

Learning to teach generative meaning-making through multimodal inquiry

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ABSTRACT: This classroom narrative describes the transformation of one beginning English/language arts (ELA) teacher's perspective and practice as the teacher enacted multimodal inquiry activities that were the focus of both traditional and action research projects. Drawing on field notes, transcripts of classroom discourse, and student-produced artefacts, the authors illustrate the ways in which the teacher's practice integrated the language of research with the language of practice in ELA as the teacher sought to incorporate multimodal inquiry activities into his daily curriculum. The process of collaboration that is described in this narrative represents one way in which beginning teachers and teacher educators might overcome what Mary Kennedy (1999) has called the "problem of enactment"—the challenge that many beginning teachers have translating into their own classroom practice pedagogical perspectives encountered in the research highlighted in teacher education programs. The article recounts how one teacher worked through the problem of enactment over two semesters of research and practice as he negotiated theoretical principles and practical dilemmas related to multimodal inquiry during a 12th-grade literature course in the eastern United States. The paper closes with implications for the integration of research and practice in ELA.

KEYWORDS: Collaboration; inquiry; in-service teacher education; multimodality; pre-service teacher education; transmediation.

The first author, Adam, had just returned grades on his students' first collaborative multimodal inquiry projects of the semester. They stole some moments to compare their grades as class ended. One student approached him: "Why did my group get a low grade?" he asked. "Our picture's really good. It's a lot better than that group, and they got a better grade."

Figure 1 represents the painting completed by the student and his group. Figure 2 is the painting the student used as a comparison. His group's "Grendel" is detailed, colourful and clearly a monster. The other group's "Beowulf's Shield" is seemingly simple, contains two broad fields of colour, and the letter "B".

Did Adam make a correct decision in ascribing more value to the shield than the monster? If so, on what basis? Were his students aware of the qualities Adam wanted to see in their products? Finally, did either product really demonstrate student learning and new meaning-making related to the texts on which these multimodal inquiry activities were based?



Figure 1

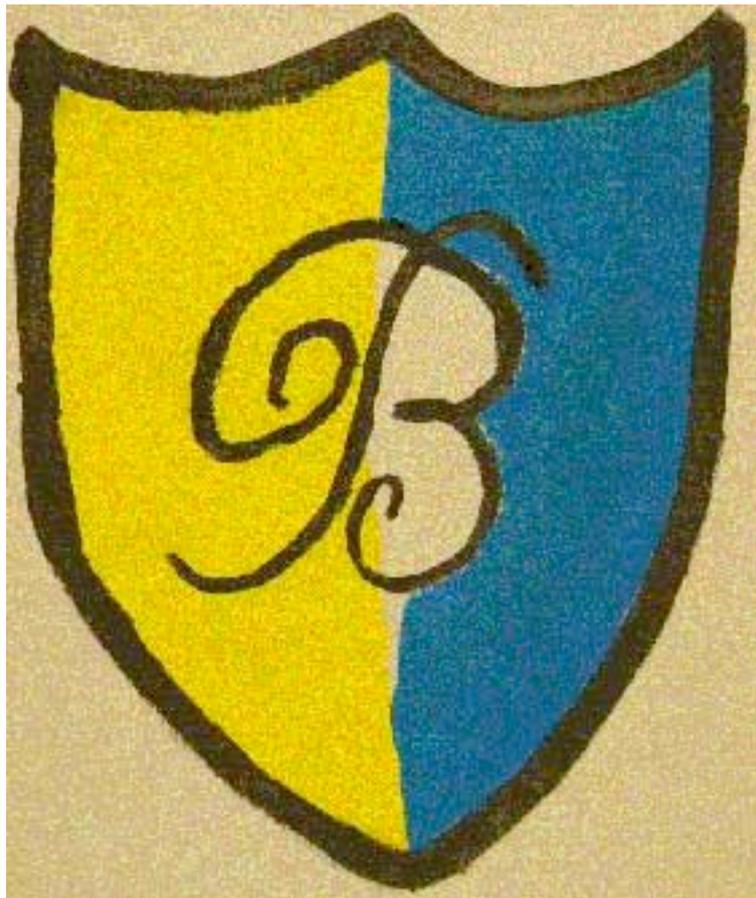


Figure 2

These questions derived from our teaching and research collaboration as we sought to incorporate into Adam's high-school English classroom innovative writing

