

# Chapter 16

## Writing Remixed: Mapping the Multimodal Composition of One Preservice English Education Teacher

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### ABSTRACT

*This case study describes the creation of a digital multimodal poem by Mara, a preservice English Education teacher at a large state namesake university located in the Southeastern United States. Drawing on sociocultural perspectives broadly and New Literacies Studies specifically (Gee, 2012; Lankshear & Knobel, 2003; The New London Group, 1996), this study uses multimodal discourse analysis (Jewitt, 2006; Lemke, 1998; O'Halloran, 2009) as a tool to analyze how one preservice teacher's multimodal composition affected her concept of new literacies. To investigate what Mara learned through the multimodal composing process, the authors analyze three sources of data: a) Mara's multimodal composition, b) Mara's written reflection about her composing practices written immediately after she had created her multimodal composition, and c) a ninety-minute interview with Mara using photo-elicitation techniques. Findings indicate that multimodal composing practices can potentially take advantage of the relation between cognition and affect, and do so using cultural means of codification that are both inscribed by textual authors and encoded by acculturated readers. Such experiences and affordances of electronic devices, a trend that is likely to grow as technology continues to advance and become pervasive in the lives of succeeding generations.*

### INTRODUCTION

*I had to approach this project by seeing the two 'texts' as two separate but intimately connected art forms. - Mara*

I (first author Lindy) started teaching my writing methods course in the same way I started my ninth-grade English Language Arts classes in Boston: with the "I am from" poem assignment, a form poem that uses George Ella Lyons' poem, "Where

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I'm from" (see <http://www.georgeellalyon.com/where.html>), as a mentor text for students to reformulate with details from their own lives to reflect on how their experiences have shaped their identity. I used this assignment as a way to start building a community of writers, to show what I mean when I talk about a *writing workshop*, and to get to know a bit more about students' lives and backgrounds.

When I introduced the assignment to my pre-service writing teachers, there were audible groans from the room. "I hate writing poetry," lamented Julie. "I don't know how to write poems," said Katie. "Are you serious?" asked Maggie. (All names are pseudonyms.) I was a bit surprised to come up against such resistance from future English teachers, but I pressed on. After the class analyzed the content and form of Lyons' poem, the students wrote their own poems in class. At the end of the class I asked if anyone were willing to share her poem, or even a line or two. Three students raised their hands, but the rest were reticent. Many students struggled with how to end their poems, or how to make their poems "good," but all were able to come up with a poem—however cursory it might have been.

The next week I had the students create a multimodal version of their "Where I'm from" poem in which they could add images, music, or a voiceover to their poem, deleting or revising their poem in any way they saw fit. I showed students a few tools such as Animoto and taught them how use Google Images. Though my students are considered by many to be *digital natives*—those who have grown up with electronic devices and so consider them a normal part of life—they reported that they had limited experiences with digital writing aside from using social media on the Internet, and had less knowledge of Web-based tools for digital composing than their instructors, who were all in their thirties.

The next two weeks students worked on their multimodal poems at home. Some students spent

all weekend working on their poems to get them "just right." The day the multimodal poems were due, I asked if anyone were willing to share their composition. To my surprise, every hand—all 24—went up.

Several students had created multimodal poems that included original music. Jenna's poem, for instance, was accompanied by her singing and playing guitar, and pictures of friends who held sheets of paper that said, "I'm from . . ." Other students had gathered videos from their early childhoods: performing gymnastics, singing in a children's choir, at the beach. One student had overlain an original song written and performed by his father (a musician) with black and white video footage of himself as a young boy. Another had composed an original song to accompany his poem, and then juxtaposed his playing the bass with video of him speaking his poem.

After seeing about half of the multimodal poems, and then responding in writing to the authors, several students insisted that we show and discuss each production. The multimodal poem of one student in particular, Mara, stood out as producing an especially strong emotional reaction, including tears, from many of her classmates. Many students said that Mara's poem was their favorite and that it stood out as being especially powerful. To better understand what it was about Mara's poem that made it so emotionally impactful, I enlisted the assistance of second author Peter Smagorinsky, and we asked the following questions about Mara's composition:

1. What aspects of Mara's poem contributed to the effect that it had on her classmates?
2. What are the different semiotic resources Mara drew on to compose her multimodal poem?
3. How did these semiotic resources work together to create a composition that produced an emotional response from Mara's classmates?

4. How did creating this multimodal composition affect Mara's thinking about her own teaching of writing?

## THEORETICAL FRAMEWORK

Drawing on sociocultural perspectives broadly (Bakhtin, 1981; Vygotsky, 1987) and New Literacies Studies (NLS) specifically (Gee, 2012; Lankshear & Knobel, 2003; The New London Group, 1996), this study uses multimodal discourse analysis (Jewitt, 2006; Lemke, 1998, O'Halloran, 2009) as a tool to analyze Mara's multimodal composition. Before the NLS movement got traction in the 1990s, semioticians had explored multimodal meaning potential for many decades (e.g., Lotman 1974). Adopted in the 1980s by Suhor (1983), Harste, Woodward, and Burke (1984), and others, a semiotic perspective on literacy is based on the notion that every human construction is a text that is composed of signs, and therefore has a meaning potential to be constructed by its readers.

