

**LEVERAGING ADOLESCENTS' MULTIMODAL LITERACIES TO PROMOTE
DIALOGIC DISCUSSIONS OF LITERATURE IN ONE SECONDARY ENGLISH
CLASSROOM**

by

James S. Chisholm

B.A., University of Notre Dame, 2001

M.A., University of Chicago, 2002

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This dissertation was presented

by

James S. Chisholm

It was defended on

April 13, 2010

and approved by

Dr. Amanda Godley, Associate Professor, Department of Instruction and Learning

Dr. Richard Donato, Associate Professor, Department of Instruction and Learning

Dr. Scott Kiesling, Associate Professor, Department of Linguistics

Dissertation Advisor: Dr. Amanda Thein, Assistant Professor, Department of Instruction and

Learning

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Although researchers have identified the positive relationship between students' academic literacy learning and dialogic discussion—talk about texts in which students build on and transform each other's ideas—this pattern of discourse occurs rarely in most secondary English classrooms. Promising research on the varied multimodal literacies in which adolescents are engaged in their out-of-school lives suggests that these literacies may inform academic literacy practices such as dialogic discussions of literature, but little is known about *how* such literacies might be leveraged to make academic literacy instruction more effective. This dissertation study identified ways in which students' out-of-school and multimodal literacies could be leveraged to shape their participation in dialogic discussions of literature in one secondary English classroom. To that end, this study comprised an empirical investigation of students' participation in dialogic discussion after completing either collaborative multimodal or collaborative unimodal projects, and traced focal students' participation across small group and whole class discourse contexts to investigate whether and how student learning was facilitated through multimodality. Drawing on classroom discourse analysis and ethnographic data collection techniques, this comparative study of two sections of one 12th-grade English course explored the centrality of semiotic mediation and transmediation as these processes supported students' participation in dialogic discussions. Findings support the use of collaborative multimodal instructional activities to facilitate students'

internalization of dialogic discourse norms and scaffold students' participation in discussions across discourse contexts.

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1.0 CHAPTER I: INTRODUCTION

Classroom discussions can provide important learning opportunities for students in many disciplines. When well planned and implemented, discussions can lead students to (a) participate in discipline-specific ways of thinking and doing (Applebee, 1996; Burroughs & Smagorinsky, 2009; O'Connor & Michaels, 1996), (b) craft their own ideas and consider others' ideas (Applebee, Langer, Nystrand, & Gamoran, 2003; Forman, McCormick, & Donato, 1998), and (c) take ownership over and author their own ideas (Engle & Conant, 2002; Beck, McKeown, Sandora, Kucan, & Worthy, 1996). Through discussion, students learn both the “how” and the “what” of learning in various disciplines.

Discussions of literature in English language arts (ELA) classrooms represent especially powerful literacy learning opportunities for students. Since the content of instruction (literary texts of various sorts) often defies “right” or “wrong” answers, students' abilities to construct textual interpretations become critical in terms of learning content knowledge successfully—indeed, it may be said that students' abilities to interpret and discuss their interpretations with others comprise productive disciplinary engagement (Engle & Conant, 2002) in ELA.

Effective interpretive discussions often resemble naturally occurring conversation or dialogue between teacher and students, what Nystrand and Gamoran (1991), drawing on Soviet literary theorist Mikhail Bakhtin (1981), referred to as “dialogic discussion.” Generally, such dialogic discussions of literature position students as active meaning-making participants in their

own learning while literary texts are positioned as open for multiple interpretations. As natural as such a discussion might seem, this pattern of interaction is atypical in secondary ELA settings (Nystrand, 1997; Nystrand, Wu, Gamoran, Zeiser, & Long, 2003). As a result, dialogic discussions in which teachers pose open-ended questions without pre-specified answers, students ask questions as a primary means of learning content, and participants in the discussion take up others' responses while teachers "incorporate, probe, and honor students' multiple voices in the classroom" (Juzwik, Nystrand, Kelly, & Sherry, 2008, p. 1116) occur infrequently.

The use of dialogic discussion as an instructional tool presupposes a broader conception of literacy than that which is realized in many secondary English classrooms; that is, the ability to read and write print texts (Street, 1995). Although dialogic discussions have been shown to increase student performance on measures of reading comprehension (Nystrand, 2006), among other "neutral" academic skills, dialogic discussions are fundamentally ideological (Street, 1995). In other words, dialogic discussions of literature in English classrooms are imbued with the social, cultural, political, linguistic, and historical contexts that compose the school environment.

Using a more encompassing conception of literacy, this study builds on the theoretical and empirical work done on multiliteracies (Coiro, Knobel, Lankshear, & Leu, 2008; Cope & Kalantzis, 2000; New London Group, 1996), and multimodal literacies (Jewitt, 2008; Kress & van Leeuwen, 2001) to define literacy as "what people do with texts broadly defined" (Larson & Marsh, 2005, p. 21). As Larson and Marsh (2005) noted:

Literacy is intimately tied to contexts of use or what people do with literacy in formal and informal settings both inside and outside school. Literacy is not just reading and writing

English text (in English dominant settings), but is a multimodal social practice with specific affordances in different contexts. (pp. 20-21)

Using this definition of literacy allows me to situate dialogic discussion as a literacy practice as well as a text in its own right. This definition also highlights the important role played by students' out-of-school, social, and multimodal practices. In this study, I employed discourse analytic research methods to examine how students' out-of-school, social, and multimodal practices could be leveraged in order to promote students' dialogic discussion of three literary texts. Additionally, this study drew on data collected from observations, classroom artifacts, field notes, and interviews to examine the particular nature of students' literacy learning and the teacher's role in that learning as students engaged in activities that were designed to facilitate their participation in dialogic discussions of literature.

1.1 SOCIOCULTURAL AND HISTORICAL CONTEXT

Since the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983), researchers across academic disciplines have pointed to the implications of the “problem” of adolescent literacy for future educational, economic, and social opportunities. In response to these reports, some researchers have called for remediation of the sort that would prepare adolescents to become critical thinkers and logical writers to meet the educational and workplace demands of the 21st century (Beaufort, 2009; Partnership for 21st Century Skills, 2008), while other researchers have drawn attention to the critical thinking and logical composing abilities that adolescents already possess (Alvermann, 2009; Hull, 1993), but which are not recognized

within an autonomous model of literacy (Street, 1984) that perpetuates a monolithic definition of literacy as strictly the ability to read and write.

By understanding literacy as an ideological practice (Street, 1984)—situated historically, socially, and culturally in multiple contexts both in school and outside of school, and realized through the local language and meaning-making practices that occur in these contexts—it is possible to imagine addressing the “problem” of adolescent literacy, not from a deficit perspective that presumes adolescents to lack the literacy skills of “competent” adults, but rather to consider the new and multiple literacies that adolescents already practice. These multiple literacies, or multiliteracies might be leveraged to support both new as well as traditional academic literacy practices that are needed to participate fully in today’s global world.

In a recent report funded by the U.S. Department of Education’s Institute of Education Sciences, Kamil et al. (2008) made five recommendations to improve adolescent literacy. Among the recommendations that pertained particularly to this project were the following: (a) “provide opportunities for extended discussion of text meaning and interpretation,” and (b) “increase student motivation and engagement in literacy learning” (p. 7). Indeed, an extensive body of research has identified both how and to what extent discussion-based instruction improves adolescents’ literacy learning, including how such discussions inform students’ learning of the disciplinary practices of English (Applebee, 1996), promote students’ performance on literacy tasks (Applebee et al., 2003), and improve reading comprehension (Nystrand, 2006).

This research literature has also linked students’ motivation in literacy learning with their substantive engagement in dialogic discussions (Nystrand & Gamoran, 1991). Nystrand and Gamoran (1991) defined substantive engagement as “sustained commitment to and engagement

in the content of schooling, i.e., the problems and issues of academic study” (p. 262). Problematically, however, dialogic discussions of literature occur as infrequently as 15 seconds per class period in 9th-grade English classrooms (Nystrand, 1997). Consequently, researchers are challenged to identify the classroom practices and conditions that foster teachers’ and students’ effective participation in dialogic discussions. This dissertation project takes up that challenge.

1.2 THEORETICAL FRAMEWORK

In this theoretical frame I outline sociocultural and multimodal social semiotic perspectives on learning, ultimately linking these theories to argue that students’ talk and academic work originate in social practices and that these practices exist within a dialectical relationship with each other; students’ talk informs their academic work and students’ academic work informs their talk. I extend these central tenets in both sociocultural and multimodal social semiotic learning theories to hypothesize that dialogic discussion, as a particular way of talking in the classroom, and multimodality, as a particular way of working in the classroom, also relate to each other dialectically.

Sociocultural learning theorists argue that all learning is mediated, or brought about through cultural tools of various sorts (Kozulin, 2003; Wertsch, 2007). Mediators in instructional settings include not only tangible human and symbolic tools such as teachers, students, texts, and maps, but also less obvious tools such as discussion, drama, text messaging, and dance. Two central concerns of sociocultural theory that inform this theoretical frame are the social origin of individuals’ learning and the consequential role of language in mediating all learning (Kozulin, 1998; Vygotsky, 1978, 1982, 1986). Given the range and diversity of social settings and

language practices that can be identified in any given classroom, sociocultural theory provides a powerful perspective on how learning may or may not be accomplished within specific contexts that have been shaped by singular social, cultural, and linguistic histories.

Multimodal social semiotic theory (Kress & van Leeuwen, 2001) complements sociocultural theory by considering as pedagogically central the vast repertoires of meaning-making modes that teachers and students use in their everyday and classroom practices. By considering, for example, the linguistic as well as the gestural, musical, sculptural, and visual modes through which students may make and transform meaning, multimodal social semiotic theory provides a useful lens through which to study classroom interaction. In particular, multimodal social semiotic theory is “concerned with how human beings make meaning in the world through using and making different signs, always in interaction with someone” (Stein, 2008, p. 875).

Thus, these two theoretical perspectives identify and center around two ideas that have profoundly influenced current views of teaching and learning: Vygotsky’s concept of semiotic mediation (Vygotsky, 1986), how meaning is realized, especially through the use of language; and the semiotic concept of transmediation (Siegel, 1995; Suhor, 1984), what Berghoff, Egawa, Harste, and Hoonan (2000) described as the recasting of meaning across symbol systems, which occurs when students interpret texts that originate in the linguistic sign system and recast that meaning into the visual system in the form of a painting, for example. I will provide a brief overview of each of these concepts before turning to the design of this dissertation study.

1.2.1 Mediation and academic literacy learning

Vygotsky (1982) identified the concept of mediation as “the central fact about our psychology”

(p. 166). From a sociocultural perspective, semiotic mediation—the process by which meaning is realized primarily although not exclusively through language—is consequential to learning (Kozulin, 1998). In instructional settings, students’ everyday concepts learned through their experiences in the world are confronted by the academic concepts used by the teacher and the discipline to carry on the specialized ways of “knowing, thinking, and doing” (Applebee, 1996, p. 39) secondary English, for example. Students mediate their learning of academic concepts by engaging in semiotic activities that allow students to realize their own thinking. Students speak (and engage in other semiotic processes), for example, in order to act (Brooks & Donato, 1994) and that semiotic activity is relevant to and revelatory of students’ thinking (Frawley & Lantolf, 1984). Significantly, mediation changes across contexts and over time, and that change is consequential to students’ development.

1.2.2 Transmediation and academic literacy learning

Transmediation—the translation of meanings from one semiotic system into another (Siegel, 1995)—provides the conceptual tool that I used in this study to link sociocultural and multimodal social semiotic theories of learning. Transmediating understandings across semiotic systems has been shown to expand students’ perspectives and extend the interpretive potential of literary texts (Zoss, 2009). As Whitin (2005) asserted in her study of young children’s use of sketches to interpret literature: “Simultaneously tapping the nonredundant potentials of talk and visual representation extends the generative and reflective power of transmediation” (p. 392).

Although many studies have considered the nature of students’ multimodal composing (e.g., Coiro et al., 2008), few studies have examined how multimodal composing shapes academic literacy learning through close discourse analyses of interactions in classroom contexts

(Jewitt, 2008), and no study, to my knowledge, has examined how multimodality informs dialogic discussions in secondary English contexts. In a recent Standpoints article in *Research in the Teaching of English* Moje (2009) identified the types of research studies that will be able to shed light on the relationship between multimodality and literacy learning: “In sum, comparative and experimental studies could help to pinpoint the source of affordances or challenges presented by multimodal texts or multiple media, while concomitant qualitative analyses could identify the nature of affordances and challenges present in each” (p. 355). By manipulating the use of multimodal and single-mode, or unimodal texts in two classroom conditions and by including close qualitative discourse analyses of students’ engagement with multimodal texts, this dissertation study, responds to Moje’s (2009) call for “new research on new and multi-literacies” (p. 348).

1.3 RESEARCH QUESTIONS

Given the promising but isolated research findings on dialogic discussions and multimodal activities in ELA classrooms, I have devised the following three research questions that hypothesize a dialectical relationship between dialogic discussion and multimodal activity: (a) Is the nature and quality of discussions distinct (and if so, how?) between a class in which students previously engage in a collaborative multimodal activity and one in which they previously engage in a collaborative unimodal activity? (b) What is the nature of the semiotic mediation and transmediation that takes place as groups of students undertake multimodal and unimodal activities? (c) How does semiotic mediation and transmediation shape discussion and literary interpretation? (see Table 1)

Table 1. Research Questions

Research Question	Data Source	Analytic Tool
	Participant Context	
Is the nature and quality of discussions distinct (and if so, how?) between a class in which students previously engage in a collaborative multimodal activity and one in which they previously engage in a collaborative unimodal activity?	--Whole class discussion videos and transcripts --Field notes	Classroom Discourse Analysis --Dialogic Engagement
	--All students in unimodal condition --All students in multimodal condition	
What is the nature of the semiotic mediation and transmediation that takes place as groups of students undertake multimodal and unimodal activities?	--Small group discussion audio files and transcripts --Focal student videos and transcripts --Field notes --Project work --Interview transcripts	Classroom Discourse Analysis --Dialogic Engagement --Semiotic Mediation
	--Focal students in both conditions --Small groups in both conditions	
How does semiotic mediation and transmediation shape discussion and literary interpretation?	--Small group discussion audio files and transcripts --Focal student videos and transcripts --Whole class discussion videos and transcripts --Field notes --Project work --Interview transcripts	Classroom Discourse Analysis --Dialogic Engagement --Semiotic Mediation
	--Focal students --Small groups in both conditions --All students in both conditions	

To answer the first research question, I compared two different sections of the same teacher’s secondary English course and conducted discourse analyses in both conditions by

examining the nature of whole class discussions of literature that were facilitated by unimodal instructional activities in one classroom condition and multimodal instructional activities in the other classroom condition.

I compared the extent to which students and the teacher engaged in dialogic discussions during whole class literary discussions, as measured by a coding scheme that synthesized dialogic moves identified in the relevant research literature (see Appendix A), in the following two conditions: (a) multimodal mediation of discussion and (b) unimodal mediation of discussion. Multimodal mediation of discussion was characterized by students' participation in activities that require the use of more than one semiotic, or sign system as students made meaning from a literary text. For example, students who compiled a soundtrack in order to analyze a literary character and warranted their song choices with a written description had to interpret the literary text in both musical and linguistic semiotic modes. Unimodal mediation of discussion, on the other hand, was characterized by students' participation in single-mode activities only. Students who answered a series of interpretive questions to analyze a literary character, for example, did not have to venture outside of the linguistic mode in order to complete the activity. I collaborated with one secondary English teacher to selectively sample (Patton, 1990; Sipe, 2000) two different class sections that would likely engage in multimodal project work and literary discussions, designed both multimodal and unimodal classroom activities for the two separate classroom conditions, and guided the teacher in planning, implementing, and assessing dialogic discussions of literature.

To answer the second research question that addresses the nature of the semiotic mediation and transmediation that could take place during students' small group multimodal and unimodal activities, I analyzed student-led talk in small groups for evidence of (a) semiotic

mediation—the extent to which language mediated students’ activity (see Appendix B). Conducting classroom discourse analyses allowed me to study both the nature of semiotic mediation and the nature of transmediation as these processes informed students’ interpretive practices. By examining classroom discourse in small groups as students worked together through multimodal or unimodal tasks *and* in large groups as the teacher facilitated dialogue, I added another layer of complexity to the design of this study. Since the research literature has revealed multiple important differences that may exist between student-led and teacher-led classroom discussions (Almasi, 1995; Maloch, 2002; Marshall, Smagorinsky, & Smith, 1995; Nystrand, Gamoran, & Heck, 1993; Swann, 2007), examining these two discussion contexts separately provided multiple opportunities for me to study how students talked about literature when different social dynamics were at play.

Finally, I addressed how transmediation shaped discussion and literary interpretation by tracing students’ utterances during discussion back to their multimodal activity and the talk that occurred during that activity. I supported my analyses of students’ interpretive development with analyses of the products of students’ multimodal and unimodal collaborative project work. In addition, three focal (LeCompte & Preissle, 1993) students in the multimodal condition and three focal students in the unimodal condition drew on their multimodal and unimodal products to reflect on three corresponding literary texts during semi-structured interviews with me at the end of the semester (see Appendix C). These interviews provided a rich source for me to triangulate findings.¹ Focal students were selected based on their responses to a background survey that was

¹ Although the interview genre may suggest a monologic pattern of discourse to some students (i.e., the teacher/researcher asks questions and the student responds with either correct or incorrect answers), I constructed questions that sought to establish my interest in creating a dialogue with students about a piece of literature that they had read during the semester.

distributed at the beginning of the semester. Students' responses to this survey allowed me to create small groups that included diverse experiences in terms of students' multimodal literacy practices.