assignments that facilitated students' interpretive thinking about literature. James had entered Adam's classroom to conduct his dissertation research which examined how multimodal instructional activities informed students' participation during small group and whole-class discussions of literature (Chisholm, 2010, 2011). Previously, James had been an instructor in Adam's teacher education program, which revealed our shared interest in classroom inquiry and multimodality. To address a concern he had about making literary study relevant for all learners, Adam was eager to engage in research that promoted students' generation and ownership of their own ideas. After designing and implementing a series of multimodal inquiry activities, we examined how student talk, multimodal products and the task instructions shaped students' interpretive thinking. Throughout this narrative, we will use the term "multimodal" to refer to artefacts of classroom instruction, the successful completion of which required students to use more than one mode (for example, the visual *and* the linguistic mode) in order to produce.

Our year-long collaboration led to opportunities for us to dialogue and troubleshoot issues that came up throughout the first semester-long research project, before Adam conducted a second-semester action research project based on the understandings that both of us developed over the course of the first semester. Additionally, the curriculum in which Adam worked required a multimodal project as the culminating assignment for one of the course's units. Adam's students, therefore, would be afforded multiple opportunities to engage in the critical and creative thinking that multimodal inquiry activities can foster (Smagorinsky & O'Donnell-Allen, 1998).

INTEGRATING A LANGUAGE OF RESEARCH WITH A LANGUAGE OF PRACTICE

We couch Adam's use of multimodal inquiry activities in the literature on the research-practice divide that has long been a concern of stakeholders in English education and instructional settings in general. How can teachers take what they learn in their university coursework and apply that theory-based knowledge in their own classrooms? Our conversations about two research projects – one traditional research project and one action research project – conducted in Adam's classroom provided the dialogic space for the authors to overcome what Mary Kennedy (1999) has called the "problem of enactment" (p. 70). According to Kennedy, novice teachers must learn to translate ideas, a language of *theory*, into the "behavioral enactments" (p. 71) they want to see within the classroom. Beginning teachers frequently make pedagogical choices based on theories they have learned in university classrooms, but, too often, they may struggle to anticipate the concrete student behaviours they expect as a result of those choices.

William James noted in the late Nineteenth Century that the application of psychological principles in actual classrooms would require an "intermediary inventive mind" (quoted in Berliner, 1988, p. 4) to "bridge the divide" between research and practice. More recently, scholars have argued that the research-practice disconnection is itself a false dichotomy (Sperling & DiPardo, 2008), and have pointed toward exemplars of studies in which research and teaching have been integrated through collaborative relationships between researchers and teachers. A recent volume edited by Albers and Sanders (2010) provides a compelling review of

research studies that illustrate both the rewards and challenges associated with the incorporation of multimodality into the 21st century ELA curriculum. Costello's (2010) chapter in this volume highlights in particularly profound ways the complexities involved in negotiating progressive beliefs about literacy teaching and learning with real students in actual classrooms. In the end, the teacher in Costello's (2010) study, whose pedagogical philosophy aligned well with multimodal and sociocultural theories of learning, prevented some of his students from participating in a digital literacy project as a form of punishment for misbehaviour. Despite the "problems of enactment" (Kennedy, 1999) that beginning teachers may face, we side with Albers and Sanders (2010), who "[hold] that children (and adults) learn best when *engaged* in complex, socially constructed, personally relevant, creative composition and interpretation of texts that incorporate a variety of meaningful communicative modes or symbol systems" (p. 4).

In this article, we add to Albers and Sanders' (2010) and Sperling and DiPardo's (2008) emerging narrative of research-practice integration by describing a year-long collaboration that illustrates the ways in which Adam developed a language of research *and* practice in ELA as he sought to incorporate multimodal inquiry activities into his daily curriculum – a topic about which a growing body of research has been devoted in ELA and incorporated into English teacher education programs, including Adam's teacher education program. As noted, we use multimodality to refer to students' uses of more than one semiotic system to represent their interpretations of literary texts, and draw on an equally robust concept, transmediation, to refer to the recasting of meaning across semiotic systems (Berghoff, Egawa, Harste & Hoonan, 2000). It is our goal in this narrative to illustrate the ways in which Adam encountered, internalised, and applied the language of research and practice to enhance his students' generative meaning-making in his high-school English classroom.

