Using Multi-Media Projects to Foster Teacher Candidates’ Multiple Literacy Skills

Salika A. Lawrence
Geraldine Mongillo

ABSTRACT
This article describes the strategies used to incorporate multi-modal technology literacy experiences into a graduate level course for literacy specialists. The candidates created a multi-media project in response to literature. Their projects revealed that the teacher candidates used a variety of sources to create the project but the Internet was most often used to embed (download and insert) music, images, and video clips into their I-movie video narratives. Creating media projects fostered opportunities for teacher candidates to use multiple literacy skills, needed for 21st century learning and communication: multiple and diverse sources of information, multiple viewpoints, and diverse content to express and communicate ideas to a viewing audience. Teacher educators should provide opportunities for teacher candidates to create their own media. Using media literacy projects is one way to enrich the literacy experiences of learners, and enhance their interaction with text and their responses to text through use of technology.

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Teacher quality continues to be an issue explored by teacher researchers. Research shows the issue of teacher preparedness cuts across programs and content areas. Recently the impact of teacher content knowledge and pedagogical skills on K-12 student learning is of particular importance (National Council for Accreditation of Teacher Education, 2006). In our rapidly changing, technology driven society, teacher knowledge of technology has emerged as an important issue concerning teacher education and public school education (Jones & Moreland, 2004; Kay, 2006; Mims, Polly, Sheperd, & Inan, 2006). At first glance it might appear that technology teacher-educators bear the burden of preparing teachers to use technology for teaching and learning in K-12 contexts, but there are implications for teacher educators across content. The Partnership for 21st Century Skills (2004), suggests all teaching and learning in the 21st century requires that both students and teachers have subject specific knowledge, learn
skills, use 21st century tools to foster learning, teach and learn in the 21st century context, connect learning to the real world, and use assessments that measure 21st century learning.

Today literacy practices connect technology to many aspects of our lives through multiple modalities. Brandt (1998) might agree that the literacy needs of the current generation largely differ from those of its predecessor particularly the “multidimensional” literacy needs of global citizens in the 21st century. Due to the wide spectrum and varied layers of literacies encountered today, New Literacy Theory (New London Group, 1996) combines with Gee’s (1996) assertions to redefine literacy. In this way a new term, multiliteracies, accounts for “the context of our culturally and linguistically diverse and increasingly globalized societies… [and] for the burgeoning variety of text forms associated with information and multimedia technologies (New London Group, 1996, p.60).

Technology has impacted literacy practices on a global level to the point where 21st century literacy practices include the ability to:

- work collaboratively, online without any face-to-face contact (Leu & Kinzer, 2000)
- evaluate extensive amounts of information, select that which is most relevant and accurate, and be effective online communicators and collaborators (Leu & Kinzer, 2000)
- master new authoring skills in a nonlinear environment in order to interpret and represent knowledge (Brunner & Tally, 1999)

The increased emphasis on technology has overshadowed the importance of information literacy (Horton & Keiser, 2008). This is problematic because technology and information literacy are interconnected and has significant implications for in education contexts where today’s teachers and students should be using technology as a teaching and learning tool (Partnership for 21st Century Literacy, 2004). The interconnectedness of technology and information literacy magnifies the current global transformation that is shifting literacy “from traditional literacy to twenty-first-century multiliteracies—and reflects the impact of communication technologies and multimedia on the evolving nature of texts, as well as the skills and dispositions associated with the consumption, production, evaluation, and distribution of those texts” (Borsheim, Merritt, & Reed, 2008, p. 87).

Additionally this broadened definition of literacy, acknowledges both the cultural and linguistic variations of individuals as well as the multiple modalities in current use, and can be used to inform contemporary literacy pedagogy. “This shift [also] has important implications for teachers and teacher educators because…although the shift is clearly technological, to prepare students for full and equal participation in public, private, and work environments of the twenty-first-century, it must also be pedagogical” (Borsheim, Merritt, & Reed, 2008, p. 87). To foster teacher candidates’ literacy proficiencies in information literacy and technology, media literacy education needs to be integrated with media production (Adams & Hamm, 2000). The conflict as stated by Hobbs (1998) is the controversy regarding the ways in which individuals learn media literacy—learning solely by deconstructing videos or by creating their own videos. Today, videos are a prevalent form of text that often merges print and non-print media. Interacting with this form of text often requires learners to use multiple literacy practices (Leu & Kinzer, 2000; New London Group, 1996).