I hypothesized that students in the multimodal condition, when compared to students in the unimodal condition, would (a) participate more frequently during whole class discussions, (b) elicit more varied interpretations of the literary text being discussed, (c) engage in more dialogic "spells" during whole class discussions (Nystrand et al., 2003, p. 136), (d) articulate novel interpretations of the text during the whole class discussion as a result of listening to and taking up others' ideas, and (e) assert, more frequently, those aspects of dialogic engagement in Appendix A that pertain specifically to students (Challenge, Classroom Culture/Group Process Metatalk, Explore Possibilities/Perspective Taking, Extending/Elaborating, Intertextuality, Nonstrategic Concessions/Rethinking, Open Discussion, Student Questions, and Uptake).

1.4 DESCRIPTION OF METHODOLOGY

1.4.1 Contexts and participants

Data for this study were collected from two secondary English class sections of a course taught by one teacher who valued the role of discussion as an instructional tool. I drew on

Although I was particularly interested in understanding how students were able to reflect on their own learning during the interview, I was keenly aware of the influences of power dynamics and social desirability issues that may arise during such interviews. In the hopes of limiting the biasing effects of these forces, I sought to establish "conversational partnerships" (Rubin & Rubin, 2005, p. 83) as I conducted responsive interviews, (Rubin & Rubin, 2005) with students, emphasizing the fact that I was interested in understanding what students meant rather than evaluating the accuracy of their responses.

recommendations from teacher educators to identify the teacher for this study. Using the Student Background Survey (Appendix D), I identified six focal students (three students in each condition) whose participation in this study I traced closely throughout the investigation. Focal students in this study had to have turned in their consent forms, completed the Student Background Survey, and attend classes regularly.

1.4.2 Procedures

Prior to the implementation of multimodal projects and classroom discussions that were the foci of my analyses in the treatment condition, I collected data from multiple sources during the first four weeks of the study to provide a “thick description” (Geertz, 1973) of each classroom condition as a sociocultural context in which the students’ and the teacher’s epistemological stances toward learning were revealed through the everyday interactions that occurred in each classroom setting. During the first half of the semester, I (a) observed two class meetings per section, (b) videotaped and transcribed two whole class discussions of literature, (c) distributed Student Background Surveys, and (d) wrote field notes focusing specifically on the norms for interaction in each classroom context (Emerson, Fretz, & Shaw, 1995).

During the second half of the semester, I examined the implementation of three cycles of multimodal or unimodal project work, followed by whole class discussions. For each cycle, I (a) audiotaped planning and debriefing meetings with the teacher, (b) audiotaped, videotaped, transcribed, and coded small group multimodal or unimodal project work to examine how

students mediated and transmediated literary understandings in each condition,² (c) videotaped, transcribed, and coded whole class discussions, and (d) conducted end-of-the-semester interviews with three focal students in each condition.

1.4.3 Data sources

Data sources in this study included the following: (a) video and transcripts from three cycles of small group multimodal and unimodal collaborative activities, (b) video and transcripts from three whole class discussions in both conditions, (c) interview transcripts with focal students in each condition, (d) field notes from classroom observations during the first half of the semester, (e) transcripts from planning and debriefing meetings with the secondary English teacher, (f) student data from a background survey in which students reported their out-of-school and multimodal literacies, and (g) students' multimodal and unimodal project work. Data sources "c," "d," "e," and "f" were used to triangulate data collected through analyses of small group and whole class discussions and students' multimodal and unimodal project work.

1.4.4 Description of data analysis and interpretation

Data analysis was ongoing throughout the study. During the first half of the semester, I drew on my field notes, Student Background Survey, and selected classroom discussion transcripts to describe the discourse environment of the two classrooms that I studied. I shared these findings

² I videotaped focal students while all other small groups were given digital voice recorders to use while they work collaboratively. One digital video recorder was also set up so as to capture the entire class from a stationary position in the classroom.

with the classroom teacher in preparation for the implementation of students' multimodal or unimodal projects and the subsequent dialogic discussions.

For the first two cycles of project work, students in the multimodal condition engaged in collaborative multimodal activities followed by whole class discussions of literature. During the final cycle, however, students who had previously completed collaborative multimodal activities prior to whole class literary discussions completed collaborative unimodal activities before they participated in a whole class discussion of literature. Students who had completed collaborative unimodal activities during the first two cycles of this study completed a collaborative multimodal project during the last cycle. This design decision allowed me to analyze the particular role that the modality of the collaborative activity played in shaping students' talk during these classroom activities as well as the whole class literary discussions that followed.

I transcribed and coded students' talk during small group multimodal and unimodal project work using the scheme provided in Appendix B. The dialogic or monologic character of whole class discussions was determined using the dialogic engagement coding scheme provided in Appendix A. Finally, interviews, field notes, planning and debriefing meetings with the teacher, and students' multimodal and unimodal products triangulated findings that emerged from my classroom discourse analyses.

Transcribed data were uploaded to a Microsoft Excel worksheet. Each turn at talk comprised a row in the worksheet. Each teacher turn received one code from Appendix A. When two or more codes were appropriate, the code that best captured the essence of the discursive move was used. Student turns at talk received three codes. First, student turns were coded for the discursive move that described the turn at talk (e.g., uptake, challenge, elaborate, etc.). Next, student turns were coded for the kind of evidence that was used to support any claims that were

made (inference, prior knowledge, or text). Finally, student turns were coded for the types of reasoning that were provided during students' responses during the whole class discussion (character, event, hypothetical, personal, or language). The coding scheme was adjusted as it became clear that some codes were never used while other codes overlapped consistently with one another in these particular transcripts. Overlapping codes were subsumed under other codes or eliminated altogether. A doctoral student in education and I met to discuss the codes and practiced coding one transcript together. The doctoral student and I then coded and debriefed two additional transcripts before inter-rater reliability was established at an appropriate level (.70). During these meetings codes were refined to most faithfully represent participants' meanings. After inter-rater reliability was established, I coded the remaining whole class discussion transcripts for dialogic engagement.

1.5 THEORY, RESEARCH, AND PRACTICE

By examining the dialectical nature of the talk that shaped and was shaped by students' participation in multimodal and unimodal classroom activities, I was able to identify the ways in which transmediation influenced or failed to influence students' participation in dialogic discussions of literature. I anticipated that students' transmediation and participation in multimodal classroom activities would expand the interpretive potential of texts, which, in turn, would enhance the dialogic nature of literary discussions, which ultimately could improve students' literacy learning. Such a finding would support the use of multimodalities and multiliteracies to mediate students' appropriation of linguistic and academic literacy skills, such as dialogic discussions of literature, that have resulted in students' academic achievement—a

potential finding that is of the utmost importance in an instructional culture informed by high-stakes testing (Hamilton, 2003).

This study added to our understanding of students' multiliteracies by articulating the affordances and/or limitations of multimodal activities as they informed effective academic literacy instruction. Equally importantly, this study informed the research literature on dialogic discussions and the instructional activities that may facilitate students' participation in these types of discussions. Making room in the curriculum for students and teachers to engage in multimodal activities that influence dialogic discussions of literature may also activate students' multiple intelligences (Gardner, 1993; Smagorinsky & O'Donnell-Allen, 1998) and engage teachers to take on the stances of learners, which can function to improve student engagement and participation in academic literacy tasks (Hull & Schultz, 2001). Furthermore, drawing on and identifying the conditions under which students' out-of-school literacies may be used as resources for academic literacy learning may increase student motivation and self-efficacy—central aspects of adolescent literacy that have been related to achievement (Alvermann, 2002).

1.6 SUMMARY OF INTRODUCTION

In this chapter, I have outlined a dissertation study that sought to identify how two promising instructional approaches—multimodal activities and dialogic discussions—could improve students' academic literacy learning by leveraging students' reported out-of-school multiliteracies. I warranted this study by identifying possible theoretical links between multimodality and dialogic discourse through the concept of transmediation, which may “prime” students' interpretive thinking and facilitate their effective participation in dialogic classroom

interactions. By incorporating sociocultural perspectives, particularly the concept of mediation, I implicated the social origins of students' mental processes as students interact with others to make meaning of a literary text. In my review of the empirical research literature on literary discussions and the theoretical perspectives that this literature invokes in the next chapter, I provide further warrants that identify why this dissertation study was needed and how this project sheds light on the ways in which students' meaning-making across semiotic systems is consequential to the knowledge that students internalize.

1.7 ORGANIZATION OF CHAPTERS

In Chapter 2 of this dissertation, I provide an empirical and theoretical review of dialogic discussion, drawing on the concept of transmediation as it functions to warrant the use of multimodal instructional activities to facilitate students' participation in dialogic discussions. I consider the particular moves that teachers and students make during dialogic discussions of literature and the learning outcomes that have been attributed to such dialogic classroom interactions in order to illustrate how such discussions shape students' academic literacy learning when dialogic discussions are effectively enacted. Finally, I provide some potentially useful recommendations for how dialogic discussions might be achieved in practice in anticipation of the current research project.

Chapter 3 of this dissertation outlines the methods that I used to address the research questions that guided my analysis of how the recommendations outlined in Chapter 2 shaped students' successful participation in dialogic discussions of literature in one secondary ELA classroom. I discuss the data sources that I used in this study and support my choice of research

methods by connecting these choices with my specific research questions and grounding methodological decisions in sociocultural and multimodal social semiotic theories of teaching and learning.

I have organized the findings from this study in the following manner: Chapter 4 will present findings from (a) the planning and initial observation period prior to and during the first two weeks of the semester, (b) the baseline discussion period that occurred during week 3, and (c) cycle 1, which occurred during week 7, in each classroom condition. Chapters 5 and 6 will present the findings from cycle 2 (week 13) and cycle 3 (week 20), respectively. For each cycle, I present discourse analyses of focal students' small group discussions in both unimodal and multimodal classroom conditions. I follow these analyses of small group talk with analyses of the products of the focal students' small group unimodal or multimodal collaborative work. Finally, I provide discourse analyses of the whole class discussions in each condition. I triangulate these findings with data compiled from interviews with focal students in chapter 7.

In Chapter 8, I discuss what the findings from this study mean for research and practice in ELA. I provide implications for teachers and researchers interested in the learning opportunities that can be provided by small group and whole class discussions of literature. Finally, I close this dissertation with a call for further research that would articulate a set of design principles to guide the type of multimodal instruction that promotes adolescents' dialogic discussions of literature.

2.0 CHAPTER II: LITERATURE REVIEW

In recent years, researchers working in the sociocultural and sociocognitive traditions have studied how classroom discussions mediate students' understandings of literary texts (Almasi, O'Flahavan, & Arya, 2001; Applebee et al., 2003; Miller, 2003; Nystrand, 2006; Nystrand et al., 2003). Meaning, these authors have asserted, does not reside solely in the author's intentions for the text, but results, rather, from the interactions among speakers, listeners, and texts (Nystrand, 1997). Researchers have also highlighted a lack of use of discussion as an instructional tool (Nystrand & Gamoran, 1991) and the lack of the use of instructional practices that would support discussions that are practiced in ELA classrooms in the United States (Applebee et al., 2003). It follows that the quality of classroom discussions could be transformed so as to enhance the quality of meanings that students take from literature instruction.

This chapter seeks to warrant the empirical investigation of such a transformation by providing a review of the findings from the existing literature on dialogic classroom discussions to highlight how encouraging students to interpret literary texts through multimodal collaborative classroom activities might facilitate dialogic classroom discussions. Specifically, how might a promising instructional approach, such as the use of multimodal activities that draw on students' multiliteracies, function as a scaffold that prepares students to participate in a novel pattern of classroom discourse, such as dialogic discussion?

Drawing on the work of Bakhtin (1981)—whose scholarship educational researchers have

attempted to integrate into Vygotsky’s sociocultural theory (Ford & Forman, 2006)—Nystrand and his colleagues (Applebee et al., 2003; Christoph & Nystrand, 2001; Nystrand, 1997; 2006; Nystrand & Gamoran, 1991; Nystrand et al., 2003) have led the empirical pursuit to identify Bakhtin’s concept of dialogism as it exists in ELA classroom discussions of texts. Dialogic discussions have been operationalized using the following five variables that will be elaborated throughout this chapter: (a) open discussion (student-to-student discussion lasting longer than 30 seconds), (b) uptake (using previous students’ responses to extend or deepen discussion), (c) authentic questions (questions posed that do not prompt pre-specified answers), (d) evaluation types (rejoinders to student responses), and (e) cognitive level (the types of responses that questions elicit) (Nystrand et al., 2003). These concepts have shaped both how researchers have approached empirical investigations of dialogic classroom discussions as well as the types of findings that have emerged from these studies.

I have chosen to review articles that use the word “dialogic” to describe the type of classroom discussion that had been investigated, as well as all discussions that “provide the public space for student responses, accommodating and promoting the refraction of voices representing different values, beliefs, and perspectives, and ideally including the voices of different classes, races, ages, and genders” (Christoph & Nystrand, 2001, p. 252) but may not use the term “dialogic” to describe students’ and teachers’ participation in discussion. This decision allowed me to review and incorporate the findings from a wider range of research articles that have all described the central patterns of classroom talk that comprise the conceptual focus of this investigation.

A substantial body of knowledge on the role of discussion in promoting student learning has developed since the first empirical investigations of discussions occurred over 150 years ago

(Nystrand, 2006). In the first part of this chapter, I review the recent and relevant empirical research that has helped to build this body of knowledge by identifying the themes that characterize the types of benefits and challenges that result from engaging in dialogic discussions of literature. I then build on the findings from existing research on dialogic discussions that leverage student learning to describe an approach to discussion-based ELA instruction that incorporates findings from the empirical research literature and considers (a) the goals of dialogic discussions of literature, (b) teacher moves that promote dialogic discussions, (c) what students do during successful dialogic discussions, (d) the learning outcomes that result from substantive engagement in dialogic discussions, (e) obstacles that may prevent students and teachers from engaging in dialogic discussions, and (f) the potential usefulness of a novel approach that would facilitate students' substantive engagement in dialogic discussions of literature. The second half of this chapter draws on the sociocultural concept of mediation and the semiotic concept of transmediation to develop the theoretical framework for a multimodally-mediated dialogic discussion.

Taken as a whole, this framework suggests that (a) dialogic discussions shape students' literacy learning, (b) students and teachers must learn how to participate in dialogic discussions in order to avoid falling back into traditional "predetermined-question-and-known-answer" patterns of instructional discourse, (c) engaging in multimodal activities scaffolds students' and teachers' appropriation of dialogic discussions by promoting students to engage in processes of transmediation, and, finally, (d) transmediation results in students' expanding their repertoires of interpretive practices when engaging with print texts, such as students encounter in ELA courses of study.

2.1 DIALOGIC DISCUSSION AND LITERACY LEARNING

Researchers in the field of literacy have considered the extent to which dialogic classroom discussions inform students' learning of the disciplinary practices of English (Applebee, 1994, 1996; Applebee et al., 2003; Langer, 1993; Marshall et al., 1995; Nystrand, 1997; 2006; Nystrand & Gamoran, 1991; Nystrand et al., 2003). The goals of dialogic discussions can be conceptualized "on the ground" in the classroom settings in which they take place as well as within the larger cultural conversations (Applebee, 1996) that situate education as a philosophical and empirical object of inquiry. Successful dialogic discussions incorporate effective instruction (Langer, 1993) without requiring students to ascribe to a teacher's particular or canonical interpretation of a text—a practice that situates texts as static entities, the meanings of which can be mined through literary analysis based on the ideological predilections of a particular school of literary criticism or a particular teacher's worldview.

Most importantly for literature and literacy instruction in the ELA classroom, dialogic discussions provide the space for the exploration of multiple perspectives. Beach, Appleman, Hynds, and Wilhelm (2006) make an important point in this regard: "When students are bringing in a range of different voices and perspectives, they are more likely to disagree with each other, leading to a more lively exchange of ideas than if they all shared the same perspectives" (p. 88). Furthermore, dialogic discussions can lead to conceptual changes in both students' and educators' thinking. Dialogic interaction with texts, with teachers, and with other students results in the generation of alternative perspectives, which students must confront in literature and in life (Appleman, 2000; Beach et al., 2006).

In addressing multiple perspectives through dialogic interaction, students are confronted with the tension that is a key source for students' substantive engagement in their own learning

(Bakhtin, 1981; Nystrand, 1997). The following claim from Almasi (1995) seems especially relevant in this regard:

Central to the process of creating conceptual change is the notion that conflicts must be confronted head on. Students need to verbalize their own thoughts in order to recognize that another interpretation differs from their own in order for conceptual change to occur. (p. 317)

The same process that resulted in conceptual change for students in Almasi's (1995) study is relevant to the conceptual change that educators must address when embracing dialogic discussions to mediate students' thinking and learning.

Dialogic discussions encourage students to address the tension inherent in recognizing that alternative perspectives on the same text exist. Practice in such ways of thinking and discussing, therefore, may encourage a broader transformation in the ways in which literature has been traditionally learned and taught. Imagining the classroom as a site in which students engage in participating in the authentic and productive discourses of the discipline, for example, provides a compelling alternative to the ways in which teachers and students are traditionally positioned as givers and receivers of information, respectively (Beach et al., 2006).

Current trends in the discipline of literary criticism have influenced teachers' own learning of English as a discipline, which often influences how they teach in their subject area (Langer, 1993). New Criticism's influence on teachers' beliefs about literary interpretation—specifically, that one answer exists in response to text-based questions—stands in direct opposition to the interpretive potential inherent in texts read from dialogic perspectives (Langer, 1993). Such fixed perspectives on the nature of literary meaning parallel larger curricular conversations about “what counts as learning and what learning counts” (Green & Luke, 2006) and how teachers'

beliefs support or prevent students from engaging in authentic disciplinary practices (Prawat, 1992).

