

Writing as Creative Design: Constructing Multimodal Arguments in a Multiliteracies Framework

Emily Howell
Clemson University
esmothe@clemson.edu

David Reinking
Clemson University
reinkin@clemson.edu

Rebecca Kaminski
Clemson University
krebecc@clemson.edu

Abstract

We propose that the perspective of multiliteracies frames writing instruction as the creative construction of meaning across various modalities, and we illustrate how that view might be instantiated instructionally by engaging students in the creative design of multimodal arguments. The background and key elements of the multiliteracies perspective are overviewed, as is relevant research linking it to multimodal writing and creativity. An instructional example of using digital tools to construct multimodal arguments drawn from our work in classrooms is provided. We discuss the challenges writing teachers face in addressing the conventional goals of writing instruction while integrating creatively rich, multimodal digital forms of expression into teaching, and we suggest research that might address those challenges.

Keywords: multiliteracies, creativity, multimodal, composition, argument

For teachers of writing, the contemporary literacy landscape presents challenges, but also inviting opportunities. The goals for helping students develop proficiency in writing conventional texts remain. The implicit rationale for those goals is to insure academic success, future employment, and national competitiveness in a global economy (e.g., National Commission on Writing, 2003, 2004). Although given less emphasis, though presumably still important, is preparing students to engage in democratic citizenship and dialogue, particularly by constructing and presenting cogent and convincing written arguments. For example, in the United States the Common Core State Standards (CCSS) in the area of writing reinforce attention to conventional genres such as developing informational texts and reasoned argument (Council of Chief State School Officers [CCSSO] & the National Governors Association Center [NGAC], 2010).

However, these traditional genres and their attendant goals exist today within an increasingly post-typographic world where digital forms of communication now predominate (Crockett, Jukes, & Churches, 2011; Jenkins, Clinton, Purushotma, Robison, & Weigel, 2006). Writing in a digital world entails unique tools, forms, and genres of writing, suggesting new skills, strategies, and dispositions for reading and writing. That reality cannot be ignored. Yet, addressing it, especially given a continued commitment to conventional writing, is clearly a challenge. Nonetheless, as we argue here, the diverse affordances of digital tools, the multimodal genres they have birthed, and the expansive audiences they have generated offer engaging new avenues for creative expression that might be seamlessly merged with conventional forms of writing.

The revolutionary shift of literacy toward the digital is beginning to appear in curriculum development. The CCSS in the area of language arts again provide an example. One of those standards calls for students to gather information from print and digital sources, and another calls for students to collaborate and publish their writing online (CCSSO & NGAC, 2010). Yet, the gap between the literacy being developed inside of school and practiced outside school remains (e.g., Hutchison & Henry, 2010; Lenhart, Arafeh, Smith, & Macgill, 2008). A majority of adolescents are engaged in and adept at using digital media for writing outside of school, although more for social purposes than for developing the reasoned arguments necessary in academic and work settings and in exercising citizenship (Lenhart et al., 2008). Data suggest that they are less adept at associating digital tools with academic tasks (Purcell, Heaps, Buchanan, & Friedrich, 2013). Data also suggest that, although language arts teachers acknowledge a need to integrate new forms of literacy into their instruction and favor doing so, many of them equate integration with simply using digital technologies, rather than creating new instructional activities and adopting new curricular goals (Hutchison & Reinking, 2011).

How do writing teachers contend with the challenges and exploit the opportunities of teaching writing given the current landscape that continues to value traditional goals of writing, while embracing digital forms of expression? We believe that focusing on creative construction of meaning from the standpoint of what has been termed multiliteracies is a useful way forward. Specifically, digital texts enhance creative construction of meaning by providing a wider range of affordances that are increasingly aligned with the literacy that students engage in outside of school and that are likely to move increasingly into the mainstream of written communication. At the same time, writing digital texts offers students creative opportunities to engage in modes of thinking and constructing meaning that develop and reinforce the conventional goals of

writing instruction, particularly those associated with academic success. In subsequent sections, we elaborate that view, focusing on the creative construction of what we call multimodal arguments. We also share our experiences working with middle-school students engaged in developing multimodal arguments to illustrate how such activities might encourage creative construction of meaning while simultaneously addressing conventional and emerging goals for writing instruction.

Multiliteracies, Multimodal Writing, and Creativity

Viewing all forms of writing as a creative construction of meaning requires a view of literacy that includes, but transcends, the relatively narrow symbol systems and technologies of conventional printed texts. Such a view is well established in the literature about literacy, if not in practice. Most prominently, a group of scholars, referring to themselves as the “New London Group” (NLG) because they met in New London, New Hampshire, outlined a new approach to literacy pedagogy that they called *multiliteracies* (NLG, 1996). Their overarching aim was to broaden existing conceptions of literacy to accommodate increasing social and cultural diversity and to acknowledge a wider range of modes for expressing meaning, focusing particularly on emerging digital technologies. These aims are particularly relevant to conceptualizing writing as the creative construction of meaning and specifically to constructing multimodal arguments. Some of the entailments of the NLG’s multiliteracies perspective, which we discuss in the following sections, are particularly relevant to the perspective we are offering here.