What NLS scholars see as different about their work is the affordance of multimodality through digital technologies, which were not available to semiotic pioneers from earlier in the 20<sup>th</sup> Century. These new and rapidly advancing technologies have altered the landscape of communication, making it more participatory and more multimodal, at least from traditional perspectives of literacy that limit it to reading and writing. The new media environment has challenged the "old logics of literacy and teaching" that are bound to disappoint "young people whose expectations of engagement are greater" (Cope & Kalantzis, 2009, p. 8).

In this paper, we focus on multimodality as a central feature of new media. Multimodality draws heavily on sociolinguistics (Cope & Kalantzis, 2003; Kress, 2003; Lemke, 1998) and discourse theory to develop a social semiotics for analyzing meaning. The process of design or composition in the digital age draws widely on multimodal mate-

rials and resources. In thinking about multimodal texts, it is helpful to use the idea of design (The New London Group, 1996) or composition (Smagorinsky 1995) to conceptualize the vast array of choices that an author confronts in producing a text (Hull & Nelson, 2005).

Kress and Van Leeuwen (1996, 2001) and Jewitt (2011) consider the affordances of different semiotic resources. Jewitt (2011) describes several assumptions that underpin the theoretical work surrounding multimodality. First, language is part of a multimodal ensemble that comprises the *intermediality* that involves the synthesis of various literacies needed to navigate the complex 21<sup>st</sup> century world (Elleström, 2010). Second, each mode does different communicative work. Third, people inscribe meaning through the selection and interaction of modes that, within the interpretive practices of a community of readers, enable both author and reader of the text to approach it with a similar understanding of how it is coded such that they are *in tune* with each other (Nystrand, 1986). Finally, the meanings of signs are shaped in specific social contexts (Jewitt, 2011).

Multimodality is also used to investigate the relations among modes, such as the interactions between language and image. Digital technologies enable sound, image, and movement to be communicated in new and significant ways (Black & Steinkuehler, 2009). Students and teachers co-produce notions of ability, resistance, and identity through their multimodal interactions. The need to rethink what it means to learn and to be literate motivates much multimodal research (Jewitt, 2011).

Jewitt (2011) emphasizes that it is essential to explore all modes in the classroom because how knowledge is represented shapes both the content of what is to be learned, and how it is to be learned (Wilson, in press). While multimodality studies provide a framework for analyzing multiple modes, they lack a theory of learning. Siegel and Panofsky (2009) argue that sociocultural theory goes further than a NLS approach to multimodality in exploring the creativity of semiosis. A

sociocultural perspective emphasizes the connection between cognition and affect, and locates meaning not solely in textual inscriptions but in relationships among members of communities of practice who share understandings of cultural coding (Smagorinsky, 2001). Hull and Nelson (2005) draw on Vygotsky's (1987) belief that meaning is a dynamic system where the "affective and the intellectual unite" (Vygotsky, p. 10). They argue that digital multimodality, including personal narratives, may potentially make that relation more explicit, given the relative ease with which music and images may be recruited to provide emotional qualities that young writers have difficulty putting into words.

We are interested not only in multimodal composition as a semiotic resource, but also in the way that incorporating multimodal composing opportunities allows teachers to reimagine how instruction and learning might play out in their own classrooms. Instructional planning can be understood as a process of composition and construction (Smagorinsky, 2008) that builds on the resources that students bring into the classroom, including those that are multimodal. Even though semiotic modes may seem to encode the same content, they are experienced by the viewer in different ways. Pictures, for example, are experienced with an ordering principle that is spatial and simultaneous, where linguistic texts are typically organized and experienced temporally and sequentially (Hull & Nelson, 2005). Each mode, then, can potentially suggest certain meanings more easily than others, depending on the interpretive communities from which participants emerge.

In addition, each mode can be combined with other modes in endless arrays. Lemke (1998) argues that this combination of multiple modes forms a "semiotic complementarity" principle that "shows us how we can mean more, mean new kinds of meanings never before meant and not otherwise mean-able, when this process occurs both within and across different semiotic modalities" (p. 93). These capabilities have been available for millennia. The difference now follows from the

capabilities of digital technologies, which afford a range of constructive capabilities never before available, in that computer programs allow users to build virtual objects relatively quickly and easily, rather than requiring manual labor to construct corporeal products.

While much theory suggests how pedagogy might better reflect this new media environment, there has been little transformation in teacher practice. Even Cope and Kalantzis, original members of the New London Group (1996), have conceded that since the original work on multiliteracies was published what's been happening in schools, is "depressingly, not much" (2009, p. 16). Some critics have argued that NLS has failed to problematize the tension between new literacies and institutionalized practices, and have not considered "the broader social, cultural, and political ecology within which schools exist" (O'Brien & Bauer, 2005, p. 126), a problem often identified when seemingly provocative new ideas fail to take hold in their intended environments (Cohen, 1989). Researchers in teacher education have shown that broader social and cultural ecologies play a pivotal role in mediating how teachers learn to teach, including the problem that what preservice teachers learn in their university coursework often plays a small role in how they actually teach (Smagorinsky, 2010). Researchers have identified a number of reasons why teacher education programs seem unable to change teacher practice in significant ways, including the multiple and competing *centers of gravity* in learning to teach (Smagorinsky, Rhym, & Moore, 2013), the pressures to teach to assessments imposed from the outside that typically conflict with values emphasized in teacher education programs (Johnson, Smagorinsky, Thompson, & Fry, 2003), and the abiding influence of the deep grammar of schooling (Lankshear & Knobel, 2003).