Furthermore, Applebee (1994, 1996) anticipated Sfard's (1998) reflection on the acquisition metaphor and participation metaphor through which learning and teaching can be approached by arguing that the goals of education must move away from an emphasis on conventionally-determined and ideologically-driven decisions (Burroughs & Smagorinsky, 2009) made about what counts as knowledge and toward ways of knowing and doing that can be experienced by juxtaposing interesting, relevant, and significant texts from multiple perspectives. In essence, Applebee (1996) argued that instead of ensuring that students know about a particular academic discipline, educators should lead students to participate in the conversations that have shaped, shape, and will continue to shape what the discipline means. Dialogic discussions promote students' participation in these "extended curricular conversations" (Applebee et al., 2003, p. 693).

2.1.1 Learning outcomes associated with dialogic discussions

Substantive engagement in dialogic discussions mediates students' learning of the discipline of English (Nystrand & Gamoran, 1991). Researchers have identified the benefits of engaging in these types of discussions for a diverse population of students including very young students (Almasi et al., 2001) as well as adolescent students (Rex & McEachen, 1999), students learning English (Martínez-Roldán, 2003), students who have overcome various types of learning disabilities (Berry & Englert, 2005), students who lived in urban, rural, and suburban areas in various parts of the United States (Marshall et al., 1995), and students who have been tracked into different classrooms based on their "ability" levels (Applebee et al., 2003). These studies

highlighted how students have used discussion as a means of mediation for learning various ways of knowing, thinking, and doing that are valued in the discipline of English.

Researchers have shown that promoting students' negotiation of text-based meanings through discussion relates to improvements in students' disciplinary understanding of literary texts (Applebee et al., 2003); improved reading comprehension and ability to self-monitor their own comprehension of texts (Beck et al., 1996; Beck & McKeown, 2006); enhanced writing performance (Nystrand, Gamoran, & Carbonaro, 1998; Reznitskaya et al., 2001); increased ability to engage in literary criticism by valuing, evaluating, and critiquing texts (Eeds & Wells, 1989); and, finally, enhanced traditional literacy skills that include argumentative reasoning and "making-a-case" using textual evidence for support of one's claims (Chinn, Anderson, & Waggoner, 2001; Rex & McEachen, 1999). These findings suggest that the traditional English language arts—reading, writing, speaking, and listening—can all be informed by students' substantive engagement in dialogic discussions.

2.1.2 Teaching practices that support dialogic discussions

Nystrand (1997) conceptualized the dialogic teacher's role to include the following moves: (a) moderate discussion, (b) direct discussion, (c) probe students' thinking, (d) foresee challenges to students' thinking, and (e) analyze students' responses (p. 17). The teaching moves discussed below illustrate the active role that the teacher plays in promoting and facilitating dialogic discussions. I have organized these consequential teaching practices that facilitate students' participation in dialogic discussions into the following three categories: (a) linguistic moves, (b) nonverbal moves, and (c) general pedagogical moves. Identifying these important teaching practices is important when considering how students' out-of-school literacies might be

incorporated into the classroom. As Hull and Schultz (2001) have noted, some contemporary studies of in-school versus out-of-school literacies have simplified the role of instruction in the classroom, often praising all out-of-school practices and disparaging all in-school practices. Hull and Shultz (2001) have suggested that the relationship between teaching and learning in these different contexts is more complicated and nuanced than some studies have implied.

2.1.2.1 Linguistic teacher moves

Teaching practices that supported dialogic classroom discussions included (a) asking authentic questions, that is, questions that did not have one predetermined answer that typically require students to display information that they have already encountered, (b) taking up previous students' responses to extend discussion, and (c) responding to students' ideas with high-level evaluations that provoked further discussion (Applebee et al., 2003). Nystrand and Gamoran (1991) determined that only slight increases in the amount of uptake that a teacher engaged in would have predicted robust student achievement gains in the measures they were using to identify student learning: a test of literature achievement that included recall questions, questions that probed for in-depth understanding, as well as questions that required students to synthesize information about five literary texts that they had read during the academic year (p. 276). Finally, providing a metalanguage to model participation in discussions scaffolded primary-grade students' appropriation of dialogically-organized classroom discourse (Maloch, 2002). These findings represent some of the consequential ways in which teachers' classroom talk facilitated dialogic discussions and related to student achievement in learning about literature. An elaborated list of teacher moves that facilitate dialogic discussions can be found in Appendix A.

2.1.2.2 Nonverbal teacher moves

Not all teacher moves that promoted dialogic discussions took place during discussions or through linguistic moves by the teacher, however. Wait time, or allowing for silence to exist in the classroom while students thought about their responses to questions is a teacher move that supported students' participation in discussions (Cazden, 1988).³ Mapping the discussion on paper as it unfolded also supported one teacher's progress toward establishing a dialogic classroom environment (Billings & Fitzgerald, 2002). Such a map provided a visual record, as it were, of students' participation and the patterns of participation that occurred during the classroom discussion. This record was used by the teacher to assess the quality of the discussion, reflect on how the discussion developed, and incorporate this information to plan for future discussions.

2.1.2.3 Pedagogical teacher moves

Other teacher practices that promoted dialogic discussions of literature included spontaneously scaffolding student learning and identifying and capitalizing on "teachable moments" (Eeds & Wells, 1989, p. 7); establishing a classroom environment in which students had a standing invitation to ask questions and raise issues (Hadjioannou, 2007); connecting discussions to previous class discussions to create curricular coherence (Maloch, 2002); co-constructing interpretations with students (Marshall et al., 1995); transforming the physical environment of the classroom to facilitate discussion (Billings & Fitzgerald, 2002); using narratives to create

³ Although not all silences in the classroom will function this way, especially when viewed from a perspective in which unequal power structures may reveal themselves through the silence of some but not others (Foucault, 1997), silence after a teacher or student poses a question can allow students adequate time to think about and respond to ideas introduced during the discussion (Schultz, 2009).

hybrid discourses by connecting “official” discourses and modes of learning in school with “unofficial” discourses and modes of instruction (Gutiérrez, Baquedano-López, & Tejada, 1999; Juzwik, 2006; Juzwik et al., 2008); and engaging in concept mapping and metaphorical thinking (Whitin, 2005). These teacher moves helped to build the classroom as a site in which diverse voices and perspectives were represented and negotiated. The linguistic, nonverbal, and pedagogical teacher moves described above can support dialogic discussions of literature. Furthermore, these moves are observable and can be identified when researching the extent to which literary discussions can be described as dialogic.

The various activities described in this section enact a type of discussion that has as the instructional goal of developing, rather than solely displaying, understanding. Applebee et al. (2003) found that when teachers combined discussion-based instructional approaches including dialogic discussions and extended curricular conversations with high academic standards (as measured by the amount of homework given per week and whether students read canonical or young adult literature) across all track levels, students improved their performance on complex literacy tasks. Thus, teachers may promote students’ participation in dialogic discussions of literature by providing students with various opportunities to engage in the construction of their literary interpretations.

2.1.3 Student practices that support dialogic discussions

Student practices that supported dialogic discussions of literature could be broken down into two broad types of practices: (a) cognitive and linguistic and (b) social and interpersonal. Since the very nature of dialogic discussions of literature aimed to engage students in both of these practices, the categories that I have established admittedly leak, overlap, and blend into each

other. It is also important to keep in mind that simply participating in these practices did not guarantee that students would experience the learning goals outlined in this chapter.

2.1.3.1 Cognitive and linguistic practices

Students' use of textual evidence to support their opinions during discussion (Hadjioannou, 2007), their engagement in hypothetical reasoning (Morocco & Hindin, 2002), posing questions about the text (Nystrand et al., 2003), "linking" old and new topics, "embedding" (extending the original topic to look at "deeper" levels of interpretation), and drawing on various interpretive tools such as making intertextual connections (Almasi et al., 2001) were all cognitive practices that characterized productive student participation during discussions. Whitin (2005) identified successful ELA discussion participants as those who revised ideas and were able to justify their own thinking. Donato and Brooks (2004) argued that literary discussions held the potential for students of foreign languages to have the opportunity to engage in the cognitive and linguistic activities of hypothesizing and elaborating ideas in the target language during a literary discussion when both teachers and students capitalized on these opportunities.

Envisionment building activities refer to both the cognitive as well as linguistic processes that students draw upon to understand an ever-changing literary text world during classroom discussions (Langer, 1993). During envisionment building, students take on various stances as they read, such as "Being Out and Stepping into an Envisionment," in which students attempt to assimilate the information from the text into what they already know about the text and the world. An example of this stance occurs when students spontaneously ask about the time period in which a story is set, for example. Langer (1995) identified the second stance as "Being In and Moving Through an Envisionment," in which students "try out" ideas as a way to work their way toward a fuller understanding by piecing together details from a text, for example. Other stances

include “Stepping Out and Rethinking What One Knows,” (e.g., the theme of a piece of literature provokes students to reconsider how they view ideas related to that theme in their own lives) and “Stepping Out and Objectifying the Experience” (e.g., relate the text to one’s own experience, compare an author’s craft across texts, and so forth) (Langer, 1995, pp. 15-22).⁴

As Langer (1995) observed: “An envisionment isn’t merely visual, nor is it always a language experience. Rather, the envisionment encompasses what an individual thinks, feels, and senses—sometimes knowingly, often tacitly, as she or he builds an understanding” (p. 14). Students who receive the instructional and multimodal space to engage in such envisionment building may be more likely to become aware of their own thinking during a dialogic literary discussion. Furthermore, when students make their envisionments known, interesting possibilities for dialogue emerge that serve to validate students’ interpretive thinking.

Just as asking spontaneous questions about a text played a key role for students as they envisioned literature in Langer’s (1993, 1995) research, students who posed questions during discussions consistently catalyzed “dialogic spells,” or extended dialogic interactions in the midst of more familiar question-and-answer discourse patterns in a research study conducted by Nystrand et al. (2003). During dialogic spells, students’ engagement increased, students built off of previous instructional conversations, students posed questions while teachers limited their known-answer pattern of posing questions, and students answered teachers’ questions without having to be called upon or prompted to answer (Nystrand et al., 2003, p 150). Significantly,

⁴ These stances need not occur in a linear manner during class discussions of texts, nor do they all need to occur in order for students to develop a useful envisionment. Not all texts will necessarily relate to students’ lives to the extent that they would or should rethink what they know. Langer (1995) identified the general value of these stances during envisionment building activities: “The notion of stances provides us with a way to conceptualize a seamless process that occurs when students develop understandings” (p. 21).

when students actually asked an authentic question (a question that did not have one predetermined answer), the discursive interaction that followed was almost always dialogic, consisting of uptake, more authentic questions, and open discussion (Nystrand et al., 2003).

2.1.3.2 Social and interpersonal practices

Students' social and interpersonal practices were also consequential to learning in dialogic discussions of literature. Social and interpersonal practices that supported such discussions included taking on multiple perspectives from both textual and audience points of view (Langer, 1993), postponing one's judgment and taking up peers' ideas (Whitin, 2005), actively and respectfully listening to other students (Hadjioannou, 2007), participating in open and decentralized, or student-centered discussions (Almasi, 1995; Applebee et al., 2003), drawing on narrative storytelling to explain textual events during classroom discussions of literature (Martínez-Roldán, 2003), taking up others' ideas to extend discussion (Nystrand, 1997), and negotiating textual interpretations among students and the teacher (Morocco & Hindin, 2002). These findings have illustrated students' diverse abilities that afforded them the opportunities to learn how to participate in and learn from discussions of literature as documented through case studies, experimental and comparative analyses, and microethnographic analyses of classroom discourse.

2.1.4 Teacher challenges for promoting dialogic discussions

The educational reform policy implementation literature (Coburn, 2005; Knapp, Shields, & Turnball, 1995) has documented how, in some instances, structural forces including school administration personnel have supported, reinforced, and favored traditional patterns of

classroom discourse over more dialogic styles of classroom discussion. Other obstacles that have prevented the use of dialogic discussion in classrooms include some teachers' lack of theoretical knowledge undergirding novel approaches to instruction (Wilson & Ball, 1996), and some teachers' lack of understanding of what a new instructional approach, such as dialogic discussion, entails (Cohen & Ball, 1990; Odden, 1991), and how one might go about implementing it (Honig, 2006).

Larson (2000) attributed the reason as to why teachers do not more regularly enact discussions in their classroom to teachers' own understanding of what discussion means. Larson (2000) found that some of the teachers he studied included recitation among discussion activities in their classrooms, a finding also supported by Nystrand (1997). Larson (2000) also found that teachers would sometimes give up on promoting discussion in their classrooms because of complications that would arise due to students' "poor behavior," which the teachers felt they could not effectively manage during discussion activities.

Further complicating the seamless implementation of dialogic discussions into ELA classrooms, Swann (2007) analyzed the discourse of a group of students who artificially incorporated the classroom rules for discussion into their small group literary discussions. Some students went so far as to use classroom discussion to intimidate some students and silence others' critical interpretations to conform to the more popular and canonical perspectives of a text (Pace, 2006; Swann, 2007). Swann's (2007) analysis, as a result, problematized the use of classroom discussions that are deemed effective based solely on students' appropriation of particular discourse strategies since these strategies might be used mechanically and unproductively.

Systematic and strategic use of certain discussion strategies has also thwarted the use of dialogic discussions as an instructional tool in other literacy classrooms. Utterances that resembled Nystrand's (1997) concept of uptake, such as "To go off of what he/she said," can mask what is an inherently mechanical utterance. In her study of de-centralized (student-led) classroom discussions of literature, however, Maloch (2002) described how the classroom teacher stepped into discussions when conversational techniques were inauthentically incorporated into the discussion to scaffold students' talk in ways that reacted actively and meaningfully to their specific situations. The teacher used metalinguistic interventions (using follow-up questions and responsive phrases, for example) to scaffold students' appropriation of various discussion strategies. Accumulating and sharing this knowledge over time led to the teacher's gradual release of responsibility for maintaining discussion over to students. Thus, the teacher played a critical role in ensuring the quality and authenticity of dialogic discussions.

2.1.5 Transitioning from "gentle inquisitions" to "grand conversations"

In an age in which, on average, less than one minute per class day involved authentic discussion in eighth- and ninth-grade ELA classrooms (Nystrand, 2006), the role of discussion, the uses of discussion, and the consequences of the uses of discussion have perhaps never before deserved a more careful and thorough re-conceptualization. Traditional classroom dialogue has been dominated by Initiation-Response-Evaluation (I-R-E) (Cazden, 1988; Meehan, 1979) patterns of discourse. During I-R-E patterns of interaction, the teacher asks (initiates) a question to which a student responds with either a correct or incorrect answer. The teacher then determines (evaluates) the value of the response. Eeds and Wells (1989) characterized this well-documented question-and-answer routine as a "gentle inquisition," which they contrasted with the "grand

conversations” that were made possible when teachers and students co-constructed meaning through dialogue. However, “unless some deliberate action is taken to achieve some alternative” to the gentle inquisitions identified by Eeds and Wells (1989), Cazden (1988) asserted that “students and teachers will fall into I-R-E patterns of interaction at all grade levels” (p. 53).

Indeed, Nystrand (2006) has identified the I-R-E as the pervasive “default” pattern of teacher/student interaction. I-R-E discussions often perpetuate the banking model (Freire, 1970) of education in which the teacher deposits bits of decontextualized information into student-receptacles. For the purposes of comparison, these classrooms can be viewed as monologic (Bakhtin, 1981). Completely monologic classroom discussion “inverts the natural logic of inquiry” (Nystrand et al., 2003, p. 140) and results in “gentle inquisitions” rather than “grand conversations” (Eeds & Wells, 1989).

Researchers have implicitly, and often explicitly, highlighted the integral role of the teacher in terms of constructing authentic dialogic classroom environments. However, traditional (I-R-E) patterns of classroom discourse exert a powerful force on teachers and students such that even the most well-meaning of progressive teacher-reformers and students with years of experience “doing school” struggle to refrain from reverting back to these interactional styles (Billings & Fitzgerald, 2002; Cohen, 1990). This is evidenced by some students’ appropriation of “teacherly” monologic voices when they are first given the opportunity to engage in dialogic discussions (Eeds & Wells, 1989). As a compromise, some researchers have identified how recall questions, a type of question that requires students to elicit information provided explicitly in a text, could be used as “kindling” to “ignite” a dialogic “fire” (Greenleaf & Freedman, 1993; Kachur & Prendergast, 1997).

The research literature that describes the most powerful uses of dialogic discussion to promote students' literature and literacy learning frequently describes the transformation of the entire classroom culture and not merely the way that students and teachers verbally interact when talking about any given text: "Developing a dialogic classroom is not just about developing skills, but about ensuring an overall classroom that promotes collaborative work and the sharing of ideas" (McIntyre, Kyle, & Moore, 2006, p. 60). In an especially illustrative study of the development of a dialogic classroom, Kong and Pearson (2003) described the gradual release of responsibility from the teacher to the students as the teacher guided students' participation in discussion by initially telling students how to engage in dialogic discussion, then modeling and scaffolding student talk, and finally "teaching from behind" by facilitating students' power and control over the discussion.

In both the McIntyre et al. (2006) study and the Kong and Pearson (2003) study, these shifts toward dialogic discussions coincided with marked improvement in student achievement. Thus, the success of dialogic discussions depends at least in part on the teacher's ability to establish a collaborative classroom atmosphere in which students' ideas are valued and incorporated into the curriculum and the teacher's ability to mediate students' learning by modeling dialogic interactions, intervening when necessary to facilitate students' discussion, and eventually transferring the responsibility for maintaining dialogic discussion to students.