Constructing Meaning is Multimodal

The NLG (1996) proposed that a pedagogy based on multiliteracies must be multimodal including, but going beyond, the linguistic elements of conventional literacy. Thus, reading and writing must also acknowledge the visual, auditory, spatial, and gestural modes. The NLG

(1996) defined modes as a way of discussing meaning in “various realms” (p. 77). Subsequently, other scholars discussing multimodality have described modes as methods for making meaning (Albers, 2006), as genre (Hicks, 2009), and as sets of semiotic resources (Jewitt & Kress, 2010). Modes vary, and meaning is often constructed differently across those modes. Presciently, in light of the then only emerging digital forms, the NLG (1996) argued, “In a profound sense, all meaning making is multimodal. All written text is also visually designed” (p. 81). That view echoed Lanham’s (1993) argument that emerging digital forms inspire a visual, not a philosophical rhetoric, in which readers look *at* not *through* the visual representation of a text. Later Kress (2000, 2003), a member of the NLG, argued that the central role of written language may move to the margins as communication becomes increasingly visual and as mainstream communication moves from a page to a screen.

Learners as Designers in a Digital Context

The multiliteracies perspective sees the construction of meaning as being carried out by designers who employ multimodal tools in creating texts in a sociocultural context. Design is seen as “a sufficiently rich concept upon which to found a language curriculum and pedagogy” (NLG, 1996, p. 73). However, according to Cope and Kalantzis (2000) multimodal design “is . . . much more than the sum of linguistic, visual, spatial, gestural and audio modes of meaning. It also involves processes of integration and moving the emphasis backwards and forwards between the various modes” (p. 211). Put another way, design is an inherently creative act. The NLG (1996) recognized the link between design, creativity, and innovation by introducing the term *hybridity* referring to “multifarious combinations of modes of meaning cutting across boundaries of conventions and creating new conventions” (p. 82).

Digital texts personify the creative act of designing multimodal texts because their inherent affordances entail various linguistic, auditory, and visual media (i.e., they entail multimedia; see Reinking, 2005) that can be blended in infinite ways. However, the design of digital texts today extends beyond what the NLG might have imagined. For example, by 2009 adolescents already engaged with modes of media—music, television, computers, and video games—more than seven hours a day (Rideout, Foehr, & Roberts, 2010). More recent data document that 95% of teenagers are online (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013), and 83% of young adults use online social networking sites (Duggan & Brenner, 2013). Alvermann (2008) argued that these shifts in the use of communication media suggest the need to examine adolescent literacy and how the literacies of students' lives outside of school may not be acknowledged in the world of school, which remains largely print-centric. The theory of multiliteracies directly addresses this disjuncture.

In an increasingly digital world, teaching students to construct meaning using these various media and modes requires helping them understand the purpose of each mode and how to use each one effectively. Hicks (2013) equated teaching students the purpose of modes with creativity: “When we talk and teach thoughtfully about the elements of digital writing—words, images, sounds, videos, links, and other media elements—we are helping them [students] to be purposeful and, in turn, helping them to be creative” (p. 19). It seems clear that inspiring creativity in a literacy landscape saturated with diverse media means embracing multimodal forms of expression for both readers and writers. For example, decisions must be made about digressive or supportive links and options for non-linear pathways that allow readers to participate in constructing textual meaning. Thus, readers are repositioned and must be considered more explicitly in the design of digital texts. A designer must consider what

assistance to provide readers and how much control over the text is allowed a reader under certain circumstances. Digital texts open up creative potential for blurring the boundaries between reader and writer in ways that personify Barthes' (1975) description of the ideal text as 'writerly,' and in which a reader shares in the construction of meaning. Interestingly, too, digital texts can be designed to read readers (see McEneaney, 2006) and thus to adapt in response to individual readers.

Designing digital texts also involves what might be conceptualized as writing in four dimensions. In addition to the two-dimensional positioning of prose and graphical information on a flat screen, digital texts add a third dimension of depth by simulating layers of visual elements. Time is a fourth dimension because the designer of a digital text must make decisions about when and under what conditions symbolic elements and media appear or are available. In fact, to encounter a digital text that does not use such design affordances leaves the intuitive impression of a flat, inert text inattentive to its symbolic and creative potential.

Importance of Argument

The NLG (1996) saw the need to empower students through literacy to acquire agency in effecting constructive social change, again using the metaphor of design: "Students, as meaning-makers, become Designers of social futures" (p. 65). The perspective of multiliteracies was proposed to challenge conventional views of literacy grounded exclusively in linguistic expression as written prose, but it also drew attention to an established socio-cultural milieu that conventional pedagogy had long served, but that had already begun to change. In the view of the NLG, the world has changed politically, culturally, and economically, and so must its views of literacy pedagogy and the ends it aims to serve. Writing conventional arguments, as a positive rhetorical skill, connects directly to the socio-cultural emphasis of multiliteracies. However,

argument is enriched with creative opportunity when conceptualized within the affordances of digital texts. For example, arguments and rhetorical moves in digital texts are likely to use visual and auditory elements, often becoming less abstract and philosophical (Lanham, 1993). Further, the NLG (1996) noted, “The new multimedia and hypermedia channels can and sometimes do provide members of subcultures with the opportunity to find their own voices” (pp. 70-71). Online communication can initiate creative civic engagement where students can “creatively extend and apply it [constructive critique]...within old communities and in new ones” (NLG, 1996, p. 87). Thus, engaging students in constructing meaning as argument, for example on the Internet, may be a useful bridge between the goals of conventional literacy and the aspirations of the multiliteracies perspective.