Amidst this rather dim view of the possibility of change in teacher practice and student learning (see Smagorinsky, 2010), there still remains some hope that teachers and schools can change. O'Brien and Bauer (2005) point to preservice teachers as

possible agents of change who are increasingly likely “to engage their future students in these [new literacies] same practices. But without the support of teacher educators and mentor teachers who also have insider knowledges of these new literacies practices . . . future teachers may not get the start they need in their courses, field experiences, and initial teaching experiences to change the [Institutions of Old Learning]” (p. 130). The Conference on English Education (CEE) position statement on Technology and the Preparation of English Teachers, while acknowledging the importance of incorporating new literacies into teacher education, also recognizes the challenges that come along with this change:

*Many teacher educators do not have access to newer technologies, and, if provided access, will also require professional development opportunities that allow them not only the opportunity to learn functional aspects of the technology, but also opportunities to think critically about pedagogical concerns (with whom, when, where, how, why, and to what extent to use them), and about the intellectual, social, cultural, political, and economic impact of using them. (Swenson, Rozema, Young, McGrail, & Whitin, 2005, p. 219).*

The discipline of secondary school English has historically been comprised of three strands: literature, writing, and language (typically, grammar). However, the domain has been heavily weighted from inception toward the teaching of literature over the other major strands, as documented by Applebee (1974), Willinsky (1991), and Tremmel (2001). The language strand, chiefly in the form of direct grammar instruction, tends to be taught discretely and ineffectively (Hillocks, 1986); and students’ writing serves predominantly to advance literary understanding and is not informed by teachers’ robust conceptions of writing pedagogy (Hillocks, 2006). This problem has been exacerbated, according to Tremmel, in English education programs, which are literature-oriented. Learning

to teach writing has thus been an underserved aspect of the preparation of secondary English teachers.

Although multimodal instruction has been much-promoted in scholarly writing, in teacher education programs it has gotten only marginal attention as a sideshow to writing instruction, itself underserved. While researchers such as Doering, Beach, and O’Brian (2007) argue that “Preservice teachers need to know how to help students learn to employ interactive Web 2.0 tools and to create social contexts that foster effective use of these tools” (p. 42), their research focuses on the innovations within their own teacher education program at the University of Minnesota. But it is unclear to what extent other teacher education programs in the US and other countries integrate a similarly conceptually-unified approach to incorporating new literacies studies.

Media studies have made inroads, and libraries have been reconceived as media centers, yet attention to multimedia composing process has been minimal in teacher education, taking a back seat even to writing instruction aside from assignments to re-depict an idea from one medium to another (see, e.g., Suhor’s (1983) notion of *transmediation*). A challenge for teacher educators, then, is to proceed with theoretical and practical innovations that require adaptation to the persistently stable institution of school, and to do so in ways that promote their durability in teachers’ instructional tool kits.

## CONTEXT

The data for this study were collected from August-December, 2012, in an undergraduate English Education course called “Teaching Writing in the Secondary Classroom.” The course was taught by the first author (Lindy) at a state university with the Carnegie classification of *doctoral/research universities-extensive*, located in the Southeastern United States. The teaching writing course was

a requirement for all pre-service English Education teachers (from here on referred to as *PTs*). As part of the course, PTs were asked to consider the pedagogical implications arising from the emergence of new technologies and were assigned a variety of multimodal compositions including blogs, digital stories, and wikis.

In this case study, we focus on Mara, a white, monolingual female from a low SES background. Mara's story was chosen because a number of PTs in the course said that Mara's poem stood out to them as a particularly powerful and emotional composition. The emotional impact of this poem was especially compelling because it was the first time that Mara had ever shared anything about herself in class. And in fact, she later explained that her classroom silence was typical of her demeanor, dating back to a speech impediment in her childhood. Further, her composition drew on all the different modes in such a way that it had a palpable effect on her fellow students, who also appeared surprised that such a quiet and withdrawn student had created such a powerful composition.

Mara's case illustrates the potential of multimodal composition, especially for students who don't often express themselves in class in traditional ways. We offer Mara's case not so much as typical, but as a compelling illustration of the potential of multimodal composition, especially for students who don't often express themselves in class in traditional ways. Her case also suggests how education faculty can include multimedia composing in their instruction to model how to use it pedagogically.

## METHOD

The data for this study included Mara's multimodal composition, Mara's written reflection about her process of composing her multimodal poem, and one ninety-minute interview using photo-elicitation techniques (Harper, 2002). During the interview, Mara and the first author watched

Mara's multimodal composition together, stopping to discuss each frame. Harper argues that photo elicitation interviews differ from interviews that use words alone because images "evoke deeper elements of human consciousness than do words" (2000, p. 13). Harper writes that "when two or more people discuss the meaning of photographs they try to figure out something together" (2000, p. 23), a process adopted for this study.