THE PROBLEM OF ENACTING MULTIMODAL INQUIRY PRACTICES

Theoretical foundations and research base

Although scholars have argued that adolescent literacy is increasingly *°ed* by multimodality in the form of students' digital, out-of-school, and multi-literacies (Alvermann & McLean, 2007; Gee, 2007), additional research is necessary to understand how these literacies may inform academic literacy practices (Jewitt, 2008). We believe that the instructional use of multimodality can leverage students' learning most robustly when guided by a teacher-facilitator who understands the value of multimodality from both a research and practice perspective. To that end, we will reflect on the ways that Adam's understanding of the semiotic concept of transmediation – the recasting of meaning across sign systems (Berghoff et al., 2000) – informed his classroom practice in ways that encouraged his students to think both critically and creatively about the multimodal products they constructed.

Compelling research on transmediation (Berghoff et al., 2000; Semali, 2002; Siegel, 1995; Suhor, 1984; Whitin, 2005) has demonstrated how students who recast meanings from one mode or sign system (for example, the linguistic sign system that characterises most literary texts in secondary school) into another sign system (for

example, the visual sign system of a painting) expand the interpretive potential of the text under examination. The power of transmediation to result in students' making new meaning in an alternate sign system is what scholars have referred to as the non-redundant potential of transmediation (Short & Kaufman, 2000; Zoss, 2009). Thus, transmediation promotes the generation of new ideas potentially unavailable in other semiotic systems. Berghoff et al. (2000) have suggested that activities that compel students to recast meanings across sign systems "create tension, offer new perspectives, and set in motion the twin processes of reflection and reflexivity" (p. 3). This orientation toward transmediation results in a generative approach to literacy in which students use sign systems to engage in multiple ways of knowing (Albers, 2006, 2007; Berghoff et al., 2000; Burroughs & Smagorinsky, 2009).

By increasing the number of sign systems to which students have meaning-making access, transmediation leads to the development of new interpretations, and thus, multiple and alternative perspectives of texts (Suhor, 1984; Youngquist & Pataray-Ching, 2004). Students who transmediate new understandings of literary texts take ownership over their own learning by using internalised concepts to articulate and semiotically mediate their understandings of texts, interpreting difficult texts using contemporary stances toward literature, and connecting their own lives to the contexts of the characters represented in literary texts (Smagorinsky & O'Donnell-Allen, 1998). Finally, transmediation deepens students' understanding by encouraging students to use texts as "thinking devices" (Lotman, 1988, p. 36) that can be analysed and interpreted by drawing on multiple literacy practices that originate in both school and out-of-school settings.

Practical distinctions: Literal versus generative transmediation

Suhor (1984) warned that, like any pedagogical process, transmediation could be leveraged superficially. He distinguished between "literal" and "imaginative" forms of transmediation, the latter of which results in generative meaning-making. Literal forms of transmediation, on the other hand, do not engage students in the dialectic process, nor are texts used as "thinking devices" (Lotman, 1988, p. 36) when concepts are merely reproduced rather than transformed in another sign system (Berghoff et al., 2000).

During the first semester, the authors met to discuss the literal and generative forms of transmediation that were evidenced in the multimodal inquiry products that students in Adam's class constructed as part of James' dissertation research. *The Natural* (Malamud, 1952), a novel about the rise and fall of an unlikely rookie baseball player, served as the third unit in Adam's curriculum and was the second iteration of a jointly designed multimodal activity. One group of Adam's students produced a clay sculpture of Roy Hobbs' bat, which the protagonist named "Wonderboy", while another group sculpted a baseball whose cover seemed to unravel (see Figure 3). Although such sculptures were aesthetically pleasing and represented important objects that were central to the novel, they illustrated or decorated the text rather than extended the potential meaning of *The Natural*.