To take another coupling of research studies, Christoph and Nystrand (2001) and Billings and Fitzgerald (2002) documented two teachers' transitions from monologic to dialogic classrooms. These researchers identified the following characteristics of dialogically-organized classrooms: (a) the use of interpretive and authentic questions, (b) student uptake of other students' questions, (c) high-level teacher and student evaluation, including teachers' mapping of

the discussion as it unfolded, (d) sharing the floor, and (e) scaffolding and modeling critical thinking and civil responding by postponing judgment, using tentative language, entertaining multiple points of view, hypothesizing issues and dilemmas, valuing the contribution of students, revisiting and revising ideas, tolerating ambiguity, and seeking connections among students' ideas. Although both of the teachers in these studies were highly experienced and well-respected educators in their communities, facilitating dialogic discussions presented unforeseen challenges for both their students and themselves.

Billings and Fitzgerald (2002) documented “Mrs. Tully’s” attempt to transform her classroom as she sought to incorporate dialogic discussions into her repertoire of pedagogical practices. A 14-year veteran of the teaching profession, Mrs. Tully had completed training and professional development related to leading dialogic discussions. Yet, when confronted with data that revealed relatively consistent patterns of traditional classroom discourse (e.g., dominance of teacher talk and the predominance of initiation-response-evaluation interactions), Mrs. Tully commented, “[It’s] just my style” and “My whole concept of teaching is to question. [I] ask 14 questions for every statement” (Billings & Fitzgerald, 2002, p. 922).

Mrs. Tully struggled to transform her classroom into a site of dialogic inquiry; despite obvious progress toward dialogism, her classroom still included such monologic elements as (a) the teacher’s dominance in terms of quantity of talk, (b) the purpose of the discussion determined by what the teacher deemed important, (c) I-R-E patterns of classroom conversation, and (d) traditional roles of teacher and student (e.g., the teacher’s role was “Knowledgeable Coach,” whereas the students’ roles were identified as “Observers”). Billings and Fitzgerald (2002) concluded that Mrs. Tully was “a teacher in transition” (p. 932), whose facilitation of discussions included aspects of both dialogism and recitation. For example, although Mrs. Tully elaborated

on students' comments (an effective dialogic technique), she did not promote uptake by asking students to extend a previous participant's point.

"Kathy," the teacher in the Christoph and Nystrand (2001) study, who after 20 years of classroom experience, still described herself as a "teacher in transition" (p. 254), sought to incorporate "progressive" approaches into what she identified as her "traditional" practice. A key finding from this study indicated how the questions that Kathy posed shifted over the course of the year from "recitation prompts, reminder questions, implied answer questions, and guided prediction prompts" (p. 260) to authentic questions that did not have a pre-specified answer. Interestingly, the most dialogic discussion of the academic year occurred when Kathy posed an authentic question about a text that she had never taught before and allowed students to take control and engage each other in an open discussion. Christoph and Nystrand (2001) illustrated how Kathy and her students were able to succeed in dialogic discussions because of Kathy's ability to scaffold students' comprehension of the text and model interpretive practices while maintaining a classroom atmosphere in which students felt comfortable speaking and drawing on their own experiences outside of school to inform their literature learning.

The process toward dialogism involved taking risks and fostering relationships (Christoph & Nystrand, 2001). Kathy, after more than two decades of successful teaching, was able to re-conceptualize central aspects of her pedagogical philosophy in order to achieve a successful dialogic discussion. By effectively creating an environment of student engagement and respect, Kathy was able to convince her students to transition with her toward dialogism by making room in the discussion for students' interpersonal relationships:

[The teacher's] efforts to open dialogue in her classroom shows that dialogic discourse

can happen when teachers are adept at linking—and at enabling links between—academic objectives and student concerns and roles that often originate *beyond both the classroom and the school*. (Christoph & Nystrand, 2001, p. 279, emphasis added)

Based on this body of literature, it is clear that both students and teachers stand to benefit from both improved preparation for and consistent participation in dialogic discussions of literature by engaging in classroom activities that may indeed mediate students' literacy learning through discussion by drawing on, among other things, students' out-of-school literacies. These findings also suggest that teachers' transitioning from monologic into dialogic classroom discourse patterns can be facilitated with the help of a researcher who is able to point out otherwise unseen or unconscious classroom behaviors and encourage teacher reflection and metacognition (Anagnostopolous, Smith, & Nystrand, 2008).

2.1.6 Building dialogic classrooms for the future

Given the substantial body of literature that reveals multiple promising findings associated with students' participation in dialogic discussions, and the fact that such discussions occur only rarely in ELA classrooms in the United States, future attempts by researchers to promote this type of instructional approach must address this disconnect in practice. As I have illustrated in this chapter thus far, there are challenges that teachers and students face in implementing this literacy practice that may require both students and teachers to change the kinds of “moves” that they typically make in the classroom. The kinds of “moves” that are outlined in this chapter support dialogic interactions by promoting students' use of language and other semiotic tools as “thinking devices” (Lotman, 1988, p. 36) for students' interpretive literary practices. Thus, the

success of dialogic discussions depends on the extent to which students' classroom discourse and students' activities are dialectically connected.

Sociocultural scholars who have investigated the nature of mediation in classroom settings have highlighted how speaking changes thinking (Appel & Lantolf, 1994), as well as how participating in collaborative work changes thinking (Wertsch, 1991). For example, in dialogic discussions of literature, students work collaboratively to make meaning of a common text; students speak to know their own thoughts, which has the effect of changing the ways in which students are thinking. The end result of the group's collaborative work constitutes the group's negotiated meaning but also serves as a new text, or "thinking device" that students can draw on to produce new meanings through alternate semiotic means. The meaning making of academic concepts, in turn, informs how students make meaning of the everyday, out-of-school concepts that they bring with them into the classroom.

Multimodal activities that provoke students to engage in meaning making across sign systems may facilitate students' learning of academic concepts that are taught and learned primarily through the linguistic mode. This study examined the dialectical nature between speaking and collaborative academic work in two contexts that differed in terms of the tasks that a teacher had assigned to facilitate students' participation in dialogic discussions of texts. In the next section of this chapter, I consider how transmediation—the process of making meaning across sign systems—fits into a theoretical and practical reconceptualization of dialogic discussion in a secondary English context.

2.2 THEORETICAL PERSPECTIVES ON TRANSMEDIATION

The concept of transmediation has compelled leading scholars in the field of literacy education to conduct research studies that operationalize the concept as it has been used in classroom settings. These researchers have built on Vygotsky's (1986) sociocultural theory to suggest an approach to learning in which the process of transmediation functions as a central tenet, as in Suhor's (1984) proposal for a semiotics-based curriculum. Throughout the remainder of this chapter, I will discuss both the theoretical and practical implications of the enactment of this concept in English classroom settings by reviewing relevant and recent research on transmediation. I begin by identifying how the concepts of mediation and the dialectic process have characterized theory and research on transmediation. I follow this thematic review of the literature with a discussion of how this research has informed sociocultural considerations of learning in English classroom contexts; the focus in this section is specifically on how the notion of transmediation fits within Vygotsky's model of scientific concept development. I conclude this chapter by identifying how future literacy researchers who study the concept of transmediation can promote both the elaboration of the theory undergirding this concept as well as the promising classroom practices that engage students in academic literacy learning.

2.2.1 The nature of mediation

Lantolf and Thorne (2006) defined mediation as "the process through which humans deploy culturally constructed artifacts, concepts, and activities to regulate (i.e. gain voluntary control over and transform) the material world or their own and each other's social and mental activity"

(p. 79). Although language is not the only means through which humans mediate their thinking, it is the primary way through which thinking is realized.

For Vygotsky (1986), speaking mediated activity; that is, students spoke in order to act and to know their thoughts, not to display them (Brooks, Donato, & McGlone, 1997). Just as physical tools allowed human beings to complete activities with greater physical ease, symbolic tools, such as language, “are the means through which humans are able to organize and maintain control over the self and its mental, and even physical, activity” (Lantolf, 1994, p. 418). Once symbolic tools become integrated into mental activity, they require increasingly less explicit mediation:

Over time, children assume increased responsibility for organizing and deploying their own mental activity in tasks and, under normal circumstances, ultimately attain the ability to function independently of the other’s guidance. Thus, at the outset of ontogenesis, conscious mental activity is distributed and jointly constructed in the dialogic interactions that arise between children and representatives of the culture. As children participate in these collaborative interactions, they appropriate for themselves the patterns of planning, attending, thinking, remembering, etc. that the culture through its representatives values. Hence, what is at one point socially mediated mental processing evolves into self-mediated processing. (Lantolf, 1994, p. 419)

Ontogenesis, or the historical development of the individual, can be described in terms of the internalization of mediation from the social toward the individual and from the conscious toward the automatic appropriation of the tools of mediation (Vygotsky, 1986). This insight has important implications for this study. For instance, the “socially mediated mental processing” involved in discussions of literature may “evolve into self-mediated processing” if students have

the opportunity to engage in “collaborative” and “dialogic interactions” over an extended period of time. Describing this evolution, however, requires a more fully elaborated discussion of the nature of mediation.

Mediation has been theorized in the educational research literature in ways that make visible a potentially productive categorical tension. Kozulin (2003) distinguished between symbolic and human mediation, for example. The former concept included psychological (words) and cultural (material) tools, whereas the latter concept implicated the role of human beings (teachers and students) in facilitating the internalization of curricular content. Kozulin (2003) argued that past research in the sociocultural tradition has unnecessarily separated these types of mediation; symbolic and human mediators are interdependent, he contended, and required each other to shape learning contexts.

Daniels (2007) perceived the disconnect between human and symbolic mediation as a function of researchers too-narrowly designing the “social sites” of learning rather than the “content of the curriculum” (p. 327), a criticism shared by researchers of students’ out-of-school literacy practices (Hull & Schultz, 2001). Indeed, in order to understand how learning is embedded in the sociocultural and historical context of a classroom setting, it is necessary to understand the roles of both human and symbolic mediators (Adger, 2001; Ford & Forman, 2006; Hicks, 1996; Wertsch, 1991).

Kozulin’s (2003) call for the reintegration of the theoretical concepts of symbolic and human mediation in empirical sociocultural studies anticipated Wertsch’s (2007) distinction between explicit and implicit mediation. Wertsch (2007) identified explicit mediation as the deliberate introduction of material means of mediation, whereas implicit mediation referred to the ephemeral nature of spoken language to mediate learning in a classroom context. The tension

that Wertsch (2007) identified could be found between students' productive and less productive uses of both explicit (graphs, maps, diagrams, and so on) and implicit (vocabulary, concepts, words, and so on) mediators. However, tools are appropriated by users who make decisions about how to use the tool. Therefore, the usefulness of any given tool will depend on how the tool is interpreted by its user and any persons facilitating the use of the tool.

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

Vygotsky (1986) also anticipated inefficient attempts to "teach" scientific concepts such as the academic discourse inherent in the study of literary texts in English classrooms: "A teacher who tries to [teach scientific concepts directly] usually accomplishes nothing but empty verbalism, a parrot-like repetition of words by the child, simulating a knowledge of the corresponding concept but actually covering up a vacuum" (p. 150). Future research on the role of transmediation as a tool in promoting the development of scientific concepts must identify how teachers foster this particular type of learning in which transmediation can take place as well as the knowledge of the tools that would allow students and teachers to mediate and transmediate meanings so as to avoid the "empty verbalism" involved in the direct instruction of complex academic concepts.

In summary, mediation is a sociocultural concept that has been categorized in the research literature as symbolic or human (Kozulin, 2003), social or personal (Adger, 2001), and explicit or implicit (Wertsch, 2007). The concept of transmediation can serve to make these

productive tensions visible in the classroom as students struggle to interpret texts across sign systems, elaborating, enhancing, and developing the meanings that they have made from a given text. An analysis of the process of transmediation requires one to consider the relationship between explicit and implicit types of mediation, for example, as students recast meanings from one sign system (graph) into another (talk). By allowing students the opportunity to engage in the process of transmediation, the teacher may be able to identify how students are appropriating psychological and cultural tools in order to make meaning. Students who transmediate understandings expand the range of available meanings in one sign system into another sign system (Short, Harste, & Burke, 1996; Short & Kaufman, 2000).

The potential 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 mediation and transmediation results in a generative—as opposed to deficit—approach to literacy in which students use sign systems to engage in multiple ways of knowing (Albers, 2007; Berghoff et al., 2000; Burroughs & Smagorinsky, 2009).

In terms of dialogic discussion then, the amount of explicit mediation that students require to participate effectively in this collaborative interaction ought to decrease over time as students appropriate the tools that effectively mediate such interactions. Through discourse analyses of both students' interactions with other students and the teacher, and of students' appropriation of multimodal products and discussion as semiotic and mediating tools, the present

study seeks to contribute to a wave of sociocultural research that examines both human and symbolic mediators in terms of both how “people” and “things” mediate students’ learning in a particular sociocultural context.

2.2.2 Dialectic process

The theoretical literature on transmediation centralizes the importance of the dialectic process, or how “the learner’s thinking shapes the text under production and is simultaneously shaped by the process of producing the text” (Smagorinsky, 1995, p. 174). Although Smagorinsky (1995) was referring to writing, or more accurately, “composing” in the quotation above, the notion of text productions could be extended to include both stable and ephemeral products of transmediation such as drawings, dramatic plays, or discussions. In these cases, activities mediate speaking, which, in turn, mediates thinking.

Short and Kaufmann (2000) argued that classroom discussions have the potential to mediate meaning across sign systems. Since meaning potentials differ in each sign system (and must differ or else their existences would be redundant), transmediation represents a potentially generative process by which students create new meanings (Siegel, 1995). Youngquist and Pataray-Ching (2004) conducted a case study, for example, in which they identified how one 4-year-old student was able to articulate meanings about the concept of space in one sign system, which were not available in alternate sign systems. In transmediating his impressions and expressions of space from a drama activity to building block constructions to drawings to blueprints, the focal student transformed his understanding with each new transmediation, adding elements not represented in previous expressions. One interesting finding from this study was the fact that this student initially preferred to use one sign system, but was able to use more sign

systems, and negotiate meanings across sign systems with greater ease over time. In a sense, then, this student's meaning making was a combined result of his use of all of the various sign systems in which he engaged. Thus, engaging in the dialectic processes involved in transmediation extended the potential world of interpretations that were available to this particular student.

Similarly, functional dualism, a term coined by Lotman (1988), refers to the dialogic and generative functions of texts. In this conception, texts respond to previous utterances while anticipating future utterances (Bakhtin, 1981). One can readily see the resemblance between the dialectic process and functional dualism as concepts that have been used to describe transmediation: translating content from one sign system into another simultaneously transforms one's understanding of the original content and recasts that content to create new understandings. Wertsch and Toma (1995) argued that texts that are treated within this conceptual view are used as thinking devices and not as static entities out of which information is transmitted from sender to receiver as in the traditional model of communication often espoused both implicitly and explicitly by educators across disciplines, and evidenced by I-R-E patterns of classroom discourse (Cazden, 1988; Scott, Mortimer, & Aguiar, 2006).

Although the list of theoretical constructs through which transmediation has been examined could be extended, I have highlighted two of the most relevant themes—the nature of mediation and the dialectic process—as these constructs have been used to explain the powerful semiotic work engaged in by students in various literacy classrooms. In the next section, I identify broad themes that have emerged from practice-oriented research on the concept of transmediation.

2.3 PERSPECTIVES ON TRANSMEDIATION IN PRACTICE

Research on the use of transmediation in literacy classroom settings has revealed promising findings for educators who espouse sociocultural beliefs about teaching and learning. In fact, some researchers in the field have *equated* transmediation with literacy (Albers, 2006; Berghoff et al., 2000; Cowan & Albers, 2006). Redefining literacy as the ability to transform meaning across sign systems opens up both theoretical and practical opportunities, the details of which need to be articulated in future research. In this section, I examine the existing research findings on transmediation in light of their promise to promote both in-school and out-of-school literacy practices.

Students engaging in processes of transmediation in literacy classrooms have demonstrated improved inference-making abilities (Clyde, 2003), improved memory of plot structures (Cowan & Albers, 2006), and improved reading comprehension and use of language and literary conventions during Book Club discussions (McMahon & Goatley, 1995). Although these studies took place in primary-grade classrooms, the positive findings would be appreciated in all English classrooms in which texts are used as thinking devices, or what Vygotsky (1986) called “instrument[s] of thought” (p. 31). Indeed, Kress (1997) asserted that the literacy resources of many students could be productively used to leverage these students’ learning of more conventional linguistic literacy skills if educators valued the multimodal nature of all signs equally.

2.3.1 Connecting in-school and out-of-school literacy practices

In addition to promoting students' facility with reading, writing, and speaking practices in literacy classrooms, scholars investigating the translation of meanings across sign systems have identified the potential of this process to (a) connect in-school with out-of-school literacy practices (Hicks, 1996; Hull & Schultz, 2001), (b) develop metacognitive awareness (Clyde, 2003; Rowe, 1998), and (c) establish an inquiry-based classroom culture (Albers, 2006; Berghoff et al., 2000).

In his semiotic model for a curriculum based on transmediation, Suhor (1984) identified the linguistic sign system, which includes the four traditional literacy skills of listening, speaking, reading, and writing conventionally valued in English language arts classrooms, as only one of many alternate sign systems (gestural, pictorial, musical, constructive, and so on) from which students can draw to make meaning, and thus, learn. In expanding the meaning-making possibilities for students with diverse academic abilities, students are able to bring not only spontaneous, or everyday concepts, but also spontaneous semiotic tools, such as music, painting, and dance, to leverage their learning of scientific (academic) concepts and scientific (linguistic) sign systems.

