.... I was encouraged each time someone made an entry to discover that they felt exactly like I did while reading. I was always surprised that each group member felt the same way or predicted the same thing to occur...it boosted my confidence.

Jordyn added,

I would rather think about what I want to say and type it when I have a complete answer, instead of saying something off the top of my head that may not be as insightful. So my answers were better through the online method than they would have been face-to-face.

The Advantages and Disadvantages of Online Discussion. The preservice teachers identified many advantages of asynchronous online discussions, including the following:

- It allowed time to reflect on readings and responses prior to posting an entry on the message board.
- Reading other group members' responses inspired deeper and more meaningful transactions with the text.
- It was easy to stay on topic and was less distracting than a face-to-face conversation.
- It provided a safe environment for getting to know group members and sharing personal thoughts about the book.

A couple of disadvantages also emerged:

- The lack of body language and facial expressions made it difficult to interpret the tone of voice of other group members.

- The fast-paced schedule made it difficult to meet deadlines for postings. Difficulties with or lack of access to the Internet further affected some students' ability to post entries on time.

To compensate for the lack of visible body language and facial expressions, some students embellished their postings with smiling or sad emoticons to accentuate the mood of their messages. Although each group had created their own schedule, most found that inadequate time had been allotted for reading and responding to group members' postings before it was time to move on to the next thread. We learned that scheduling issues and time management are important factors to consider when implementing a similar project in the future.

Beyond Books With Technology

The fourth component of the ERW allows students to extend the reading experience through technology-based projects. According to Hancock (2007), response options should be based on individual readers' talents and interests while providing viable means for producing and sharing high-quality response products. Because many of the "traditional" response options (including book reports, art projects, and posters) are visual representations of the literature, they lend themselves especially well to technology integration. However, rather than just creating the same products using new tools (e.g., word processing a traditional pencil-and-paper book report), the ERW challenges teachers and students to think of new and innovative ways to extend reading experiences through new literacies and the use of computer technology.

The preservice teachers collaborated with their group members to generate a unique literature extension project that reflected their personal interests as well as their ideas for potential implementation in their future classrooms. A variety of distinctive projects emerged.

Virtual Guide to the Literature. The virtual guide to *A House of Tailors* was intended to serve as a resource for children reading the book. The group members created a series of PowerPoint slides, each with links to Internet resources that provided prior knowledge or further information on a range of topics relevant to

the text, to enhance the reading experience for young students. As illustrated in Figure 4, to build background knowledge readers may explore hyperlinks to sites providing relevant information about French and German geography, historical context, and sewing.

Digital Oral History. Inspired by Dina’s family and the 19th-century waves of immigration, one group created a digital oral history as a way of honoring their own families’ diverse backgrounds (see Figure 5). The group created a multimedia presentation including sounds, digital photography, scanned documents, and a voice recording of an elaborate script documenting how one student’s father emigrated to the United States. The group also shared steps for creating a digital oral history in an elementary or middle-level classroom: (a) Create and practice interview questions; (b) conduct the interview; (c) compose the story or transcript (to be recorded and inserted into multimedia presentation); (d) collect pictures and artifacts; and (e) create the multimedia presentation including hyperlinks, photographs, artifacts, sound and video files, and graphics.

1870 Newspaper Project. A third group extended the historical setting of Brooklyn, New York by designing the 1870 Newspaper Project in which students used technology tools to research, write, and publish an issue of *The Brooklyn Times*, a fictional newspaper highlighting historical events and news from the time

of Dina’s arrival in New York. The preservice teachers offered guidelines for implementing such a project in an elementary or middle-level classroom: (a) Select and review websites for student use, (b) emphasize facets of newspaper reporting and writing, (c) introduce publishing programs such as Microsoft Publisher to students, and (d) assist students in generating appropriate ideas for topics. In addition to the lesson guidelines, the group presented its own four-page newspaper (the first page is shown in Figure 6) brimming with articles on the war between Germany and France, smallpox (Dina’s family barely survived the epidemic), fashion (Dina designed hats and dresses), and an informative editorial asking “Is the Brooklyn Bridge Worth the Risk?”

Live Broadcast. Another group created a podcast to simulate the sights and sounds of a live broadcast from Brooklyn in 1870. In this audio recording, the students posed as journalists reporting on timely issues including immigration and the construction of the Brooklyn Bridge. Background noise of horse carriages and crowding people added to the authenticity of the performance. K–12 teachers are beginning to realize the potential of *podcasting* (a term derived from *iPod* and *broadcasting*), because even young students can be involved in the scriptwriting, editing, production, and splicing of their podcasts (Borja, 2005).