O'Halloran (2011) argues that the multimodal digital environment lends itself well to drawing upon different traditions of analysis, "including 'mainstream' and social semiotic traditions, as well as other traditions such as media studies, to interpret dynamic audiovisual media texts in a critically self-reflexive manner" (p. 109). We have found this flexibility to be helpful in our work on analyzing preservice teachers' multimodal compositions. We are not only interested in the various modes of representation they draw on, we are also interested in how drawing on multiple modes may enable preservice teachers to develop a richer concept of new literacies, specifically multimodal composing, that may contest the entrenched practices of the school settings in which they teach.

We employed tools of Systematic Functional Linguistics to analyze Mara's composition. The three metafunctions that Halliday (1993) identifies are useful conceptual tools for analysts to map the possibilities, combinations, and meaning potentials of different modes (Jewitt, 2006). Hull and Nelson (2005) argue that the combination of modes "is the most crucial conceptual tool that one must bring to bear in understanding the workings and meanings of multimodal texts" and assert that researchers need to investigate "how to locate and define the deeper aesthetic power of multimodal texts" (p. 229), to which we would add that the power comes through the engagement of readers with texts rather than being inherent properties of texts themselves, as our acknowledgement of the intentional fallacy—the focus on authorial intent, irrespective of what readers bring to it, as the sole

## Writing Remixed

or primary source of meaning in a text—would suggest (Wimsatt & Beardsley, 1946). The NLS emphasis on textual inscription appears to violate this tenet in much of its scholarship, making it prone to the same criticisms that have dogged New Criticism for many years (Smagorinsky, 2011).

We first created a multimodal horizontal transcript (Martinec, 2000) in which time runs from left to right and each mode is given a row of the score such that the transcript “introduces the visual analogy of the ‘orchestration of modes’; the ‘rise’ and ‘fall’ of modes in the multimodal ensemble” (Jewitt, 2006, p. 38). To create our horizontal transcript (see Figure 1), we watched Mara’s composition multiple times. Because the images seemed to stand out as a central component, we placed the image at the top of the *score* to indicate their primacy. In descending order, the subsequent rows describe the image, provide the appropriate text from the poem, quote Mara’s voice over or *script* of the poem, and indicate the time elapsed.

After creating this transcript, we began looking for patterns within single modes, beginning with images. We identified movement between images of local and global and images of planes and other military accoutrements. We then focused on the concept of *cohesion*, which is achieved by means of lexical chains that run through and are

linked within a text. The horizontal transcript helped to focus our analysis on how cohesion is achieved through the combination of images and words, the organization of the slides, and the unexpected juxtaposition of this patterning. There are several places in the poem where an image stands in for written text and helps to achieve cohesion. After dividing Mara’s poem into major sections (see Appendix), we began to search for strings of lexical relations in order to identify the major themes in Mara’s poem. After identifying strings of lexical relations, we identified four main themes: global landscapes, local spaces, flying, and literacy practices (see Figure 2).

## FINDINGS

Mara’s one minute and 56 second composition included a series of 49 images, 3 slides (text with movement), and the voice over of her “I am from” poem. She drew on a variety of semiotic resources: sound, written text, space, color, images, ordering of images, juxtaposition of images, and other means of inscription that depicted her and her family in a variety of landscapes. In the mentor text, George Lyon’s “I am from” poem, cohesion is achieved through the lexical chains associated with trees (e.g., leaves, roots). Simi-

Figure 1. An excerpt of the horizontal multimodal transcript

Image				
Description of image	Picture of Mara with sisters	Picture of Mara and dad in a living room	Picture looking out barred windows	Color/text slide
Written Text	I am from		Barred windows	Blank white walls
Mara’s voice over	I am from creaking floor boards		Barred windows	Blank white walls
Time elapsed	0:00-0:04	0:04-0:05	0:05-0:06	0:06-0:08

Figure 2. String of lexical relations

Theme	Strings of Lexical Relations	Images
Global landscapes	forests, glaciers, open land, the whole world	
Flying	Airplane, hangers and cockpits, tail winds and turbulence, airport jungle gyms, a flipswitch and a flight clearance away.	helicopter, cockpit, airplane hanger
Local	creaking floor boards, barred windows, blank white walls, holes patched with toothpaste, close quarters, mason jars, homemade laundry soap, maters and taters, constant scraping, pattering, screaming, hammering, living of the residents above	Barred windows, tomatoes,
Literacy practices	Words, and phrases, tear-stained pages, Line after line, and notebook after notebook, Where the rubble of Hogart's castle and himmelstrauss, Hold the lives of ones I dearly loved	magnetic poetry, books, Mara's notebook, Mara writing,

larly, Mara's poem achieved cohesion through the word choice and repetition related to flying and airplanes. Even though in the linguistic version of the poem Mara didn't refer to airplanes until more than halfway through, in her multimodal poem she introduced a picture of a helicopter flying over mountains to accompany the line "I'm from snow covered mountains." In the mentor poem, Lyon first introduces her theme of trees in line 6; Mara presented the helicopter in line 5. Mara drew on the form of the mentor text, but used images to create cohesion.