Borsheim, Merritt, and Reed (2008) found that “teachers who employ a multiliteracies pedagogy offer their students ample opportunities to access, evaluate, search, soft, gather, and read information from a variety of sources and invite students to collaborate in real and virtual spaces to produce and publish multimedia and multimodal texts for a variety of audiences and purposes” (p. 87). For example, teacher educators have used wikis and blogs to provide “teacher
candidates [with opportunities]... to reflect on and learn about technology’s role in the multiliteracies of their lives and those of their secondary students” (Borsheim, Merritt, & Reed, 2008, p. 88). Using wikis and blogs helped the teacher educators to model pedagogical uses of the technology, provided a virtual common space for ongoing mentorship of the teacher candidates and fostered opportunity for collaboration between candidates, and helped to increase teacher candidates’ confidence with the technology (Borsheim, Merritt, & Reed, 2008).

As teacher educators, we wanted to see what would happen when we incorporated multimodal technology literacy training into their education course to introduce candidates to the benefits of using technology to promote students’ interaction with authentic literature. This article is a report of our instructional decisions and how it impacted technology and literacy practices of candidates in our teacher education programs. Because technology is a broad area to explore, we wanted to focus on what would happen when we asked candidates to create a media literacy project as a way to respond to literature. Specifically we wanted to know:

1. How does the multi-media project support teacher candidates’ use of media and technology, and support development of their information literacy skills?
2. To what extent did completing the multi-media project foster candidates’ interaction with and interpretation of authentic literature?

Fostering Teacher Candidates’ Interaction with Children’s Literature

As university faculty members (the co-authors) worked with 69 candidates enrolled in three of their Masters level courses during spring 2006, summer 2006, and summer 2007. Two of the courses were elective literature courses in the Masters Reading Program and the other course was a required literacy course in a graduate alternative certification program. Candidates either taught in or had a field placement in both urban and suburban school districts. Candidates were predominantly Caucasian females in the 25-45-age range, with three Caucasian male candidates in the alternate certification group.

One overlapping project in all three courses—the literature circle assignment—provided the teacher candidates with many opportunities for connect technology with authentic literature while fostering students’ informational and technology literacy skills. Below is a description of the courses and the assignment candidates completed, which required their use of technology.

Course 1 and 2: “Reading and Study Skills in Secondary Education” and “Literature for Adolescents” were both taught by the same instructor. The former course was a required course in the graduate alternative certification program, and the latter was an elective course in the Masters in Reading Program. The student learning outcomes in both courses included a group assignment where the students were instructed to create a culminating project representing the novel they read during Literature Circles (Daniels, 2002).

The assignment required that candidates complete a presentation in which they responded to literature using media. The excerpt below which was obtained from the course syllabus indicates that candidates were given a wide range of choices to create and produce their presentation.

Candidates will read several selected Young Adult novels and participate in Literature Circle groups during class. Candidates will create an alternate book report based on one text read during literature circles that reflects an important theme/topic/issue presented in the text. As a group you will negotiate the theme, topic, or issue that you will focus on during this 5-10 minute presentation. Consider this a brief advertisement for the book based on the discussions held in your group. Candidates will also discuss and decide
upon the method and design of the presentation. The use of technology must be incorporated in the presentation. (Course Syllabus, 2006, p.4).

In her reflections, the instructor indicated that she “strongly encouraged” the students to create an I-Movie.

Course 3: “Advanced Inquiry into Literature for Children and Youth” was taught as a 5-week summer session course at the university. The class met for 3 hours, two evenings per week. There were also online sessions using Blackboard. This course is an elective course in the Master’s Reading program. It provides the opportunity for candidates to closely examine and discuss literature, and identify instructional strategies teachers can use to engage students in critical examination of texts across genres.

Candidates were expected to complete an individual literature circle project. The assignment sheet and rubric indicated that they were expected to be “creative and appropriately use visuals and/or technology.” They were to demonstrate that they had integrated “multiple visual and textual elements to focus on one aspect of the book” they were discussing and be able to explain the “processes used to create” their multimedia project. The assignment sheet (Figure 1) indicates that successful candidates would connect the content of critical literacy and media production to examine the intertextual elements of text and critique the text. It provided a list of possible media to be used to create the project. The project was also evaluated on the basis of creativity and the technology used during the presentation to discuss and present the text.