Recent scholarship that has investigated the nature of students' out-of-school literacies has highlighted the multimodality of these literacies (Hull & Schultz, 2001). Drawing on previous data collected by Gutiérrez and her colleagues (Gutiérrez, Baquedano-López, Alvarez, & Chiu, 1999), Hull and Schultz (2001) illustrated how a computer game mediated students' school- and home-based linguistic literacies in an after school program. Students corresponded with "El Maga," to which students emailed their concerns and successes during their videogame play. Gutiérrez et al. (1999) documented how one student demonstrated increasingly complex

literacy knowledge and skills as she codeswitched between Spanish and English literacies, languages, and cultures. The authors argued that the creation of such hybrid literacy practices is critical for all students to achieve in academic settings.

Schultz's (2002) case study of "Denise" documented one high school student's use of dramatic performance to narrate her life's experiences, which she wrote at home, even though she displayed oppositional behavior in school and refused to write in academic settings. Denise's teachers successfully, and after much work, identified a multimodal tool that Denise used to mediate her academic literacy practice. Schultz (2002) found that Denise, and many of her classmates created literate identities by writing at home, but resisted such an identity in the classroom because of the social consequences that this identity assumed in the urban high school context of Schultz's study. Although this research provides evidence for the use of out-of-school literacies to leverage in-school literacies, the findings also remind us that social aspects of learning are deeply intertwined with what, whether, and how learning is accomplished.

In her study of first-grade students' literacy learning, Hicks (1996) used "multilayered forms of interpretive analysis" (p. 106) to unveil students' emergent responses to literature, while simultaneously studying how these students' responses developed over time. Students in this study engaged in writing journal entries, the production of which was mediated by classroom talk, drawings, and gestures. Hicks (1996) documented one student's simultaneous use of talk and drawing to construct his response that created a journal writing entry about the "Teenage Mutant Ninja Turtles." Through microethnographic analysis, the author presented evidence for the influence of these tools of mediation in the production of the journal writings. Furthermore, she suggested that students do not merely "copy" the external social world and the discourses that influence those worlds in their writing, but, rather, take ownership over and transform the

discursive activity itself. The research discussed in this chapter supports perspectives on education that conceptualize learning as a “dialogic, transformative, and emergent process” (Hicks, 1996, p. 123) that is interdependent on both students’ in-school and out-of-school literacies.

In this section, I have surveyed studies that leveraged students’ out-of-school and multimodal literacies to enhance academic literacy learning in diverse classroom contexts. The analytic focus of those studies was on the nature of the relationship between out-of-school and academic literacy practices. The specific learning processes that students used to connect these literacies, however, has been underexamined in the literature. By focusing more closely on these processes in this study, I hope to contribute to understanding how transmediation may bridge out-of-school and academic literacy practices.

2.3.2 Developing metacognitive awareness

In addition to bridging students’ academic and out-of-school literacy practices, transmediation has been linked in practice with students’ improved metacognitive awareness. Teachers and researchers alike have sought to understand how students develop the ability to think about their own thinking and have realized how such an awareness may support students’ learning for quite some time (Flavell, 1979). The disposition to be metacognitive has been characterized as the “tendency to be aware of and monitor the flow of one’s own thinking; alertness to complex thinking situations; [and] the ability to exercise control of mental processes and to be reflective” (Tishman, Jay, & Perkins, 1993, p. 148). The particular power of transmediation lies, arguably, in this ability to encourage students to think about their learning in new and creative ways.

Rowe (1998), for example, found that students who transmediated their textual understanding through dramatic play activities were able to reflect on and reorganize their knowledge rather than merely understand information. As Rowe explained, “Children were different readers after play and different players after reading” (p. 30). Thus, students in Rowe’s (1998) study drew on metacognitive processes as they shifted their stances in regard to their understanding of a literary text.

In her study of 2nd-grade students’ use of the Subtext Strategy, Clyde (2003) challenged learners to consider what characters in stories (or figures in paintings for that matter) might be thinking—even though this may not match the words attributed to the character in the text. Using process drama activities that asked students to act out their understandings of a story, Clyde illustrated the generative power of transmediation. Clyde (2003) asked, “What would happen if subtext, the thoughts behind the action, were strategically integrated into the story experience? How might it affect understanding?” (p. 152). Second-grade students’ talk and work with this strategy evidenced how engaging in activities that promoted transmediation helped these students to make clear connections between the text and their lives, empathize with characters, improve their ability to make text-based inferences, and value multiple perspectives in more sophisticated ways. These findings support the potential of transmediation to promote students’ metacognitive awareness, which researchers in education have connected to students’ improved literacy performance (Flower & Hayes, 1981; Graham & Perin, 2007; Raphael, Englert, & Kirschner, 1989) and deeper understanding of subject matter content (Chi, de Leeuw, Chiu, & LaVancher, 1994).

2.3.3 Establishing an inquiry-based classroom

While the previous two perspectives on transmediation in practice dealt primarily with what students bring with them to the classroom (connecting academic and out-of-school literacy practices) and what students take away with them from the classroom (developing metacognitive awareness), this last perspective highlights the role of transmediation as it shapes what students actually do in the classroom. Transmediation promotes a cycle of inquiry with limitless potential to expand students' meaning making (Berghoff et al., 2000). Berghoff et al. (2000) proposed an inquiry cycle to guide ELA instruction in which meanings are introduced, transmediated, and recycled during discussions of literary texts. The inquiry-driven classroom atmospheres that have been described in the literature on transmediation emphasized the pedagogical power of this particular orientation toward lifelong learning as these studies are set in preschool (Rowe, 1998; Youngquist & Pataray-Ching, 2004), elementary school classrooms (Clyde, 2003; Cowan & Albers, 2006; McMahon & Goatley, 1995; Vincent, 2007; Whitin, 2005), secondary contexts (Smagorinsky & O'Donnell-Allen, 1998) as well as graduate school environments (Albers, 2006, 2007).

Albers (2006) situated transmediation as a fundamental orientation toward ELA instruction and learning. The author proposed a curricular framework in which transmediation stands as the central pedagogical principle. Indeed, Albers (2006) argued that “meaning is not located within any one mode, but in how the modes are interpreted in relation to each other” (p. 77). The author illustrated the central tenets of a curriculum designed around transmediation by describing her experiences—and analyzing the artifacts that resulted from those experiences—instructing preservice teachers.

Albers (2006) drew on scholarship on reader response (Rosenblatt, 1996) and multimodalities (Kress, 1997; Kress & van Leeuwen, 2001) to present a model of curriculum design in which the following components were expressed: (a) initiating engagements, (b) demonstrations, (c) text study/literature study, (d) invitations to inquiry, (e) opportunities for organizing and sharing, and (f) reflective action. The influential role of transmediation can be found throughout each of these components. For example, Albers (2006) “initiated engagement” in a unit on the Harlem Renaissance with a “gallery walk” through stations that represented figures from the time period, and a newsletter that students collectively read. This sequence of events followed a self-running PowerPoint presentation in which music played, and images from the Harlem Renaissance were displayed. At the conclusion of the experience, Albers (2006) asked her preservice teachers, “How do different modes enable us to understand aspects of the Harlem Renaissance that one mode may not afford?” (p. 86). Albers demonstrated how this lesson fit within a larger unit that was nested within a particular inquiry-driven curricular framework that would be uncommonly found in most schools across the United States.

In the next section of this chapter, I describe how the process of transmediation—which has been shown to connect out-of-school with academic literacy practices, promote metacognitive awareness, and facilitate inquiry-based classroom environments—fits within Vygotsky’s model of scientific concept development.

2.4 TRANSMEDIATION'S CONTRIBUTION TO VYGOTSKY'S SOCIOCULTURAL THEORY

Vygotsky's (1986) model of spontaneous and scientific concept development has played a significant role in shaping how sociocultural researchers have thought about teaching and learning in literacy contexts. Recently, scholars have used this model to suggest alternative instructional philosophies in which the purposes of schooling are reconceptualized. Prospective approaches (Kozulin, 1998) to education and theoretical (Karpov, 2003), as opposed to empirical, or "discovery" approaches to learning promote the type of learning that transmediation fosters and echo Dewey's call to make education "more about acquiring a disposition toward learning and inquiry, rather than acquiring a set of skills 'completed in odd moments'" (cited in Cowan & Albers, 2006, p. 135).

Vygotsky (1986) articulated how students can draw on their spontaneous, or everyday concepts learned from experience to inform their understanding of scientific, or academic concepts such as students are expected to learn in formal school settings. Vygotsky (1986) asserted, contrary to some traditional practices in literacy classrooms, that scientific concepts cannot be taught directly; rather, symbolic and human tools mediate students' learning of scientific concepts. A brief overview of the nature of scientific concepts will illustrate how transmediation operates within Vygotsky's sociocultural theory.

2.4.1 Scientific and spontaneous concepts

Scientific concepts are difficult for students to learn because scientific concepts are detached from reality, excessively abstract, and cannot be directly taught. Vygotsky (1986) juxtaposed the

spontaneous concept of “brother,” for example, with the scientific concept of “exploitation” to demonstrate how differently these ideas may be experienced and learned (p. 192). In order to use scientific concepts, students must utilize logical memory, be able to differentiate, attend deliberately to, and abstract information. Students who have internalized a scientific concept use the concept consciously and logically, and their use of the scientific concept is characterized by systematicity and decontextualization (Vygotsky, 1986).

Kozulin (1998) conceptualized the Zone of Proximal Development (ZPD), or the “distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (Vygotsky, 1978, p. 86), as the meeting place of spontaneous and scientific concepts. Mediated instruction in the ZPD leads to the conscious control and awareness of one’s own thinking. Vygotsky described the mutually influential nature of the relationship between spontaneous and scientific concepts:

In working its slow way upward, an everyday concept clears a path for the scientific concept and its downward development. . . .Scientific concepts, in turn, supply structures for the upward development of the child’s spontaneous concepts toward consciousness and deliberate use. Scientific concepts grow downward through spontaneous concepts; spontaneous concepts grow upward through scientific concepts. (Vygotsky, 1986, p. 194)

Thus, spontaneous concepts inform scientific concepts; scientific concepts inform spontaneous concepts. During this process, conceptual transformation is unavoidable since the introduction of a spontaneous concept to a scientific concept (and vice versa) alters the nature of the original concept. It is at this point that the role of transmediation in the process may be revealed. The

relationship between spontaneous and scientific concepts parallels, in important ways, the dialectic process involved in transmediation (Smagorinsky, 1995).

After undergoing symbolic and human mediation in the ZPD, scientific concepts transform the nature of spontaneous concepts while spontaneous concepts transform the nature of scientific concepts. The transformed concept, consciously used and under deliberate control by the student, does not necessarily align with the conventional meanings of a concept in a given cultural and historical context, however; students' understandings may not be complete understandings at this point. Engaging in processes that involve transmediation require students to recognize how their meanings align with others' and the discipline's valued ways of meaning, and to ultimately use the mediated concept to generate other meanings that inform a deeper understanding of the concept.

2.5 TRANSMEDIATION'S CONTRIBUTION TO PRACTICE IN ENGLISH EDUCATION

The concept of transmediation offers a unique contribution to practice in English classrooms by providing a novel perspective on how students can learn through discussions of literary texts. Engaging in processes of transmediation extends the interpretive potential of texts by (a) expanding the domain of meaning to be made from texts, (b) enhancing students' ownership over their own interpretations, (c) deepening students' empirical understanding of literary texts (the "content" of scientific concepts), and (d) promoting theoretical learning by understanding how knowledge is constructed in the discipline (the "structure" of scientific concepts).

By increasing the number of sign systems to which students have meaning-making access, transmediation leads 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 internalized 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 that can be analyzed and interpreted by drawing on multiple literacy practices that originate in both school and out-of-school settings.

This is the type of instruction called for by sociocultural theorists who characterize cognitively mature discourse by its intertextual and decontextualized nature (Kozulin, 1998). Daniels (2007) argued that instruction that “leads development,” to use Vygotsky’s language, ought to facilitate the conscious control of the content and structure of scientific concepts in order to allow students the opportunity to author their own ideas. Transmediation, therefore, promotes what Karpov (2003) called theoretical learning. In distinguishing theoretical from empirical, or “discovery” learning Karpov (2003) emphasized the importance of teaching students scientific concepts by teaching students the methods of scientific analysis:

Each of these methods is aimed at selecting the essential characteristics of objects or events of a certain class and presenting these characteristics in the form of symbolic and graphic models. . . .The methods then serve as cognitive tools that mediate the students' further problem solving. (p. 71)

From Karpov's (2003) perspective, this dissertation study examines how students appropriate the methods of literature learning in order to mediate "students' further problem solving" through dialogic discussions.

2.6 CHALLENGES TO RESEARCHERS

Sociocultural researchers—especially in the field of English education—have focused too narrowly on how particular types of talk are consequential to the development of the “social site” of the classroom (Daniels, 2007) without also including analyses of how such classroom discourse is consequential to students' learning of theoretical knowledge that would allow students to participate authentically in the larger conversations and methods of the discipline (Applebee, 1996; Burroughs & Smagorinsky, 2009; Karpov, 2003). Hicks's (1996), methodological framework in which “multilayered forms of interpretive analysis, involving studies of completed texts (both oral and written) as well as emergent discourse and social activity” (p. 106) stands out as one such study that addressed both how and what students learned by analyzing students' talk as they learned through collaborative activities in their classroom. By combining the interests inherent in studies of the processes and outcomes of student learning through classroom discourse in various modes, researchers and educators could address how dialogic classroom discussions are mediated and how dialogic classroom discussions mediate students' literacy learning. The present study builds on the promising findings from the empirical research literature on text-based classroom discussions to examine the different ways in which the theoretical constructs of semiotic mediation and transmediation may be leveraged to promote students' interpretations and dialogic discussions of literary texts.

2.7 SUMMARY OF RESEARCH AND THEORETICAL OVERVIEW

In this chapter, I have reviewed the relevant findings from the empirical research literature on dialogic discussions and the learning outcomes associated with these discussions, situated the concept of transmediation within a sociocultural approach to learning literature by identifying the ways in which engaging in this process facilitated students' in-school and out-of-school literacy practices, and warranted further investigation of the specific processes in which students and teachers engaged in order to take advantage of the learning opportunities that dialogic discussions provide. In the next chapter, I outline the design of this dissertation study that utilized observational, multimodal, and discourse analytic methods to trace the consequences of students' participation in activities that—I have argued—may facilitate dialogic discussions of literary texts, and consequently enhance students' literature and literacy learning.

3.0 CHAPTER III: METHODOLOGY

3.1 OVERVIEW OF PROCEDURES

To provide a “thick description” (Geertz, 1973) of the learning opportunities that a multimodally-mediated dialogic discussion affords, I collaborated with one secondary English teacher and compared the academic performance of students who had prepared for dialogic discussions through collaborative unimodal and collaborative multimodal means. Data collection for this semester-long dissertation study began in August of 2009 and ended in January of 2010. I collected data in two separate 12th-grade English classes taught by the same secondary English teacher. To establish a sense of students’ typical participation in literary discussions, I observed and wrote field notes for two whole class literary discussions, and digitally recorded one whole class discussion of literature during the first four weeks of the semester.

Because of the important role of the teacher in facilitating dialogic discussions as revealed in the previous chapter, I worked with a teacher whom I have already observed facilitating effective inquiry-based discussions of literature. The teacher had also completed a graduate-level course devoted entirely to discussion-based instruction in the ELA classroom, and graduated from a teacher education program in which inquiry-based instruction and engaging students in multiple perspectives were core components of the curriculum.

During the second half of the semester, I worked closely with the secondary English teacher to plan, implement, and assess three multimodally-mediated dialogic discussion cycles. Each cycle consisted of either a multimodal or unimodal activity followed by a whole class discussion of one piece of literature. I collaborated with the teacher through meetings before the implementation of each instructional cycle and debriefed with the teacher in post-implementation meetings. Before the beginning of the first instructional cycle, and to prepare the teacher to lead dialogic discussions, the teacher and I read and discussed an illustrative book chapter on this approach to ELA instruction (Chapter One of *Opening Dialogue*, Nystrand, 1997) and reviewed the coding scheme (Appendix A) of dialogic moves that characterized students' and teachers' participation during such discussions.

Throughout the semester, the teacher and I met for planning sessions in which we (a) designed and articulated the learning objectives for the multimodal and unimodal projects in which students collaborated, (b) co-constructed interpretive questions to facilitate dialogic literary discussions, and (c) identified what would constitute effective multimodal projects or unimodal responses, and successful dialogic discussion for the text by developing scoring rubrics that the teacher used to assess students' performance during small group project activities and whole class discussions of literature.

After completion of the first instructional cycle, the teacher and I met to discuss emergent findings from the study, reevaluate our procedures for implementation, and troubleshoot problems that emerged during data collection and preliminary analysis. One such problem was the lack of interaction that we noticed among some students during small group work in the unimodal condition. We addressed this issue by creating a more engaging unimodal prompt that would require students' collaboration in more obvious ways. This particular iterative approach to

data collection and reflective pedagogical practice required me to consider both how students' and the teacher's goals were or were not accomplished through classroom discourse. Studying the teacher's instructional goals and the means by which the teacher planned on achieving those goals before, during, and after implementation provided a rich source of data for this study. The teacher and I repeated this pattern of planning and debriefing for each of the three instructional cycles.

Prior to each of the whole class discussions during the second half of the semester, students in one section of the course engaged in unimodal activities while students in the other section of the course engaged in multimodal activities, both in the context of small groups. This design element allowed me to examine the nature of both student-led discourse in small groups as well as teacher-led discourse during whole class literary discussions.