Mara began with a picture of herself as a youth with her siblings, accompanied by "I am from creaking floor boards, barred windows, blank, white walls, where the holes are patched with toothpaste." These images of the barred windows and the color/text slide contribute to a bleak tone, yet the poem then shifts gears to show a helicopter flying over snowy mountains, accompanied by Mara's voiceover: "I'm from snow covered mountains." The next three slides show images of Mara in a variety of global locales: riding a camel in the desert, climbing on glaciers, and standing in a forest. This initial movement from the cramped local spaces to wide open global spaces is a distinguishing feature that continues throughout Mara's poem. After a description of

the global travel, she shows an elderly woman canning food, accompanied by the lines "from Mason jars/and homemade laundry soap." This semiotic patterning between the local and the global creates cohesion in the poem while also adding to the "semiotic complementarity," one that suggests "new kinds of meanings never before meant and not otherwise mean-able" (Lemke, 1998, p. 93). In her interview, Mara explained,

*I could have made it a lot different if I had included a lot different experiences. So, it was really interesting to choose how I wanted to represent where I was from. Not like it was false, but what "tone" to use a poetry word. . . . I knew as I was writing that I wanted to portray that I am from a lot of different places, and a lot of different things. . . . I felt like my poem was pretty positive all the way through. But, I've also been through a lot. I have a lot of negative experiences I could have included. But, there are like hints of that there. The barred windows.*

Mara made conscious decisions about how to best represent herself through repeating patterns of the global and local, and through both positive and "hints" of negative experiences. While it would have been easy for Mara to focus only on the global

locations she traveled to while growing up in the military, she also chose to divulge her Southern roots. Mara's interview revealed that she wanted to depict herself in an honest way, using primarily photographs taken by her or her family. Her goal in doing so was to make the composition "more authentic. Like if I didn't have a picture for that, I'd come up with a different idea. I feel like if I used pictures from other people, or ones from the Internet, it would be less me."

### **Creating Emotion through Interrupting Expected Patterns**

As noted earlier, analyses of multimodal compositions often draw on musical metaphors to better understand the affective dimension of these compositions. While music played a large role in almost all of the PTs composition, Mara did not include music. Instead, her audio included a voice over of herself reading the poem; the quality of her voice, its intonation, and its human quality all contributed to the power of the composition. Her voice became the music of the composition. Just as music is composed of organized sound, a poem involves a cohesive set of lexical chains. Music, argues Levitin (2006), "communicates to us emotionally through systematic violations of expectations" (p. 172). Without this element of the unexpected, music can become flat and robotic. This principle applies to multimodal compositions as well. Mara's composition relies on the interruption of expectations. For example, section 14 (see Appendix) begins with the image of looking through a car windshield out onto a vast mountain range, and is accompanied by the voice over, "I am from road trips." The next three slides follow a very similar pattern of an image of "Welcome to . . ." state signs in Iowa, South Dakota, and Colorado. Each of these images is accompanied by Mara's voiceover, "and box/after box/after box."

On the last slide of this section, Mara keeps the pattern of the voiceover "after box," but instead of combining the text with an image of the state sign, she combines the text with an image of a large pile of moving boxes. This unexpected juxtaposition appears designed to create an element of surprise for the viewer while also echoing the major theme of moving from local places to global spaces. Mara remarked that this section of her multimodal poem was the one she felt "came across really well." She said,

*We had all these pictures of [my family] in front of different state signs, and I thought, this is perfect. But, I didn't want to just do that, so the combination of the state pictures and the boxes got at that idea. That part was the part I liked the most. I thought it came across really well. I played around with how many times I would repeat "after box, after box, after box." I didn't want to do it too many times, but I wanted to make the point that it was so many times. I've lived a lot of places.*

While Mara could have continued the pattern of placing state pictures with her voice over of "after box/after box/after box," she felt that this arrangement likely would not have produced the same emotional response that the unexpected interruption of the combination of images and text created for her classmates.

While the majority of students (18 out of 24) had chosen to use Animoto to create their poems, Mara had chosen to use Windows Movie Maker (WMM), a tool that allowed her more choice and autonomy in her composition. Because Animoto limits the user's choice, many of the students' compositions had identical background images and musical tracks. The autonomy of using WMM as a composing tool seemed to have a direct effect on Mara's ability to create an emotionally impactful composition.

## DISCUSSION

A sociocultural perspective emphasizes the connection between cognition and affect. Multimodal composing practices can potentially take advantage of the relation between cognition and affect, and do so using cultural means of codification that are both inscribed by textual authors and encoded by acculturated readers. Mara's multimodal poem served as one moment of awakening in her recognition of the potential of digital composing in schools settings. We are not claiming a cataclysmic shift in her thinking, but rather the opening of a new instructional pathway that had not dawned on her before. In the setting of her preservice writing pedagogy class, she drew on a variety of semiotic resources in composing her poem, and her composition process was inextricably intertwined with how she wanted to represent herself and her emotional experiences. If McLuhan's (1964) argument about the relation between message and medium is applicable, then one's choice of textual medium contributes to the development of the messenger in terms of meaning-making and identity (Kress, 2010). Mara's story speaks to this conception of self and has "much to do with how and why we learn; the desire to acquire new skills and knowledge is inextricably linked to who we want to be as people" (Hull & Katz, 2006, p. 43).