As a point of comparison, another group in Adam's class created a painting that transformed and added meaning to a critical scene in the same text (see Figure 4). Ultimately, the group's painting represented the major elements of the plot of the

novel as well as the group's approach to the novel's interpretation. Arguably the most memorable moment in Malamud's (1952) novel, *Roy Hobbs*, the oldest rookie in the game of baseball, hits a pitch so hard that it knocks the cover off of the ball. The students who created the painting in Figure 4 played with this scene by depicting an unravelling ball, which revealed a chronological sequence of symbols of misfortune throughout the novel. One way to interpret this image, then, is to read the painting – a representation of the theme “character tested by misfortune” – in two frames, as suggested by the group members during their discussion as they composed this image. In the first frame, Roy is depicted as “the best there ever was”, hitting a baseball with such force that the cover comes undone. Frame 2 illustrates how no matter how great Roy becomes, he cannot escape his past, including the character, Harriet Bird, and the misfortune that befalls him after a series of poor choices. These choices led ultimately to Roy's character test, symbolised by the antagonist Memo, who connected Roy to his worst choice and ultimate instance of misfortune: Roy takes a bribe and agrees to “throw” or purposefully lose a game in which he was playing.



Figure 3

RECOUNTING PRACTICE

Throughout our year-long collaboration, we discussed the kinds of meaning-making we hoped to see the students produce. During these conversations, Adam would discuss how he integrated multimodal inquiry activities into his instruction. For example, in planning innovative inquiry activities for students, Adam reflected on his use of a project known as a “body biography” (Smagorinsky, 2001) during his student teaching:



Figure 4

- James: How did it go?
- Adam: It was actually, it was kind of nice. I liked it. It was for a world mythology class and some students were doing actual gods and goddesses and these huge epic figures and turning them into biographies. I liked it.
- James: And they were using symbols to represent personality traits?
- Adam: Exactly, they...the way the assignment is crafted is to ask for specific parts of the body to represent different things. I think they were doing the Bhagavad Gita...I think the “evil guy” had a sword in his spine or they made his heart black. Sita had flowers.
- James: That’s transmediation.
- Adam: Yeah? Okay.
- James: And then have [the students], like we’ve been doing all along, provide a description.

Adam, who had already incorporated this particular inquiry activity – the body biography – in his student teaching, could describe what students were able to produce within its structure. He saw the potential for its symbolic nature to parallel criteria for transmediation, as literature on the subject would define it (for example, recasting meaning across semiotic systems). James could make the connection between symbolic representations of personality traits and transmediation that informed Adam’s evaluation of the work such projects asked of students.

In the above discussion, our focus was still very much on what we felt students could *do* in order to approach multimodal projects in interesting ways. In our next planning meeting to discuss *The Natural* (Malamud, 1952), we first broached the topic of how multimodal inquiry activities could take on different qualities:

- Adam: One of the motifs is birds, so what do you do, just build a bird out of clay?
James: See, that would be what they call a literal transmediation, instead of a generative transmediation. So, if you use paint to depict the setting of the play, that's not transmediating, that's describing, which is fine, I mean it does different things. It's using multimodal materials to describe, not to mediate a different type of thinking. That's where the question becomes key. So, you could avoid that pitfall by crafting the question in a certain way so that students can't just make the bird.

James articulates a key theme from many of our discussions: we wanted students to use multimodal materials to inquire into the text. Adam's authentic question was one he envisioned his students asking. The question prompted us to consider how composition functioned as inquiry as we applied the meanings of the labels "literal" and "generative" to Adam's instruction and evaluation.

As evidenced by Figures 1 and 2 referenced in the introduction, students engaged with processes of transmediation to varying degrees of success as Adam continued to enact multimodal inquiry activities during the next semester with new students. In the next two sections, we analyse the case of the "Grendel" and "Beowulf's Shield" paintings in an attempt to understand how the students came to produce examples of literal and generative transmediation. We will also show how Adam interpreted the differences in the paintings before describing one method we agreed Adam should employ to present his goals for multimodal projects to his students.