During the implementation of these three instructional cycles, I compared two different class sections in which students engaged in small group discussions as they completed (a) three unimodal activities prior to engaging in three whole class discussions, or (b) three multimodal activities prior to engaging in three whole class discussions. These activities were designed with the teacher in this study and drew from students' interests and skills as indicated on the Student Background Survey as well as the existing research literature on unimodal and multimodal instructional activities (e.g., Kress, 1997, Smagorinsky & O'Donnell-Allen, 1998, Whiting, 2005; Zoss, Smagorinsky, & O'Donnell-Allen, 2007). To control for students' prior skill and experience with various multimodalities, the teacher and I switched the instructional conditions during the third cycle of this study. Students who had completed multimodal collaborative tasks during cycles 1 and 2 completed a unimodal collaborative task during cycle 3. Likewise, students who had completed unimodal tasks during the first two instructional cycles completed a

multimodal collaborative task during cycle 3. This design choice allowed me to isolate multimodality as a construct from the repertoire of familiar literacy practices that these students participated in frequently and consistently.

The effectiveness of small group collaborative work depends on, among other things, students' autonomy in determining how they will approach and accomplish a given task and students' production of new knowledge through discussion of open-ended questions (Nystrand et al., 1993). Nystrand et al. (1993) found that small group work negatively related to students' literacy achievement when the group work could have been done individually as "seatwork." Furthermore, upon closer inspection of the classroom discourse data, these researchers found that "collaborative seatwork reduces achievement, but group work in which students actively construct interpretations promotes achievement" (Nystrand et al., 1993, p. 20). To that end, small group work in both conditions was designed to encourage student choice and facilitate interpretive reasoning.

During unimodal classroom activities, for example, students worked through a series of interpretive questions about a text, responded to and negotiated answers to the questions, and wrote their responses on a handout. During multimodal classroom activities, on the other hand, students also responded to a series of interpretive questions through small group deliberation of responses. In this case, however, students responded to the questions by engaging in an activity that required them to use a nonverbal mode, such as a film, painting, sculpture, or musical piece. Directions for the collaborative work in both multimodal and unimodal conditions asked students to (a) engage in conversation with group members about the task, (b) use the text as a resource for completing the task, and (c) interpret possible meanings based on all group members' understandings of the text. Students had approximately 60 minutes to plan their projects and

construct their responses.

Finally, I devised an interview protocol and conducted end-of-semester exit interviews with three focal students in each classroom condition. Focal students, selected based on their responses to the Student Background Survey, represented a diverse range of experiences as consumers and producers of multimodal texts. Focal students were reminded of their freedom to discontinue the interview at any point, if they would so choose, in accordance with the letter of consent that their parents or legal guardians signed earlier in the semester. After observing and interacting with the class over the course of an entire semester, focal students were relatively comfortable speaking with me. Nevertheless, I opened the interview with unstructured warm-up questions that would allow students the opportunity to voice any concerns they might have about participating in the interview. I also provided students with gift cards to a local bookstore as a token of my appreciation for their time in the interview. Beginning the interview in “a state of egalitarian cooperation” (Eder & Fingerson, 2002, p. 184) created the most effective environment for focal students and the researcher to engage in meaningful conversation.

These interviews sought to provide students with an opportunity to demonstrate their understanding of one of the texts that they have read, worked with either unimodally or multimodally, and discussed in class. Of course, as Appel and Lantolf (1994) demonstrated, asking students to recall information from a text may, indeed, enhance the comprehension that researchers and teachers often seek to assess. Because of the sociocultural lens that this study takes, I expect that students in both unimodally- and multimodally-mediated conditions would enhance their comprehension of the text during their interviews with me. It is at this point that a comparison between the two conditions will be especially useful.

The goals of this study warranted the collection of interview data because this method

allows the researcher the opportunity to engage individual thinking that has its origins in social interaction (Vygotsky, 1986). Interviews also allow researchers to deal with the fact that students take away different ideas from the same classroom activity, just as no two readings of the same text would result in the exact same interpretations. Such data allowed me to examine how particular students' histories of participation in social classroom activities were consequential to students' interview responses.

All audiotaped small group conversations, videotaped focal group conversations, videotaped whole class discussions, and interviews were transcribed using the conventions provided in Appendix E. As the process of transcription reflects the theory and analysis that guided this investigation (Mishler, 1991; Ochs, 1979), it was important for me to represent all of the ways in which students made meanings during their discussion. Therefore, my discussion transcripts re-presented students' meaning making through linguistic patterns of inflection, negotiation, and turn-taking (McCarthy, 1994), and also through other semiotic systems such as the proximity of group members, students' facial expressions, and other ways in which the students "embody space" (Leander & Rowe, 2006).

3.2 PARTICIPANTS

Since I was interested in investigating the nature of learning using interpretive discussions and multimodal activities—two activities that do not occur frequently in many classrooms (Applebee et al., 2003; Nystrand, 1997; Nystrand et al., 2003; Zoss, 2009), I selectively sampled (Patton, 1990; Sipe, 2000) to identify a teacher who valued multimodal project work and used discussion-based instructional methods. In order to encourage a wider use of these promising strategies it is

necessary to illustrate how these classroom activities result in students' learning of disciplinary-based knowledge and skills (Zoss, 2009), especially in an instructional atmosphere informed by high-stakes assessments of student learning (Hamilton, 2003; Shepard, 2000). The teacher and I identified two sections of one course that would be the most likely to substantively engage (Nystrand & Gamoran, 1991) in both small group projects and classroom discussions in order to more closely study the processes that informed students' learning through dialogic discussion.

Students in both class sections completed the Student Background Survey, small group unimodal or multimodal project work, and engaged in whole class discussions of three literary texts. Small groups in each condition were configured according to their responses on the Student Background Survey. Students who claimed to practice the greatest number of multimodal literacies were identified as "experts." Students who indicated the fewest number of multimodal literacy practices were identified as "novices." Students who engaged in a range of multimodal literacy practices between "novice" and "expert" ratings were classified as "intermediate" for their multimodal literacy engagement. Each small group, then, was composed of at least one "expert," one "novice," and one student rated for an "intermediate" level of exposure to multimodal activities.

One small group in each period was chosen randomly to function as the focal group for this study. In both cases, the focal group consisted of three persons who were rated "expert," "intermediate," and "novice" according to their responses on their background surveys (Appendix D). To promote potentially diverse perspectives, none of the focal groups consisted of solely boys or girls. All students had to have signed the consent form. One adjustment was made to the composition of the focal group in Period 3 since Mr. Smith informed me that Yasmine, who was originally selected to work with Nick and Louise, did not regularly attend classes. To

replace Yasmine, I added Leonard. Although this changed the composition in the group from two girls and one boy to two boys and one girl, Leonard had the same multimodal literacy rating as Yasmine, had also signed a consent form, and attended class meetings regularly. Focal students also engaged in interviews at the end of the semester. I attempted to establish reflexivity with the focal students in this study by demonstrating an authentic interest in how they experienced teaching and learning in their particular contexts, establishing “conversational partnerships” (Rubin & Rubin, 2005, p. 83) with students during interviews, and member checking to confirm a valid representation of focal students’ voices.

3.2.1 Focal students: Period 2

Natalie, Elizabeth, and Mike comprised the focal group in Period 2. This group engaged in two cycles of unimodal collaborative work and one cycle of multimodal collaborative work (cycle 3) prior to whole class discussions of *Macbeth*, *The Natural*, and *The Princess Bride*, respectively.

Natalie (“novice”) responded on the Student Background Survey that the purpose of discussion was “to hear other points of view.” This was a minority perspective among her peers in the class who overwhelmingly identified “reading comprehension” as the purpose of discussion. When asked to describe how she normally participated in classroom discussions of literature, Natalie responded that she usually offered her opinion on the topic even if it happened to be “off base.”

Elizabeth’s (“intermediate”) responses to the discussion-based survey questions indicated a focus on the importance of literary analysis. She identified the purpose of discussions as “To further understand the reading and analyze how/why characters do what they do.”

Finally, Mike (“expert”), on the other hand, indicated the purpose of discussion as “to help us better understand what we are reading so we know its [sic] not for no reason.” He indicated in his other responses that he found discussion and reading “boring.” Table 2 provides an overview of the ways in which all students responded to the question, “How do you typically participate during literature discussions?”

Table 2. Survey Responses to “How do you typically participate during literature discussions?”

Participation Types	Period 2 (#)	Period 2 (%)	Period 3 (#)	Period 3 (%)
Active	4	23.5	1	6.7
Active-Positive	1	5.9	6	40.0
Active-Negative	1	5.9	2	13.3
Passive	2	11.8	2	13.3
Passive-Positive	1	5.9	0	0.0
Passive-Negative	1	5.9	0	0.0
Listen, Think, Speak	4	23.5	1	6.7
Listen, Think, Speak, Relate	0	0.0	1	6.7
No Response	3	17.6	2	13.3

3.2.2 Focal students: Period 3

Nick (“novice”), Leonard (“intermediate”), and Louise (“expert”) comprised the focal group for Period 3, which engaged in two cycles of multimodal collaborative project work and, in cycle 3, engaged in a collaborative unimodal task prior to whole class discussions of *Macbeth*, *The Natural*, and *The Princess Bride*.

Nick’s responses to discussion-based survey questions indicated a focus on understanding the topic of discussion. The primary ways that Nick characterized his participation in discussion was through “answering and asking questions on the topic” to promote reading comprehension. This traditional stance toward discussion was not uncommon among his classmates (see Table 3).

Table 3. Survey Responses to “What do you think is the purpose of literature discussions?”

Discussion Purpose	Period 2 (#)	Period 2 (%)	Period 3 (#)	Period 3 (%)
Reading Comprehension	14	82.4	12	80.0
Explore Multiple Perspectives	2	11.8	2	13.3
Apply Literature to Life	0	0.0	1	6.7
No Response	1	5.9	0	0.0

Leonard provided equally unique responses in regard to the purposes of literature discussions and the ways in which he would describe his participation in such discussions. The purpose of discussion, Leonard noted, was “To help everyone understand the meanings of literature; when more than one person discusses something it gives more than one point-of-view.” This acknowledgement of the value of multiple perspectives was not common among his classmates (see Table 2). His characterization of his active participation in discussion was equally rare: “I give my 100% attention. I don't mess around; instead I give facts and help others learn. I always try to help someone who does not fully understand something.” Interestingly, this is the only response among all students in both periods that recognized the *teaching* potential involved in students' participation in discussion.

Finally, Louise was the only student across both periods who not only identified the ways in which discussion can improve comprehension, but also characterized the purposes of discussion in terms of its ability to connect ideas in the text with “real life”: “To understand, find a deeper meaning, and apply it to real life.” Louise also identified the importance of classroom culture in determining how successful a discussion can be. “It really depends on the group,” was Louise's response when asked to comment about the kinds of discussions in which she engaged in the past. These focal students, therefore, like all students, represented both shared and singular experiences and perspectives on schooling, learning, and literature.

3.3 DATA SOURCES

3.3.1 Field notes

During my observations of both unimodal and multimodal classroom conditions, I completed jottings and field notes, or “accounts *describing* experiences and observations the researcher has made while participating in an intense and involved manner” (Emerson et al., 1995, pp. 4-5, emphasis in original). As with any research that claims to take a perspective in which multiple rather than one singular truth can be revealed in a given setting, I do not purport to offer an objective record of classroom events. In fact, I acknowledged and anticipated that my own history and experience would color and inform both how I made sense of classroom events as well as how I recorded those events in the form of field notes, which I subjected to additional interpretive analyses as I translated jottings into analytic field notes and research memos (Emerson et al., 1995). In an important way, my field notes functioned as the very first interpretive acts in which I engaged during this project. As such, my field notes more closely represented my personal account of classroom life rather than an objective record of daily events.

After each observation, I drew from my jottings to write detailed and analytic field notes that focused particularly on the ways in which students and teachers used language and other semiotic tools during class to create meaning. These field notes functioned as a secondary data source that I used to support and contradict interpretations of classroom events that had been culled from other data sources during the study.

3.3.2 Student background surveys

Thirty-two students (17 students in Period 2 and 15 students in Period 3) completed surveys at the beginning of the semester. The first part of the survey asked students to respond to open-ended questions about their experiences as discussion participants and included questions about the purpose of text-based discussions and how such discussions could be described. Student responses in both Periods 2 and 3 were similar in terms of how students conceptualized discussion. Fourteen out of 15 student responses about the purpose of discussion in Period 2, for example, were categorized as “improve reading comprehension,” while 12 out of 17 students in Period 3 described the purpose of discussion in the same way. Other student responses were categorized as “explore multiple perspectives” and “apply literature to life” (see Table 3).

The second part of this survey was used to identify students’ multiple and multimodal literacy practices for the purposes of grouping students with diverse skills in each small group during their unimodal or multimodal project work. By composing groups of students with diverse multimodal literacy practices, Mr. Smith and I promoted potentially powerful learning opportunities in which students could engage in dialogic talk that could facilitate other students’ learning.

The most common multimodal literacy practices that students identified were the following: Using Facebook (87.5%), instant messaging (84.4%), text messaging (90.6%), burning cds (75%), and drawing, painting or sketching (75%). Common multimodal literacy practices included creating a YouTube! Video (43.8%), creating sculptures (43.8%), and composing or performing music (34.4%). The least common multimodal literacy practices in which students in Periods 2 and 3 engaged were creating a webpage (21.9%), communicating

using sign language (9.4%), and designing a “Second Life” character (21.9%). Students were provided with space to indicate any additional multimodal practices in which they participated.

The total number of multimodal literacy practices that students identified were tallied and three categories of multimodal experience emerged: (a) expert (8 or more identified multimodal literacy practices), (b) intermediate (6-7 identified multimodal literacy practices), and (c) novice (0-5 identified multimodal literacy practices). To create the small groups for this project, three piles of surveys were made that corresponded to the expert, intermediate, and novice categories. One survey from each pile was chosen randomly and each group of three persons comprised the small group that worked together for the purposes of this research project.

3.3.3 Planning and debriefing sessions

All planning and debriefing sessions with the secondary English teacher were audiotaped and transcribed. I kept a record of all of the plans that were generated from these meetings. Data from these sessions were used as a means of triangulation throughout my analyses during this study.

3.3.4 Multimodal and unimodal small group discussions

Audiotaped and transcribed small group multimodal and unimodal collaborative activities allowed me to consider the extent to which students semiotically mediated their discussions and the extent to which transmediation characterized students’ multimodal project constructions. These small group discussions, situated between my analyses of baseline instructional practices and whole class discussions of literature, provided a necessary link in this study of how students’

discussion practices were mediated by various classroom activities as well as how these small group discussions developed over three instructional cycles.

3.3.5 Multimodal and unimodal projects

Multimodal and unimodal small group collaborative projects were devised so that students were addressing essentially the same questions about the text under study. For example, if the task required students to analyze a character's particular motivations in a novel, both multimodal and unimodal small group activity instructions reflected this instructional goal. These classroom artifacts were collected, recorded (either photocopied or digitally captured) and analyzed as a source of data that demonstrated how students mediated their understanding of three literary texts.

3.3.6 Whole class discussions

Three whole class dialogic discussions in each instructional condition were videotaped and transcribed. Therefore, six whole class discussions plus two baseline discussions that occurred during the first four weeks of the semester comprised the total number of whole class discussions that I analyzed. Each dialogic discussion during the second half of the semester required 30 minutes of instructional time.

3.3.7 Interviews

Six focal students (three students in each condition) participated in end-of-semester exit

interviews in which students had the opportunity to demonstrate and reflect on their learning during the semester. I devised an interview protocol (see Appendix C), which probed students to externalize their thinking about the multimodal or unimodal projects and classroom discussions in which they engaged. While the purposes of the interview were multiple, they included the primary goal of understanding how interview respondents made sense of the literacy experiences in which they engaged during their English class. To achieve this goal, I developed questions that were open-ended and had no “right” answers. Questions asked students to (a) reconnect with ideas that were presented either in their small group or whole class discussion, (b) articulate ideas in the text that were not brought up during the students’ small group or whole class discussion, (c) interpret, compare, describe, analyze, and evaluate ideas in the text, and (d) reflect on their own learning through classroom activities.

3.4 CONTEXT OF THE INVESTIGATION

3.4.1 A profile of Mr. Smith’s classroom

Six weeks before classes began, Mr. Smith and I met to create a plan for this semester-long research study. After discussing some of the challenges and successes that Mr. Smith had experienced while facilitating discussions of literature in the past, we agreed that it would be important to establish norms for discussion that were explicitly stated for students near the beginning of the semester. Mr. Smith noted:

One thing that I saw was rarely would they react to each other and maintain the whole group setting. . . .It would just devolve into (??). So that’s one thing, early on, in the

Beowulf unit or something, I need to do something where I'm establishing how the whole group discussion will work. "How do you respond to each other?" Because they're seniors and they can definitely do it, but How do they all stay focused on one idea?
(Planning Session 1)

Classroom discourse analysts have highlighted how important it is for teachers to establish discourse norms early in the academic year if teachers hope to develop learning communities—and the dialogism that characterizes talk within learning communities—in their classrooms (Bloome, Carter, Christian, Otto, & Shuart-Faris 2005; Rex & Schiller, 2009; Rex et al., 2010). With this goal in mind I observed class on the day when Mr. Smith established the norms that he and the students in his classes would follow when engaging in discussions throughout the semester. Before I draw on my field notes and interpretive memos to portray Mr. Smith's classroom, I provide a brief profile of Mr. Smith, himself.