<table>
<thead>
<tr>
<th>Literature Circle Project Assignment Sheet</th>
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<tbody>
<tr>
<td>1. Upon completion of the literature circle meetings, prepare and present a project about <strong>one</strong> of the following. Intertextuality – common themes across the books</td>
</tr>
<tr>
<td>2. Your experience as a reader and member of the literature circle as you interacted with the text on a deeper level</td>
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<tr>
<td>3. Issues and themes that emerged in your book</td>
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<td>4. Critique the text and/or the author’s purpose.</td>
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<tr>
<td>5. Examine the literary elements in the text.</td>
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<tr>
<td>6. Present two different interpretations of an event or an issue in the book.</td>
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<th>Criteria</th>
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<tbody>
<tr>
<td>1. Focus on one of the areas noted above.</td>
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<tr>
<td>2. Include technology (e.g. I-Movie, Powerpoint, video)</td>
</tr>
<tr>
<td>3. Use creative strategies to combine print and non-print text (e.g. art, visual images, text written by you or others.</td>
</tr>
<tr>
<td>4. 20-30 minute presentation</td>
</tr>
<tr>
<td>5. Use an organized format for the presentation (e.g. <strong>your presentation should introduce your project, discuss the processes used to come up with a topic/focus for the project, and how you used technology to create the project</strong>).</td>
</tr>
<tr>
<td>6. Use your imagination and be creative!</td>
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<tr>
<th>Possible projects (not limited to....)</th>
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<tbody>
<tr>
<td>1. Create a television commercial for the book.</td>
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<tr>
<td>2. A video-taped dramatization of a scene in the book or TV critic’s review of the book</td>
</tr>
<tr>
<td>3. A board game or trivia game based on the book.</td>
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**Figure 1: Assignment sheet for literature circle project**
Technology Use Fosters Teacher Candidates’ Information and Technology Literacy Skills

Teacher candidates provided faculty with feedback via a self-evaluation reflection on their experiences while creating the literature circle project. Results revealed that teacher candidates used a combination of strategies and technology skills to create their media project to respond to the book they read. Candidates that previously created I-Movies in other courses eagerly shared their knowledge with novices in their groups. In one course, candidates’ remarks suggested they enjoyed the process particularly learning the technology as a hands-on experience scaffolded by more experienced peers in their assigned groups. One candidate stated, “I didn’t know how to embed my piece into the movie but Katie made it easy…we met as a group in the computer lab and she showed us …it wasn’t hard at all and I’d try it again.”

The candidates previewed video clips, pictures, and digital software while looking for online resources for their literature circle project. Products demonstrated the candidates researched their topics via the Internet accessing multiple sources for information. This was evidenced in the choice of factual information, visual images, video clips, and music embedded in their final movie presentation.

Results also indicate that the teacher candidates used a variety of sources to create their project, namely web streaming, Internet images, music, and print media. The candidates used the Internet to embed (download and insert) music, images, and video clips into their I-movie video narratives. Candidates reported using web streaming most often to download and incorporate images and music into their presentations. Survey responses revealed that Internet search engines provided many of the graphic images in the I-Movies, collage, poster, and brochure. Print media resources (i.e., text from the novel) were incorporated in both the I-Movie and the scene dramatizations.

Responding to Literature Promotes Interdisciplinary and Multiple Literacy Connections

Teacher candidates also used different formats to respond to the texts they read. There were a total of 7 different products teacher candidates created to respond to the novels they read - I-Movie production, PowerPoint, board game, dramatization, poster, collage, and brochure. There was overlap in how technology was used to create the products and/or used during the presentation. Therefore, the frequency with which technology was used to create the products or present their response projects varied: I-Movie production (N=26), PowerPoint (N=28), board game (N=1), dramatization (N=2), posters (N=2), collage (N=1), and brochure (N=1). Most candidates, 28, prepared a PowerPoint slide show, and I-movie was used 26 times as a response project. Table 1 identifies the books teachers used to create the different products. Each presentation fulfilled the assignment requirements demonstrating the candidates’ ability to respond appropriately to a theme or topic based on the text. The I-movie required that candidates use all four sources (web-streaming, Internet images, music, and print media), while the other products—dramatization, poster, collage, brochure, PowerPoint, board game—required usage of one or two sources. It is interesting to note that only the I-Movies and the scene dramatizations included text quoted directly from the novel they were presenting. This is significant because the integration of the words from the text is crucial to an authentic response to the literature. This shows meaningful referential connections to the text while representing the teacher candidates’ reflections and perspectives of the text they are presenting.
The teacher candidates used an interdisciplinary approach (Table 2) to represent the issues broached in the novels. They researched via the Internet a variety of sources to represent issues they identified in their reading of the selected text. In the process they explored new ways to discuss issues encountered in different content areas.