This conception of self, as Mara's interview suggests, has a strong affective dimension, an aspect of writing that has received only marginal attention in composition research (Smagorinsky & Daigle, 2012). Hull and Nelson (2005) draw on Vygotsky's (1987) belief that meaning is a dynamic system where the "affective and the intellectual unite" (Vygotsky, p. 10). They argue that digital multimodality, including personal narratives, may potentially make that relation more explicit, given the relative ease with which music and images may be recruited to provide emotional qualities that

young writers have difficulty putting into words; at the very least, opening up students' expressive and representational tool kits will give them more avenues for exploring and constructing meaning, including that which concerns emotional life. Mara expressed a great deal of emotion as she talked about creating her composition. She spent "days and days" working on her multimodal poem, explaining this dedication by saying,

*I loved it! The whole time I was doing it I was texting my friend, "Is it okay that I'm like really, really, really loving this project that I'm doing right now?" It wasn't a work project. It was like, "This is really fun!" And, I was trying to make it perfect. And the fact that it was so personal and poetry. I love poetry. But the fact that it was so personal and that I was getting to represent myself, and make it about me.*

Mara found emotional satisfaction through both her composing process and the feelings she was able to depict through her text; we have also found such dedication and fulfillment in high school students using non-digital, yet multimodal, composing tools such as paint on identity masks (Zoss, Smagorinsky, & O'Donnell-Allen, 2007). She also expressed a great deal of emotion when she talked about the experience of sharing her multimodal poem with her classmates. She said, "Everyone else's [poem] was like 'Yeah! This is great!' They were more shocked. Like this was more powerful. And, not saying that my poem was like, so great, but there was a completely different atmosphere. It was a completely different kind of poem." When asked to recall her classmates' reaction to her poem, Mara said,

*Almost all of the feedback said that they loved that I had read it. They could really hear it—the emotion in my voice—and most people said that it*

## Writing Remixed

*was really powerful. And that there were specific lines that they really liked. Like when it got quieter, my voice got quieter. . . . I had a bunch of people come up to me after class and say “Yours was my favorite!” . . . . I wasn’t expecting you to like it as much either. I think I went home and was like, “My teacher liked my poem!” I was freaking out. And, I still have your sticky note.*

Such feelings of emotional reciprocity are not exclusive to multimodal compositions, as other studies from our work have demonstrated; writers of conventional linguistic texts may also experience such exhilaration when they are personal in nature (Smagorinsky, 1997). What the composing of the PTs in Lindy’s class suggests is that such experiences may be more readily available to digital natives who are conversant with the affordances of electronic devices, a trend that is likely to grow as technology continues to advance and become pervasive in society.

By using multiple means of representation, Mara was also able to draw on both her everyday life and academic concepts associated with composition. Creating this multimodal composition may have helped increase the “interplay” between these two conceptual fields, thus leading to a richer conceptual development (Vygotsky, 1987) of literacies. Developing a richer conception of literacy, specifically multimodal composition, may in turn help Mara to think in new ways about how to teach writing to her future students. For example, in her written reflection, Mara wrote,

*At first, even though I am a proponent of multimodality, I was a little apprehensive. I love poetry, and I actually liked the poem I made. I did not want to alter it at all, and in order to truly make this project work, I had to. I had to lengthen it. I had to adjust it. Suddenly, I had so much more to think about than just how the words looked and sounded on a page. . . . I had to think about things like when I would use text and how I would use it. What font? What color? What size? How would it appear on the screen? Where would it appear on*

*the screen? What pictures would I use? If I used picture and video, how would I tackle the more abstract or difficult parts of the text? All of these questions added layer upon layer to the amount of critical thinking and decision making that this project required. From the bigger picture of the overall style down to the minute specifics of the exact timing between audio and visuals. (this took substantially more time and thought than the original assignment).*

Mara said that because of the powerful experience she had with this assignment, she wanted to use it with her own students. At the time of the interview, she had made tentative plans to do some kind of multimodal research project with her students, and was optimistic that working with other PTs in her cohort would help her think through some of the logistics. She said, “Especially working with the group, I think it will definitely help me think through how to scaffold and support it. . . . I would definitely like to [incorporate a multimodal composition project]. I thought it was awesome.”