Mr. Smith was a second-year teacher at River Valley High School,⁵ a large suburban school in the eastern United States. He completed a Master of Arts in Teaching degree and teaching certification at a large research institution where he was also a student in a course that I taught. That course drew heavily on the Junior Great Books model for discussion called "shared inquiry" (The Great Books Foundation, 1999) and focused on planning, leading, and assessing text-based discussions in English classrooms. After his graduation, Mr. Smith collaborated with me on a pilot study that I co-conducted that dealt with measuring classroom discussions in literacy classrooms. Mr. Smith and I have also planned future collaborative opportunities as he is currently seeking admission to a doctoral program in Language, Literacy and Culture, and has a strong interest in research on literature instruction. Thus, Mr. Smith was, perhaps, not a typical

⁵ All school, student, and teacher names are pseudonyms.

second-year English teacher since he had participated actively in multiple research-related opportunities while teaching on a full-time basis and seeking admission to a doctoral program of studies.

3.4.1.1 Mr. Smith's description of his students

In the spring prior to data collection, I contacted Mr. Smith to describe my dissertation project and inquire as to his interest in participating in the study. He responded enthusiastically to my message and provided the following description of his typical classroom:

I'm interested to learn more about dialogic discussion, as giving control of discussion to students and still finding that it is productive has been a challenge. . . .I teach 12th graders at the "academic" level, which is general English. The curriculum is mostly British literature with a focus on teaching stories of epic and tragic heroes. The course always has a wide variety of students. Many will go to colleges, some to community college, and others straight into work—so one thing that would be interesting would be learning how to frame the discussion as something that is not just an academic exercise but as a way of thinking and discussing that has real world value for those who do not have an interest in going to more school, or whether the discussion could spark interest that was not previously there. The course level also tends to have students with a variety of special needs and IEPs. (personal communication, April 30, 2009)

Mr. Smith's description is telling for a number of reasons. First, he recognizes that facilitating productive dialogic discussions is not something that "magically" happens without a lot of behind-the-scenes work (see, for example, Grossman, n.d., "Preparing Teachers to Lead Text-Based, Student-Centered Discussions"). Mr. Smith highlights one important goal that he has for all of the students who take his course regardless of their future academic plans: to learn how to

participate in discussions as a tool that facilitates thinking rather than a school exercise in which “academic” students answer trivial questions about literature while “non-academic” students sit back and watch. Having this goal for the diverse student population that Mr. Smith describes positions his students as agents in their own learning processes.

The 12th-grade English curriculum was established by Mr. Smith’s school district, although he was “just realizing now how to work with it” (Planning Session 1). Students read three main texts: *Macbeth*, *The Natural*, and *The Princess Bride* during the semester. Mr. Smith also included a unit on poetry, and his course built in frequent opportunities for students to write, including a research paper—“a very major project” (Planning Session 1)—that students worked on for much of the semester.

Mr. Smith drew on other tools as well, which represented his perspectives on learning and the role that student talk played in learning. One tool in particular—A Think Aloud Protocol (Think Alouds)—was used throughout his 12th-grade curriculum (Planning Session 1). Think Alouds were frequently assigned as homework for students to complete as they read through literary texts. This writing task required students to pose questions, identify key moments, or highlight interesting ideas that occurred to students during their reading in preparation for class meetings in which the text would be explored in various ways. To get to know his students’ various perspectives and to encourage students’ engagement with different modes of instruction throughout the semester, Mr. Smith also included a Multiple Intelligences Project in his curriculum, which he had “tweaked every time so far, because [he’s] not always satisfied with

what [he's] getting" (Planning Session 1).⁶

In our first meeting in which we discussed our plans for this research project, Mr. Smith stated one outcome that he hoped might emerge from his collaboration with me:

One thing that I would like to do is to work multimodal instruction into everyday units, not just a major project. So if it could be something where we create smaller versions of [the Multiple Intelligences project], that could be done in two days' time instead of two or three weeks, that would be great. (Planning Session 1)

Although some of Mr. Smith's students completed Multiple Intelligences projects, such as drawings or films that required time and effort over a number of days, he confessed that some students did not take advantage of the opportunity and completed the assignment the night before it was due. Mr. Smith framed this issue not as a problem with his students and their lack of motivation or tendency toward procrastination, but as a missed learning opportunity to explore multimodality in the curriculum. He articulated his hope that multimodal tasks could be built into the regular curriculum throughout the semester, and even identified this topic as a focus for the action research project that he was scheduled to conduct in the spring semester of 2010.

3.4.1.2 Mr. Smith's classroom

The second and third periods of Mr. Smith's English 12 course met in the Advanced Placement (A.P.) English teacher's room. Since Mr. Smith did not have a room of his own, he stored many

⁶ Students completed this project as they read Bernard Malamud's novel, *The Natural*. Students could choose whether to work alone or in groups to complete a project that utilized one of the intelligences described in Howard Gardner's theory of multiple intelligences. The project guidelines for the musical intelligence option read: "Create a soundtrack for the novel (connect music to specific plot events); Write and perform a song that explains the novel or a scene from the novel and sing it for the class; Compose and perform a song that expresses the ideas in the book and perform it for the class."

of his supplies in a small locker in the A.P. English teacher's room. Among these supplies was included a small white board that Mr. Smith leaned against the ledge of the Smart Board at the front of the classroom. There was hardly a bare space on the walls. Student work, writing tips, quotations from prominent writers and literary critics adorned almost every square inch of wall space. Mr. Smith was allocated one section of the white board at the front of the room on which he would hang student work later in the year. His unit outlines were printed on 8.5-inch by 11-inch sheets of paper and were hung on the tack line, barely visible, above the white board.

Throughout the semester, Mr. Smith, his students, and I often walked into a space in which A.P. students were taking up every last second of class time to discuss aspects of their writing, ways in which to improve their score on the A.P. exam, subtle differences between the meanings of words such as “healthy” and “healthful,” and potential ways to approach interpreting difficult essays written by literary critics such as Susan Sontag. A.P. students' desks were arranged in traditional rows facing the front of the room where the A.P. teacher's podium stood. This classroom culture and Mr. Smith's classroom cultures, as I will demonstrate in the next section, seemed to operate on two different planes, and it was clear that Mr. Smith's students and Mr. Smith himself were visitors rather than inhabitants of Room 130.

3.4.1.3 Setting discourse norms

For the whole class discussion of *Beowulf*, Mr. Smith created a discussion organizer to facilitate students' talk about this text. Mr. Smith also informed students that these organizers would be collected at the end of the discussion—a practice that would be sustained throughout the entire semester. The organizer listed the overarching unit question, brainstorming activities to be completed individually prior to discussion, a list of discussion questions that would actually be posed during the class period, and space to record individual responses to the discussion

questions. The back side of each of these discussion organizers included a section for a wrap-up question, a reminder of the discussion rules, and a discussion self-scoring rubric that asked students to rate their performance in speaking, listening, reading, and writing (see Appendix F for a typical example of one of Mr. Smith's discussion organizers).

When Mr. Smith announced that he would like to discuss how he and his students would discuss literary texts throughout this semester, he physically transformed the space of the classroom. He repositioned the desks from the traditional rows into a large circle and situated himself among the students, on one side of the circle.

Mr. Smith explained that the class would be talking about "how we are going to do discussion pretty frequently." He told students: "You are driving things on your own" and explained "I think you can get what's going on in the story [*i.e., comprehend the text*], but the most interesting part is interpreting your ideas. . . .hearing others talk about [the text] will increase your own understanding" (Field notes).

Mr. Smith then went through the discussion rules with the class.⁷ Discussion Rule 1 stated that students needed to do the reading, and the teacher elaborated on the reason why: "be prepared to be able to talk; it makes it better for everyone" (Field notes). Mr. Smith described how the Think Alouds would be assigned for homework during the current unit and how these Think Alouds could help students to come to the discussion prepared to participate. Mike, who

⁷ Mr. Smith's discussion rules were very closely related to the rules for discussion that guide shared inquiry discussions of literature (The Great Books Foundation, 1999). The Great Books Foundation (1999), in an effort to "make the best possible use of discussion time" (p. 66) has articulated the following four rules to guide shared inquiry discussions of literature: "Only people who have read the story may take part in Shared Inquiry Discussion. Discuss only the story everyone has read. Do not use other people's opinions about the story unless you can back them up with evidence of your own. Leaders may only ask questions; they may not answer them" (The Great Books Foundation, 1999, p. 67).

was one of the most active participants in Period 2, asked “If I completely understand [the text] do I have to do the Think Alouds?” (Field notes). Mr. Smith answered in the affirmative; the questioning student replied, “Thank you.”

Discussion Rule 2 read: “Keep discussion focused on what you have read.” Mr. Smith then reminded students to “be careful about bringing in movies” (Field notes) since not everyone may have seen the movie and therefore could lack the common referent. In an interpretive memo based on my field notes, I wrote that this rule

may have some implications on the Intertextuality code [used for whole class discussions] later in the semester, although students may inevitably succumb to these inter- and extra-textual references as they do later in this class period when they talk about an episode of “The Simpsons” that draws heavily on *Beowulf*. (Field notes)

Indeed, Mr. Smith, himself, during the discussion of *Beowulf* asked students “What does [the storyline in *Beowulf*] remind you of?” (Field notes) to which multiple relevant intertextual responses were uttered.

Mr. Smith then emphasized how Discussion Rule 3—“use evidence to support opinions”—may also help strengthen the quality of students’ writing, in addition to students’ discussion of the text. “Ask Questions,” specifically students’ self-generated questions, was Discussion Rule 4. Mr. Smith stated that students shouldn’t be afraid to bring up questions that they may have and that they should try to get other students to help to answer questions during discussion. Students should not, however, Mr. Smith said, “ask a question and then answer it right away” (Field notes). Finally, the teacher emphasized the importance of Discussion Rule 5: “Listen Carefully.” Mr. Smith then provided a reason why listening matters: “Anything that anyone could say might give you some ideas about the text that you didn’t have before.”

Although Mr. Smith told students in his third period class that ideas uttered during class discussions “may show up on an assessment in the future” (Field notes), he did not highlight this reason in the second period class as he established the discussion norms and reasons for those norms, even though it was included under the Discussion Rules on the handout (Appendix F).

3.5 DATA ANALYSIS AND INTERPRETATION

3.5.1 Classroom discourse analysis

3.5.1.1 Coding multimodal and unimodal small group discussions for semiotic mediation

I employed methods of classroom discourse analysis to examine students’ meaning making processes during multimodal and unimodal activities. To that end, I adapted a coding scheme that allowed me to identify instances of semiotic mediation during small group work (see Appendix B).

To identify how students made meaning during their multimodal and unimodal project work, transcripts were coded for evidence of the following three aspects of semiotic mediation involved in meaning making as identified in Brooks and Donato (1994): (a) speaking (and using other semiotic tools) as object regulation, primarily through the use of metatalk, or “metacognition out loud” (p. 267), which “enables learners to think about, make sense of, and control the task itself (object) as it is presented to them” (p. 266); (b) speaking (and using other semiotic tools) as shared orientation through which speakers establish intersubjectivity by jointly defining the perspective they will take and the procedures they will use to complete the task; and (c) speaking (and using other semiotic tools) as goal formation in which the speakers articulate

the plan to complete the task through talk that makes sense of the purposes of the activity. Frawley (1987) identified these aspects of semiotic mediation in terms of their functions to regulate or control objects, others, or the self (p. 147). Thus, students' talk during their small group discussions was analyzed from a functional perspective: How did students use language (and other semiotic tools) to make sense of the task, others, and themselves?

By coding the transcripts for evidence of semiotic mediation, I was able to determine how students were making meaning and negotiating meaning through different sign systems. I have chosen to code these aspects of semiotic mediation identified by Brooks and Donato (1994) (metacognition, intersubjectivity, and goal formation) because they corresponded with the processes described in the research literature that has identified how engaging in processes of transmediation has informed students' literacy learning (Miller, 2003; Smagorinsky, 1995; Rowe, 1998; Whitin, 2005). By examining students' collaborative activity using a Vygotskian framework in both conditions, I was able to collect data on students' learning as they "thought aloud" to one another, responded to others' ideas, and developed their envisionments (Langer, 1995), or temporary understandings of literary texts.

3.5.1.2 Coding whole class discussions for dialogic engagement.

Using the talking turn as the unit of analysis, dialogic discussions were transcribed and coded for the teacher and student moves that were made during the discussion. I synthesized the research findings on dialogic discussions to generate a list of nine teacher moves that I used to devise a coding scheme to analyze teacher talk during classroom discussions of literature. Drawing primarily from the body of research on dialogic discussions assembled by Nystrand and his colleagues (Applebee et al., 2003; Christoph & Nystrand, 2001; Nystrand, 1997; 2006; Nystrand & Gamoran, 1991; Nystrand et al., 2003), I coded each discussion for the following aspects of

dialogic discourse: (a) using accountable talk and revoicing to create shared understanding of a text (Michaels, O'Connor, & Resnick, 2008; O'Connor & Michaels, 1993); (b) posing authentic questions (questions posed that do not prompt pre-specified answers) (Nystrand & Gamoran, 1991); (c) coaching students and scaffolding student talk (Kong & Pearson, 2003; Morocco & Hindin, 2002); (d) establishing and using interpretive and exploratory discourse norms (Hadjoannou, 2007; Morocco & Hindin, 2002; Whitin, 2005); (e) making intertextual connections to previous class discussions or texts to create curricular coherence (Applebee, 1996; Bloome et al., 2005; Shuart-Faris & Bloome, 2004); (f) providing "just in time" information for students as they require and ask for it during discussion (McIntyre et al., 2006); (g) modeling interpretive thinking during discussions of literature (Christoph & Nystrand, 2001; Kong & Pearson, 2003); (h) using student knowledge to facilitate discussion (Kong & Pearson, 2003); and (i) engaging in uptake (using previous students' responses to extend or deepen discussion) (Nystrand & Gamoran, 1991).

I coded student talk based on the following list that I compiled of 12 dialogic moves that researchers have related to students' learning by substantively engaging in discussions of literary texts: (a) challenging classmates to consider alternative perspectives (Keefer, Zeitz, & Resnick, 2000); (b) using positive metatalk that encourages others to participate in the discussion (Almasi et al., 2001; Kong & Pearson, 2003; McIntyre et al., 2006); (c) exploring possibilities, taking alternative perspectives, and using tentative textual interpretations (Langer, 1993); (d) elaborating on prior knowledge to extend current thinking (Langer, 1993); (e) warranting claims using evidence (Hadjoannou, 2007; Keefer et al., 2000); (f) making intertextual connections (Bloome et al., 2005; Lemke, 1989); (g) making nonstrategic concessions during the course of discussion (Keefer et al., 2000); (h) participating in open discussion (student-to-student

discussion for more than two talking turns) (Nystrand & Gamoran, 1991); (i) posing student-generated questions (Nystrand et al., 2003); (j) engaging in hypothetical reasoning (Morocco & Hindin, 2002); (k) using reasoning that is hypothetical, personal, based on events, character, or language that supports textual interpretations (Keefer et al., 2000; Morocco & Hindin, 2002); and (l) taking up others' ideas to extend discussion (Nystrand & Gamoran, 1991). Eight whole class discussions were coded for dialogic engagement and inter-rater reliability was established at the level of .70 for student and teacher dialogic moves, .73 for evidence source codes, and .70 for reasoning codes.

Dialogic codes were tallied and compared for each discussion. By identifying how students demonstrated learning through unimodally- and multimodally- mediated discussion, I was able to (a) determine how students were able to draw on their multimodal literacies to make meaning from literary texts, (b) trace and compare students' meaning making through multimodal instructional activities as students transmediated literary interpretations across sign systems, and (c) provide compelling evidence for classroom instruction that supported the development of an effective academic literacy practice.

Coding discussions using a dialogic scheme was appropriate for identifying the sociocultural nature of students' interpretations since dialogism posits the notion that every utterance responds to previous utterances and simultaneously anticipates future utterances (Bakhtin, 1981)—an understanding of students' discourse that situates talk in a particular social, historical, and cultural context.

3.5.2 Interviews, field notes, and planning and debriefing sessions

I used the interview protocol from Appendix C to engage focal students in a dialogic

conversation about their literary understanding. Data from interviews represented, both analytically and chronologically, the endpoint of my study of these adolescents' literature and literacy learning. Open coding of my field notes and transcripts of planning and debriefing sessions with the secondary ELA teacher was followed by more focused coding as categories and sub-categories emerged and became refined during ongoing data analysis. Open coding of these data sources allowed me to trace the development of my interpretations of the instructional context for this study.

3.5.3 Multimodal and unimodal projects and student background surveys

Multimodal and unimodal projects were used during interviews with focal students in which I asked students to reflect on the development of the projects and how the projects informed or failed to inform their learning about the literary text on which the project was based. These projects were also used as an important data source to document students' development during activities that promoted generative processes of transmediation. The Student Background Survey helped me to determine how students participated in discussions in the past, how students currently viewed the purposes of discussion in English class, and the types of out-of-school and multimodal activities in which students engaged. This information was used to generate small groups, and added to the list of potential multimodal projects identified in Appendix G.

3.6 SUMMARY OF DATA ANALYSIS AND INTERPRETATION

In this chapter, I outlined and warranted the procedures I used in this study to investigate the

mediating factors that may shape students' engagement in dialogic discussions of literature. I incorporated a variety of methods of data analysis to provide a diverse set of lenses through which to view learning as it takes place from one moment to the next, and over an extended period of time. For each of these approaches, I described the particular steps that I took to collect the appropriate data that were subjected to these analyses. I drew from an extensive body of research on classroom discussions to generate a list of codeable moves that enhanced students' learning opportunities through discussion. Finally, I situated these techniques more generally within a sociocultural framework for understanding instruction as a consequence of teachers' and students' uses of language and other semiotic tools.