**Table 1: Young Adult Novels and Teacher Created Projects**

<table>
<thead>
<tr>
<th>Novel</th>
<th>Products</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>PowerPoint</td>
</tr>
<tr>
<td>The First Part Last</td>
<td>X</td>
</tr>
<tr>
<td>The Secret Life of Bees</td>
<td>X</td>
</tr>
<tr>
<td>House on Mango Street</td>
<td>X</td>
</tr>
<tr>
<td>Ask Me No Questions</td>
<td>X</td>
</tr>
<tr>
<td>Cut</td>
<td>X</td>
</tr>
<tr>
<td>My Brother’s Keeper</td>
<td>X</td>
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<tr>
<td>The Book Thief</td>
<td>X</td>
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</tbody>
</table>

**Table 2: Content Areas Emphasized in Teacher-Created I-Movies for Each Young Adult Novel**

<table>
<thead>
<tr>
<th>Novel</th>
<th>Subject Content Areas</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>English Language Arts</td>
</tr>
<tr>
<td>The First Part Last</td>
<td>X</td>
</tr>
<tr>
<td>The Secret Life of Bees</td>
<td>X</td>
</tr>
<tr>
<td>House on Mango Street</td>
<td>X</td>
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For example, content analysis of the candidates’ multimedia I-Movie created for *The Secret Life of Bees* (Kidd, 2002) focused on the period’s historical issues by embedding seminal video speeches made by Dr. Martin Luther King, Jr. and Lyndon B. Johnson highlighting their contributions to the Civil Rights movement in America. Similarly the I-Movie for *The First Part Last*, the story of a sixteen year-old father, included video interviews of teen parents obtained.
Factual information on the incidence of teen pregnancy in the United States and the serious health issues involved in teen pregnancy were also researched and included in the production. The media production for *The House on Mango Street* posed crucial questions (“Have you ever felt different? Lonely? Ashamed?”) while integrating multiethnic photographs to symbolize these questions. A rendition of “Over the Rainbow” played as background music and passages from the text were lifted and cited to connect the questions, images, and music. All of the I-Movies used images, namely pictures or artwork to represent themes encountered in the young adult novel.

The candidates who created the I-Movie also successfully connected literature and technology by using the media to present critical insights about the book. The feedback provided by instructor on the rubric for one candidate who read the book *Cut* by Patricia McCormick, stated:

> This was a well organized and meaningful presentation. A clear rationale and focus were evident throughout the presentation. Effective use of questions to guide the audience through the presentation...keeps the audience engaged and prompts the audience to consider their preconceived notions about some of the issues being addressed...and hopefully change those perceptions by the end of the video. Effective images were used to communicate diverse perspectives of the issues in the book and beyond the book. It moves “literacy” to...[the] idea of critical literacy – beyond the text to a stance where readers examine ideas of social justice and social action in the world through interrogation of social practices. Outside research was integrated throughout the presentation...this provides an example of how students can use a self selected text to springboard into a research project about something they learned in the book and subsequently share that with the class through a multimedia presentation (where they talk about the research and other processes used to create the project along with what they inferred from the novel.) Once again... moving beyond the book. Very well done.

Feedback on another media project provided to another candidate, who read the book *Ask Me No Questions* by Marina Budhos was:

> Very creative and well organized presentation. Effective use of first person to tell the character’s story. Also effective to use a central element of the character’s heritage – the scrap book – and modify it through use of the media. Images were used to depict the character’s traits and development through the narrative rather than emphasizing themes of hidden messages being communicated by the author.

Faculty also provided feedback to candidates which offered recommendations on how they can enhance their use of media during their presentation. On one rubric the faculty member wrote:

1. The words (text you wrote) could have faded in and out to save time and move the video along faster. Although it was clear that the timing was integral to allow the “audience” enough time to read the text, it was rather slow at times. Also although you focused on 2 characters, because of the integral connections between characters (based on your summaries) a list of characters at the beginning of the presentation might have been helpful...to enhance the meaning and significance of the video.