The multimodal inquiry assignment

Looking back at the assignment, Adam noted several factors in the prompt sheet (see Figure 5) that could have led students to infer that a literal transmediation could meet the requirements of the exercise. The project's prompts, while open-ended, do not all explicitly demand new meaning-making. Prompts 1-4, for example, could potentially ask students to re-hash earlier discussion about the text using previously identified symbols or plot events. The language of "symbols and actions" was used in those prompts as a reference to the focus Adam adopted for reading *Beowulf* and *Grendel* (Gardner, 1971/1989) as inquiry into social worlds (Beach & Myers, 2001) and multiple perspectives. The students would have had opportunities to identify for themselves some symbols and actions that seem to have had special cultural relevance in the account of the epic or in Gardner's (1971/1989) re-telling of it. In the case of the group that painted a shield for Beowulf, the prompts also seem to allow space for students to create new symbols that represent key qualities of a character, as we will discuss below in the section on captions, which functioned as group project justifications.

Perhaps Prompts 1-4 would have more clearly asked for new meaning if they were combined, that is: How are the symbols and actions that define Beowulf's character in the original epic adopted or changed in the modern story? We had initially written them as separate prompts in anticipation of groups who had answered parallel questions with their projects discussing the validity of each other's interpretations from the perspectives of each account of the story. Combining some of the first four prompts would bring them more in line with the language of Prompts 5 and 6, which do not suggest immediate literal representations as valid responses:

- *You will need blank paper, a pen or pencil, and a set of project materials described on the attached sheet.
- *As a group, brainstorm possible responses to each of the following questions.
- *Choose one question from the list and plan a fully developed response, including **individual responsibilities** for completing the response.
- *Synthesise each group member's contribution into a final product.
- *The response is to be finished before you leave class today—you all have plenty to do, so I don't want to add to your homework load.
- *Your group will probably not immediately know how you want to respond to a prompt. That is fine. Communicate respectfully together to work through how best to create a response. Please ask questions, but be sure that you have tried to answer them for yourself first.
- *Include a short written statement explaining your project, similar to a placard posted next to an exhibit or piece of art in a museum or a summary statement about a program as found in a T.V. Guide or on IMDB.com

Prompts:

Brainstorm for all; then choose one or more.

1. What symbols and actions define Beowulf's character in the original epic?
2. What symbols and actions define Beowulf's character in the modern re-telling of the story?
3. What symbols and actions define Grendel's character in the original epic?
4. What symbols and actions define Grendel's character in the modern re-telling of the story?
5. What does the anonymous author mean to say about good vs. evil or the importance of the hero in the original epic?
6. What does the author mean to say about good vs. evil or the importance of the hero in the modern re-telling of the story?

Figure 5

What does the anonymous author mean to say about good vs. evil or the importance of the hero in the original epic?

What does the author mean to say about good vs. evil or the importance of the hero in the modern re-telling of the story?

Prompts 5 and 6 ask students to infer meaning regarding abstract concepts (for example, the role of good and evil or the importance of the hero) and represent the relationship between the concept and the text. The prompts do not refer to specific characters or events, which would seem to have discouraged an illustrative response. We believe that inquiry-based prompt design is an integral component in promoting students' generative multimodal constructions, perhaps even more so than clays, paints, cameras and computers. We recognise, that is, that not all open-ended questions provide the same potential for critical engagement with a text.

The multimodal inquiry captions

Frequently, literature on creative or multimodal classroom projects calls for formalised linguistic-mode explanations of the projects, perhaps as a nod to justifying the "rigour" of such activities (Zoss, Smagorinsky, & O'Donnell-Allen, 2007) that result in "cute" characterisations of such tasks, a sentiment that Berghoff et al. (2000) implore educators to move beyond (p. 3). In Adam's classroom, we attempted to integrate such linguistic explanations as another opportunity to transmediate meanings

across sign systems. Using real-world genres like museum placards or media-guide summaries, we asked students to recast the meaning they had generated in their multimodal inquiry projects into the linguistic mode again. In the language prompting the caption writing, two words mark two different orientations toward meaning-making: “explain” and “summary” (see Figure 5). “Explain” offers students the opportunity to generate a new meaning in the linguistic mode based on the meaning conveyed in another mode, typically the visual mode. “Summary” could have promoted a literal transmediation into the linguistic mode as a description of the students’ projects. We acknowledge that the language of the task might have influenced the students’ participation in the task, and the unclear expectations could have caused Adam to misread prompt-appropriate captions. Even though students could have used the captions to make new meanings about the text or to merely summarize in another mode what they had already accomplished interpretively, the captions did provide us with another perspective on students’ thinking through their projects.