Figure 4 Sample PowerPoint Slide From the Virtual Guide to *A House of Tailors*

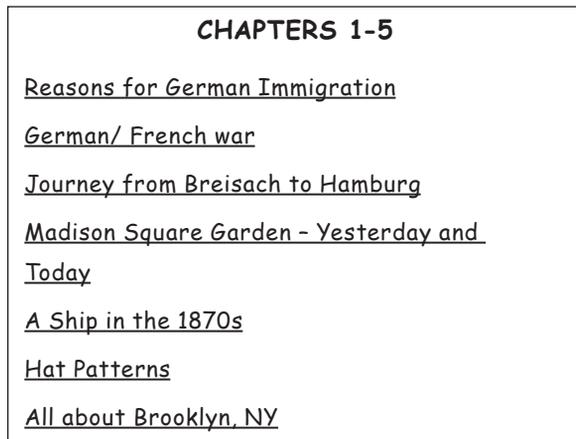


Figure 5 PowerPoint Title Slide of Digital Oral History

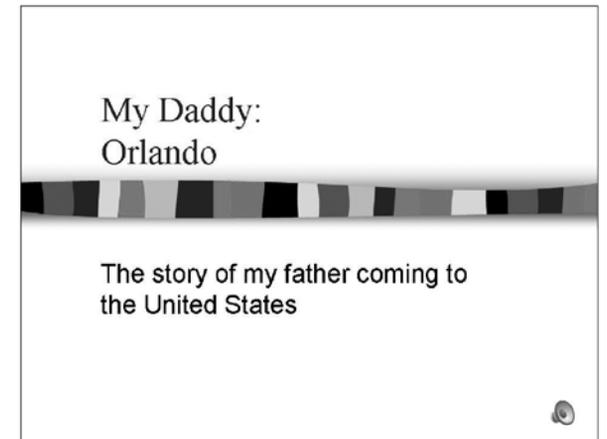


Figure 6 Front Page of 1870 News Paper Project



Table 2 Online Podcasting Resources

- www.edupodder.com
- www.apple.com/education/podcasting
- www.epnweb.org
- www.how-to-podcast-tutorial.com/

interact with new literacies and technologies in non-traditional ways. It is imperative that today's preservice teachers know *how* to teach and facilitate the new literacies. In the new-literacy classroom, the role that teachers play in orchestrating learning experiences are changing in fundamental ways (Leu, Kinzer, Coiro, & Cammack, 2004) as effective learning experiences increasingly depend on social learning experiences. Roles between students and teachers may even reverse at times as all learners share their expertise with others (Leu, 2002). The ERW exemplifies how a teacher can orchestrate a context in which socially constructed literacy learning can take place rather than be the sole dispenser of knowledge.

According to the International Reading Association (2002), educators have a responsibility to effectively integrate technologies and new literacies into the current language curriculum to prepare students for the literacy futures they deserve. Furthermore, all students have the right to “teachers who are skilled in the effective use of ICT for teaching and learning” and “a literacy curriculum that integrates the new literacies of ICT into instructional programs” (International Reading Association, 2002, n.p.). However, while many literacy teachers are skilled in using technology in their own personal and professional lives, they seem reluctant to integrate technology into their instructional practices (Turbill & Murray, 2006). In many K–8 classrooms, teachers still view technology as something for students to play with during free time or use as a reward after their real work has been completed (Turbill & Murray, 2006, p. 93). Recognizing the varying accessibility of technology across states, districts, and even schools, the ERW provides an accessible framework for teachers who wish to enhance their current literacy curriculum by integrating commonly available technologies.

Podcasting is the distribution of audio and video files over the Internet for listening on mobile devices such as iPods or personal computers. The potential of this rapidly developing technology is only limited by the imagination and resourcefulness of teachers and students alike. (See Table 2 for a list of online resources pertaining to podcasting.)

And More. Additional extension projects included WebQuests or Internet-based projects, further exploration of the German language (including audio files and interactive language tutorials), and the creation of electronic books (including hyperlinks to alternative endings, pictures, and other resources). While all literature extension projects were unique and innovative, each clearly reflected the individual group members' particular interests and talents.

Where Do We Go From Here?

The preservice teachers in this study are expected to provide their own students with opportunities to

Although future research may reveal additional implications for teaching and learning, my undergraduate students reported that participating in an ERW helped them prepare for the upcoming challenge of integrating new literacies and differentiating instruction to meet the needs of their future students. I think Jordyn summed it up best in her reflection on the ERW experience:

I think technology integration in the classroom is not only important, it's essential. Students learn in various ways and I think the use of technology will target more learners than the traditional approaches. I already know that I will do a project similar to this one with my students someday. I know if I enjoyed it as much as I did, they will enjoy it more. As a preservice teacher, getting to know the students has been drilled into my head. Most students are interested in technology, so integrating it into the classroom is a great way to focus on their interests and prior knowledge, while teaching in new and innovative ways.