Relevant Research

In this section we provide examples of research that informs how the multiliteracies perspective and the creative opportunities it provides might be practically integrated into curriculum and instruction. Although the available research relevant to this perspective is of relatively limited scope and breadth, it does provide some guidance and suggests avenues for future research.

Writing as Creative Design

Several studies have addressed how the creative design of multimodal texts differs from traditional writing instruction. In these studies, extending writing into the multimodal domain allowed students to see writing as more relevant to their lives, to give them a creative outlet for becoming more engaged in writing, and to find their voice in classrooms. For example, Vasudevan, Schultz, and Bateman (2010) reported case studies of two students from a larger ethnographic study of a fifth-grade classroom in an urban school. The two students in the case

studies, Michael and Saima, used digital photography and video to write multimodal personal stories in what was called the Buildings Speak project. Michael was described as a student who was typically disengaged in his assignments. However, the project, which allowed Michael to creatively connect his in-school and out-of-school lives, encouraged him to be more engaged in his classwork. Similarly, the project contributed to Saima's movement from a shy girl from Bangladesh, who had only been in the country for a short time, to gain confidence in expressing herself in ways that may not have occurred in conventional writing activities.

Jones (2010) related how technology can be an incentive to writing. She reflected on a college course in which she encouraged students to use podcasts to discuss a topic they planned to write about. Students collaborated in pairs to write a script and then produce a five-minute podcast. She concluded that, "Podcasting differs from written and visual methods of invention...because it requires students to articulate their topic aloud, but more importantly, it is a public performance not solely for the writer and instructor's eyes" (Jones, 2010, p. 79). She noted the performative aspect of the podcast led students to take risks and hone their appeals to audience in ways that surpassed what they might have done on a more traditional, less public, less inherently collaborative, writing task.

In both of these studies, the themes of creativity and risk taking are connected to the multimodal creation of meaning. The multimodal projects allowed the students in the Vasudevan et al. (2010) study to connect their learning to both in- and out-of-school contexts. The creativity these students found in their multimodal projects helped them become more engaged in their learning. In the Jones (2010) study, students were creative in constructing their digital text to be appealing to an audience of their peers. Similarly, students in both studies had to take risks when working with new modes. For example, in the Vasudevan et al. (2010) study,

Michael had to risk connecting his school and home lives. That risk was beneficial as Michael began to move away from his identity as a disengaged student and to develop an identity as a literate, creative designer of meaningful texts. Saima was able to risk baring her personal voice in this multimodal project in ways that she had previously been unable to do. Jones (2010) discussed that the multimodality of podcasting allowed her students to take risks in writing that they had been reluctant to take in more traditional writing assignments. Whether it was digital photography, multimedia projects, or podcasts, the technology of these multimodal compositions allowed students to grow as writers, connecting contexts for their writing and expanding their audience.

Multiple Modes of Meaning

Multimodal writing is based on the idea that multiple modes may be synergistic in the creative construction of meaning (Albers, 2006; Selfe & Selfe, 2008). Teachers need not limit writing to words on a page. Similarly, the point of multimodal writing is not to assign students to work in a particular mode, but to include as Selfe and Selfe (2008) argued, “a *both this and that* [italics in original] culture” (p. 85) of writing. For example, Rowsell and Decoste (2012) conducted a two-year ethnographic study of adopting a design-based approach to creating multimodal texts within an eleventh-grade English class in Toronto. They discussed that students did not initially have the ability to connect multimodal learning with the concept of writing. Thus, they emphasized that literacy instruction needed to include teaching students the potential means of expression that the affordances of multimodal writing allowed. In a multi-case study of high school chemistry students, McDermott and Hand (2013) found that multimodal composition was beneficial to science learning. However, they discussed that constructing meaning with multiple modes of expression is not simply a layering of independent

modes; instead, students need to understand how different modes interact if multimodal texts were to eventually contribute to student learning.

Tools for Implementation

Like any form of writing, multimodal compositions must employ technological tools that enable the construction of meaning. Word processing emerged as the first digital tool that bridged the writing of conventional printed texts and the new affordances of digital expression. Today, many more expansive multimodal tools may be found on the Internet ranging, for example, from video-editing software to multimedia slideshows. However, research suggests that many literacy teachers are not tapping into the creative potential of such tools. Instead, the evidence suggests that digital technologies are viewed in terms of conventional goals of instruction rather than as a stimulus to adopt new curricular goals that might engage students in new ways to creatively construct meaning (Hutchison & Reinking, 2011). Despite the relatively little use of innovative technologies that go beyond word processing in classrooms (Edwards-Groves, 2011), there is research suggesting that using a wider range of technology may encourage creativity. For example, in an advanced placement class, Jocius (2013) conducted a qualitative study of eight multimodal student projects in response to the novel *The Kite Runner* in which students developed “multimodal retellings with literary devices” (p. 313). She found that the choice of a technological tool affected which modes the students used in their projects. For example, students who used PowerPoint for their presentations relied upon text and stationary images. However, those students who used digital video technology, such as iMovie (<https://www.apple.com/mac/imovie>) or Movie Maker (<http://windows.microsoft.com/en-us/windows-live/movie-maker#t1=overview>), refrained from using text and instead used multiple modes, including voiceovers, moving images, and music. Thus, teachers and students

may need to be aware of the affordances and limitations of the technological tools they choose because each tool may shape the creative space for design.