2. Recording the narrative as a voice over might have been even more meaningful.
Benefits of Using Media Literacy Projects with Teacher Candidates

The media literacy projects generated interest and engagement, included research and writing components, encouraged group discussions, and required multiple literacy skills. Each faculty member assigned a similar assignment that yielded varying levels of sophistication in products created by teacher candidates because it warranted different degrees of critical, technology, and information literacy skills. In addition, using media literacy projects develops problem solving and interactive collaboration skills among students and enhances learning, where learners worked together to increase peers’ understanding of technology software.

Creating media projects fostered opportunities for teacher candidates to use multiple and diverse sources of information, multiple viewpoints, and diverse content to express and communicate ideas to a viewing audience. To successfully complete this assignment, teacher candidates evaluated electronic resources to select appropriate media to represent the themes and issues in the text. While interacting with different sources, teacher candidates engaged in literacy practices such as note taking and synthesizing information from a variety of sources, cut and paste pictures and other media from the Internet.

The media literacy projects created by teacher candidates identified interdisciplinary ways to connect a central topic through art, music, and literature that is embedded in the media. We found that the teacher candidates used various literacy practices when interacting with similar products, namely make inferences through pictures, art work, and cartoons.

Similar to findings by Jones and Moreland (2004), we learned that the teacher candidates’ use of technology was influenced by their knowledge of technology. Those teacher candidates’ with prior knowledge of technology and knowledge of creating media projects (whether they knew about the tools prior to entering the teacher education program or through coursework and assignments in the program) played an important part in their use of technology. The sources used to create the literature circle products varied and required teacher candidates to use a variety of technology skills. Products developed by the teacher candidates in the three courses suggest that K-12 teachers would have to know how to teach their students information literacy skills, be able to help K-12 students search the Internet for resources, and help K-12 students use I-Movie and PowerPoint software.

Conclusions

First, teacher candidates should learn how to engage students in a variety of literacy practices through the use of I-Movie technology. For example, completing an I-Movie requires that learners conduct research via the Internet to examine a wide variety of sources, make judgments about the appropriateness of those sources, and subject disciplines in order to express their personal response to the text. By creating I-Movies learners can adopt a critical stance, through their selection of certain material and have the opportunity to share their perspectives about issues encountered in text by using this medium to respond to literature.

Secondly, teacher educators should provide opportunities for teacher candidates to create their own media. According to the Partnership for 21st Century Skills (2004) 21st century tools such as technology should be used to foster learning. When learners create media literacy projects such as an I-Movie, they are being challenged to share their views on the books they read and use media to talk about the issues and themes that emerge in the books. The projects created by teacher candidates can be used as learning objects for K-12 students. Teachers can use their work created in teacher education courses as models for their K-12 students. In addition, media literacy projects such as those created by our teacher candidates can be used to
Multimedia Projects

supplement discussions about literature and can replace traditional forms of book reports so that learners are now required to use multiple literacy skills, namely technology, and media. For example, this kind of assignment will require that learners use PowerPoint, music videos, and/or I-Movie to create an oral presentation about a self-selected or group text. To prepare students for this assignment, teachers should provide students with a tutorial on how to use the software. If the teacher does not feel proficient in the software he or she can call on students in the class who are proficient in the software to provide the class with a tutorial.

Using media literacy projects is one way to enrich the literacy experiences of learners, and enhance their interaction with text and their responses to text through use of technology. It also fosters opportunities for learners to use technology to develop critical and information literacy skills through meaningful learning experiences (Berrett, 2006). A review of previous research suggests a natural link between media literacy, and teacher education that come into play when technology is used as a teaching and learning tool. Research suggests that merging these areas is one way teacher educators can foster technology literacy in their courses (Kay 2006; Mims, Polly, Shepard, & Inan, 2006). Through their use of technology, the teacher candidates and university faculty transitioned from consumers of knowledge to producers of knowledge by creating their own media literacy products. Although media literacy projects should be integrated into the curriculum at all education levels as stipulated by state standards, using these kinds of media literacy projects might help K-12 teachers improve their basic understanding of video production techniques so they can use the media and technology more effectively in their K-12 classrooms.

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