For Adam, the captions were integral in assessing the different kinds of thinking that had produced the “Grendel” painting and the “Beowulf’s Shield” painting described above.

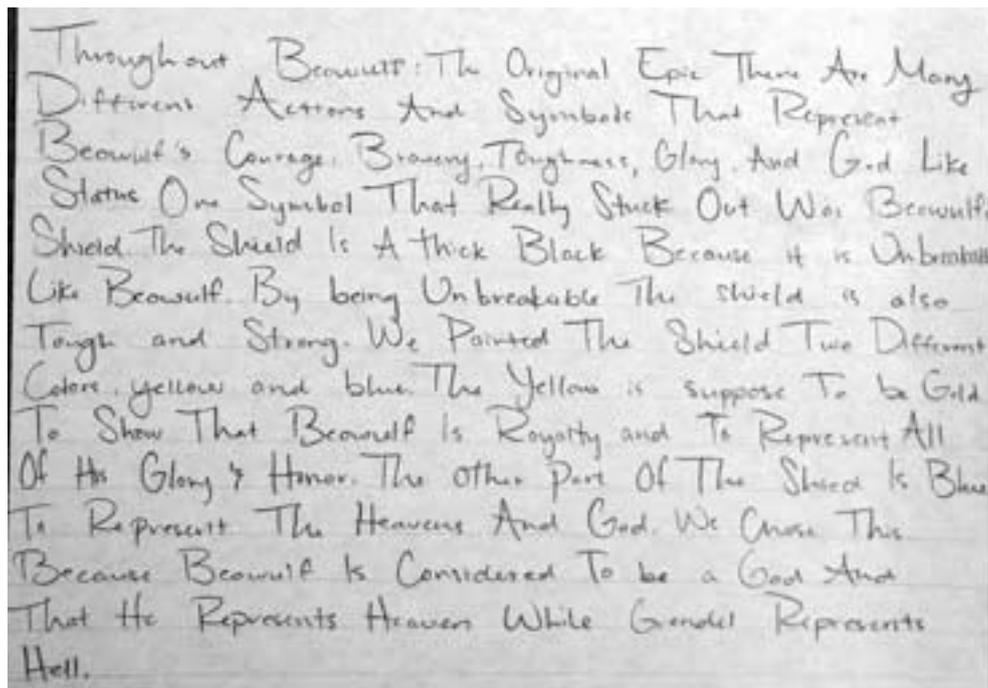


Figure 6

While not perfect in its execution, Adam saw the shield painting as a representation of students’ interpretations of abstract concepts in visual form. The “Beowulf’s Shield” caption (see Figure 6) expresses the means by which the students accomplished the recasting of meaning across sign systems (Berghoff et al. 2000). The “Grendel” caption (see Figure 7) is a description of literal facts about the monster, despite the group’s extra-textual additions (that is, a purple, venomous tongue). Again, the prompts themselves could have suggested room for this kind of response. Recognising

that the Grendel painting and the description did not match what he had envisioned for these projects, Adam asked the group, “So what about him, his character, suggested that kind of look?” after they had presented their painting. One student responded, “We just thought, like...we said he was evil, and he was spawned of the devil, and Cain, and I mean that just looks evil, so, you know.” The student demonstrated that her group had picked up details from the text (for example, “he was spawned of the devil, and Cain”), but she and they had not had their thinking pushed from what Grendel seemed to factually *be* to what he represented for the cultures who tell his story – possibly, for example, the collapse of society when the king can no longer protect his people.