Similarly, Johnson and Smagorinsky (2013), in a case study of Mara, a student in a class of pre-service writing teachers creating multimodal projects, found that the technological tool made available affected the quality of the multimodal composition and the variety of modes used. Specifically, the majority of the teachers in Mara's class used Animoto (<http://animoto.com/>) to create multimodal poems rather than Windows Movie Maker (<http://windows.microsoft.com/en-us/windows-live/movie-maker#t1=overview>). The researchers discussed that those pre-service teachers using Animoto, a video editing tool, had more scripted options for their publication and were limited in their choice. However, using Movie Maker, an alternative tool for video editing, allowed Mara, the subject of the case study, to retain control and freedom in her design of modes for the project. Thus, this study too suggests that the technological tools available may affect the exercise of creativity.

Implementing Multiliteracies with Multimodal Arguments

Drawing on our own work with a teacher in middle-school writing classrooms, we share here a brief example of how the perspective of multiliteracies and the creative construction of meaning might be integrated with the conventional goal of helping students write effective arguments. Specifically, our goal was to engage students in writing arguments as a process of creative design, using multiple modes of expression. In this example, we used an online application called Glogster EDU (edu.glogster.com) that allows students to create a digital poster using music, video, text, and images. In other words, it enables students to engage in construction of an argument as a process of design incorporating digital literacy practices commonly practiced outside of school. Another practical advantage of Glogster EDU is that it

has settings allowing teachers to control with whom students are allowed to share their posters, thus addressing common concerns about public access, although such access can be allowed when warranted. We had eighth-grade students use Glogster EDU during three consecutive days to construct what was effectively a storyboard of the arguments they would use as the basis for a larger project involving the production of a Windows Movie Maker (<http://windows.microsoft.com/en-us/windows-live/movie-maker#t1=overview>) video to convey an argument. However, the Glogster EDU portion of the project might have easily stood alone or have been adapted to fit other pedagogical frames.

On the first day, we reviewed the terms often associated with teaching students how to write good arguments (claims, evidence, and warrants), using Smith, Wilhelm, and Fredricksen's (2012) definitions. We also introduced them to Glogster EDU and its technological features by modeling a poster for the students using and explaining these terms of arguments and providing examples of these terms within an argument. Smith et al. (2012) recommended introducing students to the concept of evidence by using popular advertisements. Incorporating a suggested advertisement from Smith et al. (2012), we used a YouTube video of a commercial in which Derrick Rose, a well-known professional basketball player, endorsed a leading brand of basketball shoes, engaging students in analyzing its content focusing on claims, evidence, and warrants (http://youtu.be/ukW66uXM_8Q).

After a discussion of commercial advertisements as a form of argument, we reviewed and analyzed how the elements of argument were represented in multimodal design, particularly the blending of traditional written texts with the various digital media available in Glogster EDU. We pointed out to students how the conventional elements of argument could be embedded in a multimodal construction that provided a more complex, but creatively rich, set of decisions such

as where to place a claim, what music may set the tone for their argument, and what other visuals might appropriately and effectively reach an intended audience, thus introducing the concept of writing in four dimensions.

When we began this project, students had formed groups and chosen a debatable topic of interest to research. Then the groups chose a position on their topic to argue for their final project, which was a video arguing their position. The Glogster EDU activity helped the students plan these videos by composing images, text, and sounds that would best convey their argument. Just as students typically write an outline to plan a conventional essay, this activity was aimed at helping students think of their argument as a multimodal design process consistent with the multiliteracies framework (NLG, 1996). The Glogster EDU poster helped them to focus on including not just text in their final project, but also images and sounds and to think about how these individual elements could be combined to enhance their argument. A pedagogical limitation of Glogster EDU is that although each student can easily make a poster independently, there is no specific provision for simultaneous collaboration as is possible with other online applications such as Google Documents (<http://www.google.com/docs/about/>). Nonetheless, it is possible to engage students collaboratively, in our case by having students divide their group argument among individual Glogster EDU posters that each represented some portion of the overall content. Some groups divided the parts of the argument among each group member: one member working on the claim while the other members worked on evidence and warrants. Other groups divided the overall argument by scenes that would make up their final project, the video of their argument. Thus, each member was assigned a scene and worked on the claims, evidence, and warrants of that scene. Students collaborated with the other members of their group even as they each worked on individual posters. Group members were encouraged to sit next to one

another to discuss elements of their argument as they worked on their individual posters. Such collaboration in the creative construction of meaning is essential, not only because research has shown that collaborative writing is an effective element of writing instruction (Graham & Perin, 2007a, 2007b), but also because creating meaning from a multiliteracies perspective is inherently social and dependent on the context of its creation: According to the NLG (1996), "...Human knowledge is initially developed not as 'general and abstract,' but as embedded in social, cultural, and material contexts. Further, human knowledge is initially developed as part and parcel of collaborative interactions with others..." (p. 82). Thus, the multiliteracies frame encouraged us to consider how to include collaboration in the creative construction of meaning, even when the technology is not designed for collaborative writing, as was the case with Glogster EDU. Collaboration is likely to stimulate the interactions that help students generate ideas, creativity, and meaning, as we found to be the case, although this assumption, too, would benefit from systematic investigation.