References

- Atwell, N. (1998). *In the middle: Writing, reading, and learning with adolescents* (2nd ed.). Portsmouth, NH: Heinemann.
- Borja, R.R. (2005). Podcasting craze comes to K–12 schools. *Education Week*, 25(14), 8.
- Bus, A.G., de Jong, M.T., & Verhallen, M. (2006). CD-ROM talking books: A way to enhance early literacy? In M.C. McKenna, L.D. Labbo, R.D. Kieffer, & D. Reinking (Eds.), *International handbook of literacy and technology* (Vol. 2, pp. 129–142). Mahwah, NJ: Erlbaum.
- Calkins, L.M. (2001). *The art of teaching reading*. New York: Longman.
- Carico, K.M. & Logan, D. (2004). A generation in Cyberspace: Engaging readers through online discussions. *Language Arts*, 81(4), 293–302.
- Daniels, H. (2002). *Literature circles: Voice and choice in book clubs and reading groups* (2nd ed.). Portland, ME: Stenhouse.
- Dobler, E. (2007/2008). Blogs as learning tools. *Kansas Journal of Reading*, 23, 18–25.
- Grisham, D.L., & Wolsey, T.D. (2006). Recentering the middle school classroom as a vibrant learning community: Students, literacy, and technology intersect. *Journal of Adolescent & Adult Literacy*, 49, 648–660, doi:10.1598/JAAL.49.8.2.
- Hancock, M.R. (2004). *A celebration of literature and response: Children, books, and teachers in K–8 classrooms* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Hancock, M.R. (2007). *Language arts: Extending the possibilities*. Upper Saddle River, NJ: Prentice Hall.
- Hobbs, R. (2006). Multiple visions of multimedia literacy: Emerging areas of synthesis. In M.C. McKenna, L.D. Labbo, R.D. Kieffer, & D. Reinking (Eds.), *International handbook of literacy and technology* (Vol. 2, pp. 15–28). Mahwah, NJ: Erlbaum.
- Huffaker, D. (2004). The educated blogger: Using weblogs to promote literacy in the classroom. *First Monday*, 9(6). Retrieved November 20, 2006, from www.firstmonday.org/ISSUES/issue9_6/huffaker/index.html
- International Reading Association. (2002). *Integrating literacy and technology into the curriculum* (Position statement). Newark, DE: Author.
- International Society for Technology in Education. (2008). *NETS for Teachers: Supporting Digital Age Learners*. Retrieved July 3, 2008, from www.iste.org/Content/NavigationMenu/NETS/ForTeachers/NETS_for_Teachers.htm
- Labbo, L.D., & Reinking, D. (1999). Negotiating the multiple realities of technology in literacy research and instruction. *Reading Research Quarterly*, 34(4), 478–492, doi:10.1598/RRQ.34.4.5
- Larson, L.C. (2002). The Keypal project: Integrating literature response and technology. *Kansas Journal of Reading*, 18, 57–62.
- Larson, L.C. (2007). *A case study exploring the “new literacies” during a fifth-grade electronic reading workshop*. Doctoral dissertation, Kansas State University. Retrieved April 15, 2008, from krex.ksu.edu/dspace/handle/2097/352
- Lefever-Davis, S., & Pearman, C. (2005). Early readers and electronic texts: CD-ROM storybook features that influence reading behaviors. *The Reading Teacher*, 58(5), 446–454, doi:10.1598/RT.58.5.4
- Leu, D.J., Jr. (2002). The new literacies: Research on reading instruction with the Internet. In A.E. Farstrup & S.J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed., pp. 310–336). Newark, DE: International Reading Association.
- Leu, D.J., Jr., Kinzer, C.K., Coiro, J.L., & 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* (5th ed., pp. 1570–1613). Newark, DE: International Reading Association.
- Ray, J. (2006). Welcome to the blogosphere: The educational use of blogs (aka edublogs). *Kappa Delta Pi Records*, 42(4), 175–177.
- Roe, B.D. (2000). Using technology for content area literacy. In S.B. Wepner, W.J. Valmont, & R. Thurlow (Eds.), *Linking literacy and technology: A guide for K–8 classrooms* (pp. 133–158). Newark, DE: International Reading Association.
- Rosenblatt, L. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale: Southern Illinois University Press.
- Turbill, J., & Murray, J. (2006). Early literacy and new technologies in Australian schools: Policy, research, and practice. In M.C. McKenna, L.D. Labbo, R.D. Kieffer, & D. Reinking (Eds.), *International handbook of literacy and technology* (Vol. 2, pp. 93–108). Mahwah, NJ: Erlbaum.
- Valmont, W.J., & Wepner, S.B. (2000). Using technology to support literacy learning. In S.B. Wepner, W.J. Valmont, & R. Thurlow (Eds.), *Linking literacy and technology: A guide for K–8 classrooms* (pp. 2–18). Newark, DE: International Reading Association.
- Watts-Taffe, S., Gwinn, C.B., Johnson, J.R., & Horn, M.L. (2003). Preparing preservice teachers to integrate technology

with the elementary literacy program. *The Reading Teacher*, 57(2), 130–138.

Weber, C.L., & Cavanaugh, T.W. (2006). Promoting reading: Using e-books with gifted and advanced readers. *Gifted Child Today*, 29(4), 56–63.

Wolsey, T.D. (2004). Literature discussions in cyberspace: Young adolescents using threaded discussion groups to talk about

reading. *Reading Online*, 7(4). Retrieved April 15, 2008, from www.readingonline.org/articles/art_index.asp?HREF=/articles/wolsey/

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