While Mara wanted to incorporate multimodal compositions into her classroom, she remained apprehensive because she had not seen this kind of instruction in her mentor teacher’s classroom:

*I would like to. I’m a little bit apprehensive about doing it just because I don’t think [my students] have ever done anything like that before. That’s a really bad excuse for not teaching it. Especially with the culture of Mountain View High students needing a lot of structure and scaffolding, I’m just, I’m a little bit anxious about how they would do with it. And, they’d also have to do it all in class which is something I’d have to work out. And, before they wouldn’t have had the technology but now they have netbooks.*

Mara’s ambivalence about teaching through multimodal texts suggests that moving from university classroom activity to school teaching practice might require more scaffolding than is

typically provided, given that the culture of the university and culture of the school emphasize different textual values. This conundrum illustrates what Feiman-Nemser and Buchman (1985) called “the two world’s pitfall” that characterizes the gap between universities and schools in what they value. This gap tends to refer to differences in what counts as good teaching as conceived in the two settings, but could also apply to differences in time and resources between the two institutions. For instance, in one of our local schools, all ninth-graders have been issued small laptop computers, but teachers have not been given additional training or inservicing about how to use them meaningfully to further their instructional goals. Teachers have approached us hoping for help in how to use digital media in their teaching, given their familiarity with our work in this area, suggesting that technological innovation cannot simply be administered but must be accompanied by broader shifts in both conceptions of how to teach and knowledge of how new tools may both fit within and advance existing approaches.

### **Implications for Policy and Practice**

Our study suggests three main implications for teacher educators who are interested in sustaining their teacher candidates’ implementation of technology.

#### **Providing Ongoing Support**

The use of technology in schools has an uneven history. Even today, teachers from our teacher education program report that they find little support for technology-based instruction in the schools to which they are assigned, even when the schools invest in computers and tablets. Buying technology without providing cutting-edge training in how to use it typically results in equipment going obsolete before it finds curricular integration or, in many cases, usage in individual classrooms.

Getting teachers to sustain technology-based practices, therefore, requires a deliberate effort.

This initiative includes providing more scaffolding and modeling and building stronger school-university partnerships. Mara is doing her student teaching in a school that has recently invested in Netbooks that are only being used primarily as word processors. We are continuing to work with Mara to help her incorporate multimodal composition in her classroom. When we talk with her about implementing this kind of instruction, she says that she “needs direction and ideas,” given that the intended use of the Netbooks is vaguely to help students with their schoolwork, without accompanying training in how to employ them toward that end. She also has expressed concern that her students “can’t handle it.”

We do not describe her request patronizingly, as is often the case when university-based teachers refer to teachers’ levels of knowledge, but rather to demonstrate that even presumed digital natives have had few models for integrating technology and, at least early in their careers, reach out to those who might provide assistance, with their university instructors serving as trusted and proximal sources of guidance. To help her get a handle on how to use technology, we are helping her develop a multi-modal research assignment for her ninth graders, using an apprenticeship relationship given the fact that her colleagues similarly have limited facility with new technologies. Although this assistance requires a great investment in time, it provides the primary means through which we can help Mara extend her campus-based learning into her own classroom.

#### **Selecting and Using Appropriate Technological Tools**

As society increasingly offloads more cognitive work to machines, teachers and teacher educators should exercise some caution before unilaterally or uncritically adopting software or applications in their teaching, as the storerooms of unused and increasingly obsolete technology in many schools attest. Even with widely-used software, the products created with them may lose some of their

value, because anyone and everyone can produce animations and so on that have a similar look and action. In other words, when the market becomes flooded with Animoto videos, those videos lose some of their cachet because of their ubiquity and the fading excitement over their inevitably limited capacity for enabling creativity. When the PTs were assigned this multimodal assignment, they were encouraged to use whatever platform they were most comfortable with. Most of the PTs were not familiar with Windows Movie Maker or iMovie, so chose to use a software with an easy learning curve in order to more quickly experience the process of multimodal composing.

However, after discovering that the PTs had little to no experience using digital story software, first author Lindy encouraged them to use Animoto because of its ease of use. What we did not anticipate was how using Animoto would so limit the decisions of the PTs in their composing processes, and ultimately lead to compositions that were remarkably similar in their format and thus did not stand out as original, powerful compositions. While Animoto quickly produced slick productions, the variety of choices they had was greatly limited. PT's could choose from a variety of 10 backgrounds, and 10 songs. Yet Mara repeatedly emphasized the importance of having ownership and control over her composition; she was able to achieve this authenticity through using her own photographs, and using Windows Movie Maker, which provided her with more user control and decision making.

This feeling of control connects deeply to the notion of becoming a producer. The unique affordances of digital technologies have helped students more easily become producers rather than only consumers of texts (Alvermann, 2008; Morrell, 2004). Yet, in today's app-saturated market, the simple binary of consumer and producer is quickly disintegrating. Tools for production are easily available, but teacher educators, future teachers, and their future students need to consider carefully

the affordances and limitations of the various tools with which they work. Animoto, while providing easy-to-use production tools, takes a good deal of agency away from the user. And while the pre-fabricated backgrounds and music are convenient, the user should be aware of the drawbacks in losing some of their autonomy and choice in the design of their final composition. We therefore see technology as a complex phenomenon, and technology use situated in broader social movements. Instructionally, it makes good sense to scaffold students' learning by introducing them to possibilities through easy to use tools such as Animoto. However, it is also important to locate gateway technologies and then build students' knowledge, competencies, and potentials through increasingly advanced tools that allow for more user autonomy.