Before students began creating their Glogster EDU posters, we provided a short lesson highlighting some principles that might be used in designing a multimodal argument. For example, we emphasized how posters must convey a claim supported with evidence in their argument, but also how a multimodal argument uses text, images, and audio to express the elements of a valid and convincing argument. The class discussed how these elements worked together, the decisions needed to make these multimodal components flow seamlessly, what an effective final product might look like, and what criteria might be used to evaluate it. We found such discussion to be useful in highlighting the elements of good arguments presented as conventional texts and how multimodal arguments using tools such as Glogster EDU might be used effectively with expanded affordances for creative expression.

We found it helpful to demonstrate to students some of the creative possibilities for designing an online poster that would present a multimodal argument. In that regard, Glogster EDU was useful because it includes many examples of online posters developed by students using this tool. Students can view these examples in a section of the Glogster EDU website called Glogpedia (<http://edu.glogster.com/glogpedia/>). That section offers access to student samples, but it is also searchable by subject area, so students can easily locate examples of multimodal posters in language arts, social studies, science, and other subjects of interest.

The discussion of the Glogster EDU models is an opportune time for students to consider criteria for designing multimodal arguments, comparing them to the development of arguments through more conventional texts, and considering how creativity might be exercised more broadly through multimodal design. To emphasize the differences between conventional and multimodal arguments, we discussed with students a rubric (Hicks, 2009) for evaluating the final version of their Glogster EDU products and how this rubric may differ from those evaluating conventional written arguments. Such specific criteria may help students to be more analytical and reflective in their construction of meaning and offsets a possible tendency to equate creativity with appealing, though superficial, elements in constructing multimodal arguments. Nonetheless, in our experience we tried to balance being too general, thus inviting weak or incomplete arguments, and being too specific with the risk of undermining creativity.

On the final day, the students finished their drafts and provided feedback on each other's arguments. Glogster EDU enables such sharing and also allows a teacher to view students' feedback, although we shared with students that we had this prerogative to review their comments. Although the students had some difficulty sharing their posters due to the limitations of the wireless connection in the computer lab, they were able to send and receive feedback on

each other's writing. That feature instantiates the fundamentally social aspect of the multiliteracies perspective, as explained by the NLG (1996): "A pedagogy of multiliteracies, by contrast, focuses on modes of representation much broader than language alone. These differ according to culture and context, and have specific cognitive, cultural, and social effects" (p. 64). In our experience, Glogster EDU is an application illustrative of how tools for creating multimodal arguments might function in the domain of social media, thus connecting with students' literacy outside of school. In that vein, it facilitated the creative construction of multimodal meaning helping students develop arguments that are social as well as cognitive artifacts. Thus, the social, multimodal dimensions of this tool are not only consistent with a multiliteracies pedagogical framework, but they also address the CCSS requiring that students "use technology, including the Internet, to produce and publish writing and to interact and collaborate with others" (CCSSO & NGAC, 2010, p. 41). Further, this three-lesson activity illustrates how framing writing as creative design accommodates current curricular standards that retain conventional goals such as constructing effective arguments, but that also include goals that acknowledge the spectrum of options for digital communication.

Assessment

It may be intuitively appealing, as well as consistent with increasingly digital forms of literacy, to conceptualize writing as a creative construction of meaning through a process of design. However, such an approach, especially in a political context that demands accountability, suggests the need for valid forms of assessment, ideally that overlap with writing conventional arguments grounded in printed forms. Hicks (2009) addressed that issue, arguing that assessment of digital forms of writing is unlikely to be strictly quantitative and, of necessity, must be somewhat holistic:

What are we assessing, exactly? The number of slides? Fonts? Colors used? Instead, we need to assess the quality of information on those slides as well as the ways in which the entire slide show is designed, thus leading to an overall aesthetic effect. (p. 104)

Whatever the final product designed, the perspective of multiliteracies suggests that it is the overall communicative effect that should be evaluated. However, it also suggests that the process of designing communication, such as creating multimodal arguments, might itself be an object of evaluation, as much as the finished product. Consistent with the multiliteracies perspective, it may be appropriate to consider evaluating both the process and product to include subjective dimensions of creativity. We considered these possibilities in our efforts to integrate assessment into our three-lesson exploration of Glogster EDU as a means to engage students in developing multimodal arguments. Our efforts revealed multiple dimensions of assessment and potential challenges and opportunities for instruction and further research.

To evaluate and understand process, we integrated formative assessment including the students completion of a notecard with a 3-2-1 activity (Wilhelm, Smith, & Fredricksen, 2012), asking each student to generate three words to describe Glogster EDU, two statements describing what they learned from the day, and one question they had regarding the introduction to writing multimodal arguments. The initial feedback suggested that Glogster EDU was interesting and motivating to most students. Of 32 students, 17 used the word *creative*, 13 used the word *fun*, and 10 used the word *interesting*, which is consistent with Jocius' (2013) finding that most students become positively engaged in multimodal composition. However, formative assessment of students revealed that they did not understand how to segment the assignment among the members of their groups and that they were not making the connection between how making storyboards with Glogster EDU would serve their final project. Their questions during the

lessons suggested that they were unclear about how to merge multimodal writing into a more conventional frame for engaging in academic writing.