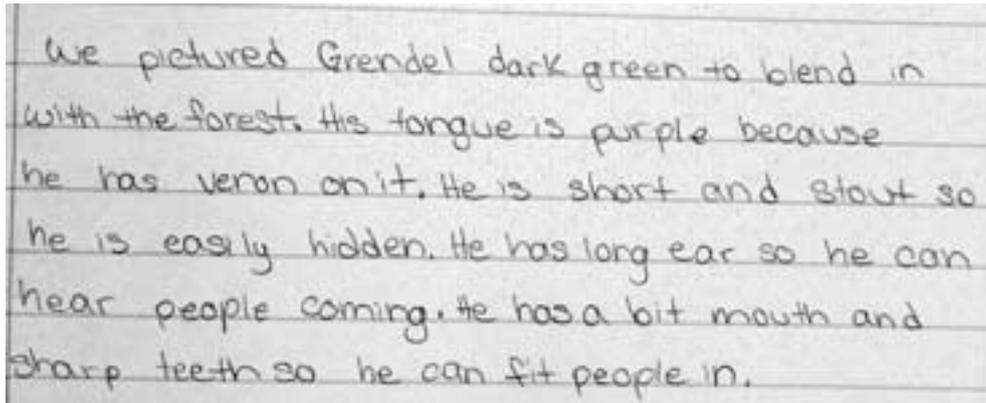


Figure 7

An additional opportunity to push students’ thinking beyond the surface of a text was -ed in the caption writing activity. As students wrote these captions, they engaged yet again in the process of transmediation. On this occasion, however, students moved from the visual mode of the painting to the linguistic mode of the caption. We believe that this frequent movement back and forth between sign systems can promote generative types of meaning making. The generation of these new ideas is further enhanced when teachers can construct tasks in such ways that promote students’ interpretive thinking about the text. We found that studying the thinking displayed in the captions revealed an additional avenue for making sense of students’ interpretations involved in the creation of the multimodal inquiry projects.

Using metacognitive prompting for multimodal inquiry projects

A strategy Adam employed to promote interpretive thinking was that of metacognitive prompting. For a multimodal inquiry task that was the culminating project for a unit on *The Natural* (Malamud, 1952), he provided students with explicit language regarding how he wanted students to adopt a generative orientation toward the task:

Illustration is copying meaning that is already present, i.e. drawing a picture of Wonderboy and explaining how Roy uses Wonderboy. Generation is creating new meaning from the raw materials of the text that explains something important about the text; i.e. exploring the connections between Excalibur and Wonderboy through charting quotes from King Arthur and *The Natural*, re-writing a King Arthur legend to be about Wonderboy, or visually demonstrating how Roy relies on Wonderboy as Arthur relies on Excalibur.

As was the case with the language of task prompts, providing students with a definition of generative meaning-making and examples of potentially generative projects were means by which Adam guided students' thinking about the task while also respecting the space necessary for student creativity.

IMPLICATIONS

Adam's teacher education program promoted teachers to become and be "reflective practitioners". Throughout his education, Adam was introduced to research and theory in language, literacy and culture that exposed, among other concepts, the value of multimodal inquiry and transmediation. In the actual classroom, however, multimodal inquiry projects presented an instructional challenge, as some of Adam's students' projects decorated texts, while others exploited the multimodal nature of the inquiry activities in order to transform interpretations and generate new meanings about the texts – the orientation toward learning that we share with Albers and Sanders (2010). While Adam had studied multimodality in his teacher-education program and had already taught the multiple intelligences assignment contained in his school's curriculum, he was not recognising that students had been applying very different cognitive skills in products that looked similar. Through our own reflective dialogue, we came to see, not only the practical results of the theoretical distinctions between literal and generative transmediation, but also ways to structure multimodal inquiry tasks, incorporate opportunities for students' frequent interpretive movement across sign systems, and include metacognitive prompts to promote the potential for generative meaning-making.

By the end of our year-long collaboration, we had learned to anticipate, reflect on and respond to the unique complexities involved in the enactment of multimodal inquiry activities in ways that enhanced student learning. Our planning and debriefing conversations, teaching observations, and data analysis throughout the year provided the opportunities for us to integrate our language of practice with our language of research, so that we could facilitate the deeper interpretive thinking of Adam's students. We believe that such collaboration and dialogue were essential to overcoming the "problem of enactment" when it came to incorporating multimodal inquiry activities into Adam's high school classroom. Furthermore, we see how our process of collaboration could address lingering notions of a research/practice gulf in ELA.

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