### Developing a Critical Awareness of the Affordances and Limitations of Software

Using new technology for multimodal composing is uncharted territory in schools and teacher education. We do not mean to suggest that multimodal composition practices are going to suddenly change the way that students engage in writing. As new technologies and software programs (such as Animoto) become readily available, we encourage teachers and teacher educators to interrogate the benefits and drawbacks of various programs. Teacher and teacher educators might, for example, discuss their rationale for using specific software and may want to engage their students in the discussion of benefits and drawbacks of different software and applications. Teachers should become not only conversant with various technologies, but also critically aware or skeptical of their various uses and roles. In order to help PTs develop these faculties, theories of multimodality and sociocultural theories of learning will need to be modeled across all teaching methods courses, not just the one media course or writing course that

most teacher programs require. Now, perhaps more than ever, teacher educators need to be equipped with the necessary toolkits to carefully examine their assumptions about multimodal compositions, as well as the assumptions that underlie their own teaching, so that they develop the expertise through which they become more self-reliant in their use of technology in their teaching.

## CONCLUSION

This study illustrates how one student, Mara, was able to create a multimodal composition that had a significant emotional impact on her audience. Understanding the specific ways that modes combine and disrupt expectations and how that patterning can shape interpretation is an important aspect of learning to design multimodal compositions for specific purposes and ends. Developing this kind of metaknowledge of composing practices can potentially provide transformative changes in PTs' constructions of what it means to be a writer in the 21<sup>st</sup> century and provide them with opportunities to reimagine what instruction and learning might look like in their own classrooms.

We anticipate that engaging PTs in the creation of multimodal compositions will help them think about a more broadened notion of what it means to be a writer in the 21<sup>st</sup> century. At the close of 2012, when Mara produced her multimodal composition, this conception does not seem to have taken hold in most schools, and by all accounts the present accountability movement, with its emphasis on test scores, can only discourage it. Taking on this disjuncture of how to incorporate new literacies such as multimodal compositions into schools remains among the greatest challenges in teacher education. Our study of Mara suggests that more fruitful avenues are both available and difficult to institute when the school culture does not support their exploration. We embrace nonetheless Hull and Nelson's (2005) belief that "there is much to be gained from the effort" (p. 253).

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## KEY TERMS AND DEFINITIONS

**Affordance:** What is possible to express and represent easily with a mode. For example, the mode of speech is strongly governed by the logic of time because speech sounds have to be uttered one after the other.

**Multimodal:** Using a variety of modes (written language, images, sound, gestures, and so on) to communicate.

**Multimodality:** Multimodality is used to investigate the relations among modes, such as the interactions between language and image.

**New Literacies:** The study of new literacies refers to looking at new forms of literacy. These new forms can be new in terms of chronology (like digital literacies), or can be new to being recognized as literacies.

**New Literacy Studies:** An approach to literacy learning focused on social practice/. NLS refers to the *social turn* in the study of literacy practices, often using ethnography to aid in understanding of social practices and identities.

**Semiotic Complementarity:** Refers to the way that combining multiple modes can intensify meaning.

**Semiotic Resources:** The different actions and materials one uses to communicate.

**Semiotics:** The study of signs and sign systems.

## APPENDIX

### Mara's "Where I'm From" Poem (Linguistic)

*I Am From...*

*I am from creaking floorboards  
barred windows  
and  
blank white walls.*

\*Mara added another line in multimodal poem

*I'm from snow covered mountains  
and deserts, glaciers and forests,  
Close quarters and open land.  
I'm from Guten Morgan! and Aufwiedersen!  
from mason jars and home made laundry soap  
from maters' and taters and  
southerners and soldiers.*

\*Mara added another stanza in multimodal poem

*I'm from hangers and cockpits,  
barbed wire and flags at half mast  
I'm from hammer and nails  
sweat-glistened soccer fields  
cobblestone streets and  
castles precariously perched.*

\*Mara added another stanza in her multimodal poem

*I'm from fairy-tales and God spoken words*

\*Mara added another stanza in her multimodal poem

*I'm from tail winds and turbulence  
and airport jungle gyms  
where the whole world was only  
a flipswitch and a flight clearance away.*

## **Major Sections Identified in Mara's Poem**

**Section 1:** Description of cramped quarters, and blank white walls

**Section 2:** Describes a variety of geographic areas: mountains, deserts, forests

**Section 3:** Is a summary of what she's just talked about "close quarters/and open land" this theme continues throughout the poem

**Section 4:** Germany (foreign language)

**Section 5:** Back home to the very local (canning/maternal/taters)

**Section 6:** Southerners and soldiers (again this is kind of a summary of the global (military) and local (southerners))

**Section 7:** Juxtaposition of cramped quarters and quiet houses (again)

**Section 8:** Hangars and cockpits

**Section 9:** Hammer and nails/soccer

**Section 10:** Cobblestone streets/castles

**Section 11:** Literacy practices (poetry and novels)

**Section 12:** Fairytales and God

**Section 13:** Notebook

**Section 14:** Boxes/moving

**Section 15:** I am from home is where you lay your head

**Section 16:** Tails and turbulence

**Section 17:** Whole world a flipswitch and flight clearance away