For example, the students would often ask questions such as, “What does Glogster have to do with our video?” The students did not understand that just as they often write an outline or some form of prewriting before writing a more traditional essay, that their Glogster EDU posters were a means to help them organize not only the text of their arguments, but also the sounds and images they would combine in the design of their final project. Our experience is consistent with Rowsell and Decoste’s (2012) conclusion that it may be necessary to explicitly teach students how digital forms of communication connect to more traditional writing. Further, survey studies suggest an additional challenge. Teachers and students alike do not consider writing in digital genres such as blogging to be on par with more conventional academic genres (Lenhart et al., 2008; Purcell et al., 2013). These perceptions and beliefs are likely to inhibit efforts, not only to integrate digital forms of communication into writing instruction, but also efforts to develop assessments, especially when those assessments entail more subjective, process-oriented approaches.

We believe that such beliefs and perceptions, in which assessment plays a key role, intensifies tensions between teaching conventional writing as an individual technical exercise and teaching writing as a creative, often collaborative, construction of meaning that entails a process of design from a multiliteracies perspective. However, digital tools such as Glogster EDU, which inspire the creative use of multimodal digital constructions, may mitigate those tensions by shifting attention to evaluating the process of writing in a more collaborative domain. Further, we believe research is needed to reveal deep pedagogical understandings about how that alignment might be accomplished in authentic instructional contexts through innovative

interventions and valid, authentic assessments. Methodological approaches such as design-based research and formative experiments (Reinking & Bradley, 2008) are well suited to that task.

The students also provided feedback through what Wilhelm et al. (2012) referred to as composing to transfer, an activity that prompts students to consider how they will use what they have learned and how they will transfer their learning to other areas of their lives and education. For instance, on the final day of this project, we asked students the following question: “What is one thing you learned, and how could you use it in another class?” Students discussed using multiple modes of representation, learning new digital literacy skills, and understanding how to better organize their ideas. Discussing transfer is one way to encourage students to consider how they can use relevant digital skills, aspects of multimodal design, and the skills of making arguments not only in their other subjects, but also in diverse areas of their self-expression, particularly those related to participatory citizenship. Such discussion also connects creatively designing multimodal arguments to the CCSS in the language arts that cross over to history, social studies, science, and technical subjects (CCSSO & NGAC, 2010), thus extending the concept of multiliteracies across disciplines.

To evaluate students’ completed Glogster EDU online poster, we adapted Hicks’ (2009) rubric for multimodal projects, which is based upon a six-traits model of writing (see Northwest Regional Educational Laboratory, 2014), to apply to the genre of argument, the tool of Glogster EDU, and the following five categories: ideas and organization; voice; word choice, sentence fluency, and conventions; collaboration; and publication (see Table 1). In each of these categories, the rubric not only assessed the students’ ability to develop an argument, but also assessed aspects of a multimodal design, including sounds, images, and/or video, to support an established claim. This rubric encapsulates the conventionally valued goal of assessing the

richness of the writing, rather than focusing exclusively on specific conventions. However, it also reflects modifications of conventional forms of assessment to assess multimodal writing. For example, the categories of the rubric connect to the traits of writing (Northwest Regional Educational Laboratory, 2014), which are often used to assess conventional writing. However, within each of these traditional categories, the students are asked to specifically use different modes, including sounds, text, images, and video, to establish each of the traits. In addition, the students are asked to establish a variety in their design that appeals to a viewer rather than a reader, implying this design is meant to be highly visual as well as text based.

Table 1

Rubric for Glogster EDU Poster (Adapted from Hicks, 2009, pp. 115-116)

Grading Criteria	Excellent / 4	Good / 3	Fair / 2	Needs Improvement / 1
Ideas and Organization:	Through sounds, texts, images, and/or video, the storyboard establishes a cohesive, organized argument.	The sounds, texts, images, and/or video establish a claim, but the evidence and/or organization could have been stronger.	The sounds, texts, images, and/or video establish an unclear claim and/or the evidence is not sufficient to support the claim.	The sounds, texts, images, and/or video do not establish or support a claim
Voice:	The sounds, texts, images, and/or video work together to convey the claim in a way that is appropriate and consistent for the audience.	Voice is appropriate for the audience.	Voice is somewhat appropriate for the audience.	Voice shows little attention to the audience.
Word choice, sentence fluency, and conventions:	The sounds, text, images, and/or video combine to form a variety that keeps the viewer engaged.	The sounds, text, images, and/or video are present but may need more variety.	Sounds, text, images, and/or video are lacking and do not show a variety.	There is little to no variety of the sounds, text, images, and/or video.
Collaboration:	Students provide each other with both comments about what works well as well as suggestions for further development.	Feedback is provided, but could have been deeper.	Feedback is provided, but some part is missing.	Feedback is limited or missing.
Publication:	As a whole the Glogster poster uses all of the images, text, sounds, and/or video used to support a consistent,	As a whole the Glogster poster uses all of the images, text, sounds, and/or video to	As a whole the Glogster establishes a claim, but could have used a greater variety of sounds, text, images, and/or	As a whole the Glogster does not develop a claim.

	well-established claim.	establish a claim.	video to support the claim.	
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Students' ideas and organization in this project illustrated innovation and creativity in their final product. Further, the arrangement of the components of argument and the use of multimodal elements in each student's poster varied considerably. For example, as shown in Figure 1, some students started with a claim at the top of the poster and proceeded to use both images and text as evidence in a more traditional, linear progression. Yet, other students, as shown in Figure 2, seemed to organize their poster according to mode, putting the text of their claims first, followed by hyperlinks and pictures that helped justify those claims. Students' voice (i.e., the distinctive individuality of their writing, Spandel, 2005) was also reflected in each poster not only through text, but also through the varying color schemes, frames chosen, placement of images, and so forth.

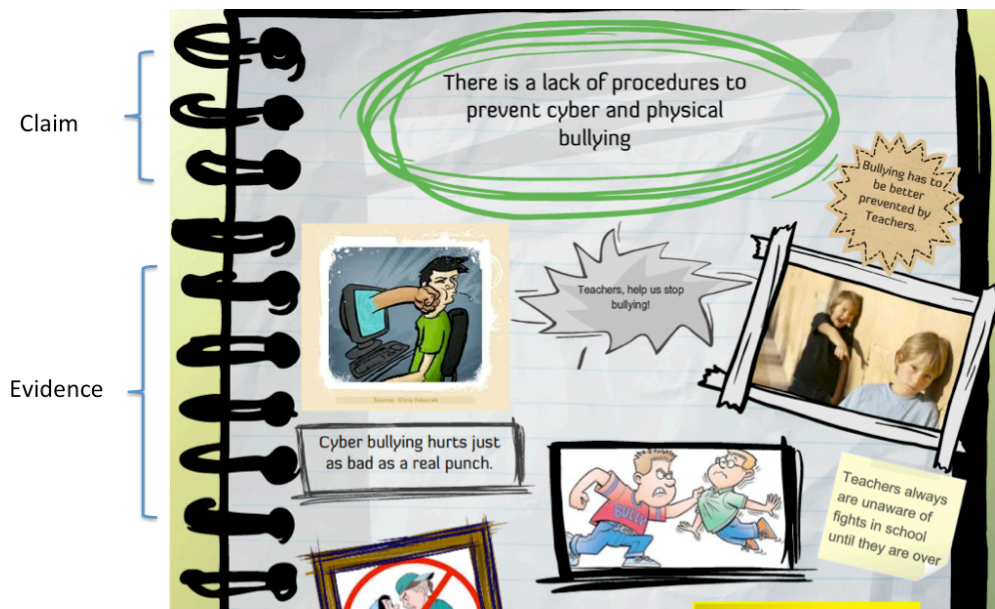


Figure 1. Example of linear progression from claim to evidence.

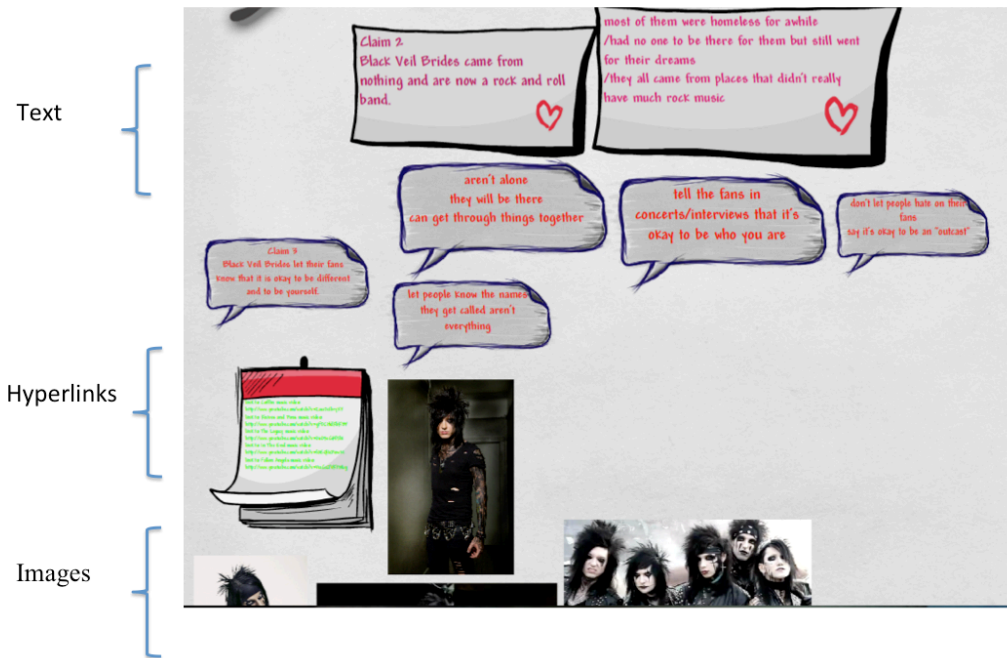


Figure 2. Example of organization by mode from text to hyperlinks to images.

A Final Word

Creating multimodal arguments with Glogster EDU offers an example of how conventional goals of writing instruction can be merged with new goals associated with emerging digital forms of literacy. It also illustrates how the perspective of multiliteracies might guide new approaches to writing instruction that enhance engagement and creativity. However, it also reveals challenges for students and for their teachers. For example, in our experience, although students appeared engaged with Glogster EDU and readily collaborated with their peers, they often had difficulty connecting the broader affordances for digital writing with the traditional writing process, often asking a telling question such as, “What does this have to do

with our argument?” Although students were presumably engaged in digital forms of writing outside of school, they did not readily adapt to using images, music, sounds, and video clips to an academic task such as developing a well-developed argument. Students may need guided practice to link the expanded affordances of digital forms of writing, new opportunities to express creativity, and fundamental standards for effective communication, such as constructing sound arguments.

Exploring how explicit guidance and practice, embedded in specific instructional activities and interventions might bridge old and new forms for writing arguments may be, as we have noted, a fruitful area of research. For example, MacArthur (2006), in his review of the impact of technology upon writing, discussed that composing digitally can be beneficial to students’ thinking: “The case studies and experimental studies together show that composing hypermedia requires high-level cognitive processes and can help to develop those processes” (p. 258). However, he concludes his review by stating that there is limited research on these new forms of writing and that more research on the interventions concerning technology and student writing are needed.

Although multiple studies show that strategy instruction is a critical element of writing instruction and improving students’ writing (Graham, 2006; Graham & Perin, 2007a, 2007b), these studies are largely silent on how such research applies to technology and writing. Graham and Perin (2007b) acknowledged the overall absence of research on technology and writing: “The findings of this meta-analysis do not provide clear direction for the use of technological tools other than word processing...” (p. 26). The authors explained that the reason for this absence was “gaps in the current state of research on writing instruction” (Graham & Perin, 2007b, p. 26). Thus, whereas research exists to support the benefits of strategy instruction for

students' writing (Graham, 2006; Graham & Perin, 2007a, 2007b), questions remain about how these strategies affect digital writing, whether traditional strategy instruction is applicable in a digital domain, and what new strategies may be needed for the writing possible in an age of multimedia. Existing research on this topic focuses upon how technology can support traditional writing (Graham, 2008; Graham & Perin, 2007b) rather than the strategies needed to guide students in creating multimodal compositions. And, we would argue, research that can usefully inform practitioners must reveal how perspectives such as multiliteracies and viewing writing as a creative construction of meaning in digital environments can be practically implemented. Such research would focus on effectiveness in achieving conventional and newer instructional goals along with how they might be integrated and the tensions they may generate. It would focus equally on the appeal and efficiency of instructional activities while acknowledging teachers' and students' beliefs and perceptions.

In our brief exploration of Glogster EDU as a tool for engaging in writing multimodal arguments, students seemed surprised in this classroom application of the multiliteracies framework that digital tools could be applied to conventional academic purposes, such as writing arguments. This disconnect is supported by research suggesting that students do not connect the digital writing they do outside of school with their academic writing (Lenhart et al., 2008; Purcell et al., 2013). It suggests that schools in general and language arts teachers in particular may need to strategically address students' inappropriate perceptions that the literacies they engage in outside of school, which naturally invite creative construction of meaning, have no expression inside of school. Research is needed to address how the literacy practices that engage students outside of school may be affecting the literacy practices of students and, for example, their way of perceiving argument inside of school. However, care may be needed in

appropriating those out-of-school literacies, particularly those involving social media, for use in academic contexts. The need for care in that regard goes beyond the often-cited concerns about students' safety and privacy. Students may see some out-of-school literate practices as an inviolable cultural space for self-expression (e.g., Lewis & Fabos, 2005) and even a way to challenge the dominant culture represented by formal schooling (Guzzetti & Gamboa, 2004).

Despite these caveats, students seem to bring a wealth of creative experience from their immersion in aspects of literacy firmly embedded in digital environments outside of school. They possess a reservoir of technical skills and creative energy from their digital lives that may form a solid foundation for seeking better alignment between conventional writing instruction and broadened perspectives such as multiliteracies. For example, they have considerable technical knowhow and mastery of functions such as uploading and downloading files, cutting and pasting digital graphics, creating and manipulating audio and video clips, and engaging in a wide array of social networking activities. What they do not seem to know is how to channel technical competency and a familiarity with the new cultures of digital communication outside of school into service of academic tasks and the larger goals of thoughtful citizenship. They need to exercise creativity offered by multimodal tools, but tempered, for example, by standards of evidence and a disposition to strategically search for and critically evaluate information in an increasingly diverse and dense landscape of digital information. They need to understand, evaluate, and creatively blend various media into multimodal constructions of meaning, judging the purposes and contents of relevant sources. They need to decide whether information can serve as evidence for their own claims and produce and publish cogent arguments using digital tools. The needed skills, strategies, and dispositions associated with the creative construction of meaning with digital tools come no more naturally, we believe, than they do with the more

narrowly focused and less complex conventional forms of writing. In fact, the multifaceted affordances of digital media suggest that writers today face increasingly complex and subjective decisions freed from well-specified, if not formulaic, approaches. Therein lies the challenge for them and for their teachers, but it is a challenge surrounded by stimulating opportunities for creative expression.

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