3.7 LIMITATIONS

Findings from this study must be considered in light of the limitations that existed in conducting this research. First, although a semester can constitute a longitudinal study, sociocultural studies that span a wider range of time would yield more robust findings. Such longitudinal research is much needed in sociocultural studies of classroom discourse (Donato, Antonek, & Tucker, 1996). Second, only two sociocultural contexts were considered in this study. Dialogic discussions of literature as well as the unimodal or multimodal activities that mediate these discussions may be perceived and implemented in very different ways in other schools by other teachers. While selective sampling allowed for the close analysis of uncommon classroom phenomena, the context-dependency of this method prevents generalization of these learning outcomes beyond the particular sociocultural settings of this study. Finally, this study did not account for the norms for interaction in students' other classes, which may influence students'

discourse in English. Did dialogic engagement transfer into other disciplinary contexts? In other words, what counts as dialogic discourse and what dialogic discourse counts, for example, in these students' mathematics, science, and history classrooms?

4.0 CHAPTER IV: FINDINGS FROM CYCLE 1

I have organized the findings from this study in the following manner: Chapter 4 will present findings from (a) the observation and baseline discussion period that occurred during week 3, and (b) cycle 1, which occurred during week 7, in each classroom condition. Chapters 5 and 6 will present the findings from cycle 2 (week 13) and cycle 3 (week 20), respectively. For each cycle, I present discourse analyses of focal students' small group discussions in both unimodal and multimodal classroom conditions. I follow these analyses of small group talk with analyses of the products of the focal students' small group unimodal or multimodal collaborative work. Finally, I provide discourse analyses of the whole class discussions in each condition. I triangulate these findings in chapter 7 with data compiled from interviews with focal students at the end of the semester.

4.1 OBSERVING EMERGING CLASSROOM COMMUNITIES

4.1.1 Discussing *Beowulf* in Period 2

In my observations of whole class discussions at the beginning of the semester, I noted both dialogic and monologic interactions in both Period 2 and Period 3. The questions that guided the whole class discussion during my observation addressed the nature of perspective in the epic

poem, *Beowulf*. After introducing students to the discourse norms that would characterized discussions during the semester, Mr. Smith signaled the transition in class from “talking about how to do discussion” to actually discussing by calling attention to the overarching question that the class would address: “How does one’s perspective influence how a hero can be understood?” This overarching question included the sub-questions (a) What is Unferth’s perspective of Beowulf? (b) What is Beowulf’s perspective of himself? and (c) What is Grendel’s perspective of Beowulf? To lead off, Mr. Smith asked for student volunteers to “give us a quick summary of the text” (Field notes). This invitation elicited one student response, which described how Unferth is “a guy in the King’s court” who has a strong distaste for Beowulf. Additional students chimed in before Mr. Smith asked the question: “What is Unferth’s life like before Beowulf showed up?” Mr. Smith revoiced (O’Connor & Michaels, 1996) a student response to this question with: “So you’re basically saying that he’s got a lot of jealousy?” and took up a student’s response with “What’s his reason for this?” The “this” that Mr. Smith referred to was the subject of the student’s previous response. Thus, Mr. Smith’s move illustrated an instance of uptake (Nystrand & Gamoran, 1991).

During this first half of the discussion, Mr. Smith made multiple dialogic moves, including, as already highlighted, “revoicing” students’ responses and “taking up” student ideas to extend discussion. Mr. Smith also modeled additional moves that encouraged students’ interpretations including turning to the text to clarify meanings (e.g., “Did you catch what Mike said? Do you have lines to point to? Look at page 300”) and connecting ideas in the discussion to the larger conversation that takes place within the curriculum (e.g., “How is that related to the concept of the epic hero?”) (Field notes).

It did not take long, however, before the discussion took on a more monologic pattern of classroom discourse including (a) students engaging in talk tangentially related to the text, (b) students looking to the teacher for validation of their contributions, and (c) the introduction of inauthentic or display questions (Billings & Fitzgerald, 2002). For example, as students examined the scene in *Beowulf* in which Beowulf declared himself “the strongest swimmer in the world” (line 534), and told a tale of his extraordinary defeat of Brecca as Beowulf swam the North Sea, the following interaction occurred:

1. Lee: Seven days is a long time to swim.
2. Thomas: [Michael] Phelps could it.
3. Mark: His lungs couldn't handle it.
4. Nelson: You'd know from experience, wouldn't you?

In this quick exchange, Lee suggested that it would be extra-ordinary to swim for seven days without a rest. This reflection caused Thomas to reference the modern day “strongest swimmer in the world,” the highly decorated Olympic gold medalist, Michael Phelps. Mark took up Thomas's reference to connect Phelps to a recent photograph that had emerged in the news media in which Phelps was shown smoking marijuana, and suggested that his capacity to swim for such an extended period would be hindered due to his recent inhalation activity. Nelson then insinuated that Mark would require personal experience swimming for an extended of time post marijuana smoking in order to make such a claim. Each student turn that followed Lee's utterance can be understood as a purposeful discourse move on a number of levels, but in terms of sparking dialogue about the epic poem, functioned as a move that closed dialogue rather than opened it up. Indeed, turns 2, 3, and 4 served as the final word of an insider conversation, and, thus illustrated, perhaps paradoxically, monologic moves among multiple speakers.

Such an exchange of extra-textual references coupled with insider insults among boys was not uncommon in either of the two sections that I studied in Mr. Smith's classrooms. Later in the semester, Mr. Smith would publicly and immediately address comments made during discussion that jeopardized the learning community that had been co-constructed throughout the year. In this instance, however, Mr. Smith ignored the comment altogether and directed the class's attention back to the text, with a follow-up question: "Why did they do this swimming challenge? Just to experience the danger? What is Unferth's point of view?" The first dialogic spell (Nystrand, 1997)—or open exchange of ideas about a text among more than three students that lasted for more than 3 talking turns and could be characterized by authentic questions and the uptake of ideas—of the year results:

1. David: Why did he do it, just because (??)
2. Mike: Why do you do [things like that] yourself?
3. Elizabeth: That was like his whole society back then.
4. Luke: But if someone called him a fool, then..."

David's authentic question in turn 1 sought reasons for Beowulf's extraordinary display of strength and stamina. Mike's move in turn 2 connected the character's motivations in the text with parallel demonstrations of aptitude with which he and his peers would be familiar in contemporary society. Elizabeth brought the conversation back to the text in turn 3 by identifying the important role of (the concept that was later labeled) honor. Luke then took up Elizabeth's comment to consider the social consequences of an insult such as Beowulf incurred. This dialogic spell ended when Mr. Smith and the class revisited the text at the point in which this insult was delivered.

Mr. Smith played an audio file on the Smart Board that included the visual text that was read dramatically while almost all of the students followed along in their textbooks. These dramatic readings were followed by more discussion, which, however, after this point in the class period, became teacher fronted (Forman et al., 1998). Mr. Smith asked multiple questions that included a variety of authentic, quasi-authentic and inauthentic questions (Nystrand & Gamoran, 1991). For the most part students provided short, singular responses to these questions, after which followed another teacher question.

4.1.2 Discussing *Beowulf* in Period 3

The discussion in Period 3 began in much the same way as Period 2's discussion: Mr. Smith asked for a volunteer to summarize the reading of the text that was assigned for homework and then allowed for students to respond to his question, "What is Unferth's opinion of Beowulf?" before interjecting follow-up questions, references to the text, or challenges to student ideas as he had done during Period 2.

Mr. Smith made three moves that were absent from the second period's discussion. First, Mr. Smith used humor in responding to student contributions. After Mr. Smith asked students about Beowulf's particular abilities, a student replied that Beowulf had killed monsters, to which Mr. Smith retorted: "He has monster-killing experience and not everyone has that on their resume." This comment along with Mr. Smith's characterization of this class section as "much more lively" (Field notes) may illustrate one way in which Mr. Smith perceived and established a different kind of learning community in Period 3. Second, Mr. Smith also pushed back on students' comments with *follow up questions* (Great Books Foundation, 1999) that connected students' responses with larger curricular goals. For example, both Leonard and Louise made

contributions in response to Mr. Smith's question, "Do we trust Beowulf's account of the swimming contest?" Mr. Smith *summarized* (Great Books Foundation, 1999) those responses through revoicing, and then asked all of the students in the class: "How does that connect to the epic hero idea?" This move explicitly connected the discussion with an overarching question for the semester and, thus, promoted what Applebee (1996) referred to as "continuity" within the curriculum (p. 72). Third, Mr. Smith connected ideas in the text with students' own lives, asking: "Have you ever done anything when you were young that you later thought, maybe I shouldn't have done that?" Although this particular move—opening up the floor for discussion outside of the realm of the text—violated one of the four rules for shared inquiry discussions, Mr. Smith made such moves sparingly.

These examples illustrated the opportunities that existed very early on in the semester for students to engage dialogically about texts during discussions. These opportunities were created by, among other things, (a) the teacher's framing of discussion as a literacy practice that is developed through active participation (e.g., "We're going to practice this several times this semester" [Field notes]) and (b) the careful crafting of open-ended questions that could be related to learning goals in the curriculum.

4.2 BASELINE DISCUSSIONS: WEEK 3

After observing students' discussion of *Beowulf* during week 2 and prior to any intervention cycles taking place, I digitally video recorded one whole class discussion in each class period. The topic of discussion was the text, *Grendel* (Gardner, 1971). Grendel is a character in *Beowulf* and Gardner's (1971) text provided his particular perspective on the events that took place in the

original epic poem. Mr. Smith and his students had been exploring the question, “How does one’s perspective influence the way a “hero” can be understood?” during their study of *Beowulf*, and took up this question again while reading *Grendel*. Students spent the first fifteen minutes of class completing a Compare and Contrast Map that Mr. Smith designed to promote students’ recall and organization of information from both of these texts (see Appendix H).

4.2.1 Baseline discussions of *Grendel* in Periods 2 and 3

Upon completion of the Compare and Contrast Map, Mr. Smith asked students to share some of their ideas before the discussion of the text began. The baseline discussion in both periods resembled, in many ways, a typical discussion that might be encountered in many secondary English classrooms in the United States (Applebee et al., 2003; Nystrand & Gamoran, 1991). During the 30-minute discussion, students responded with brief answers to Mr. Smith’s questions, directed their responses solely to the teacher, who, in an effort to probe more deeply into the text proceeded to ask more and more questions. In fact, although Mr. Smith had crafted only 3 discussion questions to explore in depth, he—along with his students—actually posed 52 questions in Period 2 and 51 questions during Period 3 (see Table 4). Table 4 illustrates some general features (average length of student and teacher turns at talk, the number of student interpretations that were generated, the number of dialogic spells that occurred, and the number of planned and posed questions by the teacher) that are useful to characterize the nature of this discussion, especially in comparison to discussions that will occur later in the semester. Table 5 provides a comparative synopsis of the nature of the baseline discussion of this text by considering the extent to which the teacher and students made potentially dialogic and

monologic discursive moves during the discussion. In the next section, I highlight the salient discursive features that these descriptive statistics represent.

Table 4. Characteristics of Baseline Discussion by Class Period

Characteristics	Period 2	Period 3
Total number of pre-planned discussion questions	3	3
Total number of questions posed by the teacher	52	51
Total number of student interpretations	45	58
Total number of student turns at talk	104	112
Total number of teacher turns at talk	83	76
Average length of teacher response (words/turn)	31.7	33.2
Average length of student response (words/turn)	21.1	21.4
Total number of dialogic spells during discussion	8	8

Table 5. Number of Student Moves During Baseline Discussion by Class Period

Coding Categories	Period 2	Period 3
Extension/Elaboration	32	35
Perspective Taking	8	15
Student-Generated Question	4	4
Uptake	2	0
Challenge	1	7
Intertextual Reference	1	1
Evidence Source—Inference	24	26
Evidence Source—Prior Knowledge	5	8
Evidence Source—Text	12	12
Reasoning—Character	13	24
Reasoning—Event	9	8
Reasoning—Hypothetical	9	1
Reasoning—Personal	5	12
Unconstructive Challenge	2	0
Unelaborated Response	39	50
No Code/Off Task	14	10

4.2.1.1 Baseline student talk

As revealed in Table 4, both students' and the teacher's participation in the baseline discussion of *Grendel* is similar in Periods 2 and 3. Students generated 45 interpretations of the text in

Period 2 and 58 interpretations of the text in Period 3. The number of interpretations corresponded to the number of dialogic moves coded in the transcript. These moves included (a) extending or elaborating one's response without teacher prompting, (b) exploring possibilities in the text, (c) taking up other students' responses to extend discussion, (d) challenging ideas made by fellow students, (e) making intertextual references that highlight some aspect of the text under study, and (f) making nonstrategic concessions for one's perspective on the text when another student provides persuasive evidence for a competing point of view on the text.

In both periods, eight dialogic spells occurred. During these spells, three or more students discussed the text with minimal teacher intervention, authentic questions about the text were posed, and students drew on others' ideas to extend the discussion. During Period 2, there were 5 dialogic spells among 3 students, one dialogic spell among 5 students, and 2 dialogic spells among 7 students. During Period 3, there were also 5 dialogic spells among 3 students, but only one dialogic spell among four students, and 2 dialogic spells among 5 students. The following presents a typical dialogic spell from the transcript:

1. Mr. Smith: So do you believe Grendel, that it was an accident? Because we talked before about well, maybe Beowulf was just lucky in the original story.

Kevin: I mean, I think he was. Grendel didn't know he was asleep, awake. If Grendel knew he was awake, I don't think it woulda been as one-sided as it was.

Mr. Smith: Does that make Beowulf lucky or does that make him smart?

Kevin: Smart, but, part lucky.
5. Sal: Skillful.

- Mr. Smith: So literally, as Grendel is=
- Leonard: (*raises hand*) =Mr. Smith? I think that everyone says that they think it's lucky for Beowulf to do that. He fought him fair as in a fistfight, but he didn't fight him fair like as an approach to the fight. Like, he didn't make it a fair beginning.
- Sal: Oh, yeah. He snuck 'em.
- Leonard: Yeah, he snuck 'em. He caught 'em off-guard so.
10. Ethan: But Grendel does that to everyone.
- Leonard: Yeah, I know, but if you wanted a fair fight and he said let faith, or let fate decide my death or not, he kinda really didn't let fate decide because he tricked Grendel. So it's kinda like "I'm gonna let fate decide, but I'm gonna bend it so that I will win."
- Ian: Did Beowulf talk about fate and losing to Grendel?
- Mr. Smith: Well, we know that from the original story.
- Ian: Yeah, but...

In this excerpt from Period 3's baseline discussion transcript, five different students (Kevin, Leonard, Sal, Ethan, and Ian) contributed dialogically to the discussion by posing authentic questions (turn 12), challenging previous students' responses respectfully (turns 7, 10), exploring interpretive possibilities in the text by considering hypothetical situations (turn 2), and drawing on the text to make an interpretation about the text that is not evident in the text (turn 11). It's important to note that the dialogic spell in this case was promoted by Leonard's stance in turn 7 and not by Mr. Smith's original question. This finding supports earlier research that found that

dialogic spells were predicted most strongly by the inclusion of student-generated, authentic questions about the text (Nystrand et al., 2003).

Dialogic student moves during the baseline discussion of *Grendel* were comparable in Periods 2 and 3 (see Table 5). Students elaborated on their responses, took up others' ideas, and generated questions at about the same rate. During 3rd period, there were more instances in which students explored possibilities within the text (15 in Period 3 versus 8 in Period 2) and challenged other students' responses (7 in Period 3 versus 1 in Period 2). These differences illustrated an increased tendency for students in Period 3 to explore multiple perspectives on the text and challenge each other's ideas respectfully—a tendency that may be related to the collegial and “lively” learning community that was established and identified in this classroom early on in the semester (Field notes).

When providing evidence for their claims, students made inferences, drew on prior knowledge, and used the text at about the same rate in both periods. In both conditions, students were most likely to use inferences to support their ideas, followed by the text, and, finally, students' prior knowledge as sources of evidence for their responses.

The two class sections were most variable when it came to the reasoning that students used to make sense of the text. Students in Period 3 were more likely to cite (a) personal and (b) character-driven reasons for their responses than students in Period 2 who provided 9 hypothetical reasons for their responses while students in Period 3 only drew on 1 hypothetical reason to support their claims. Students in both groups reasoned through their understanding of the text by drawing on events in the text comparably (9 instances in Period 2 and 8 instances in Period 3).

Monologic student discourse moves in both conditions included (a) unconstructive challenges of other students' ideas, (b) unelaborated responses to teacher or student-generated questions, and (c) otherwise non-coded talk that was not directed toward the completion of the collaborative task. Students in Period 3, who had, up until this point in the analysis exhibited more instances of dialogic student discourse moves, elicited more unelaborated responses (50) than students in Period 2 who did not elaborate on their responses to teacher or student-generated questions 39 times.

Thus, baseline student talk among students in Periods 2 and 3 was comparable along a number of dimensions (e.g., uptake, extended elaborations of the text, student-generated questions, drawing on inferences to support ideas). The number of dialogic spells that occurred as well as the number of interpretations that were generated in both class sections was quite high, especially given the fact that these data were collected during the third week of the semester. During a debriefing session on these data, Mr. Smith noted that students' previous teachers at River Valley High School were committed to implementing and promoting interpretive discussions in their English classrooms (personal communication, March 18, 2010).

Some important differences seemed to characterize students' talk in these two periods, as well. Students in Period 3 were more likely to (a) challenge responses, (b) elaborate on their own responses, and (c) respond to Mr. Smith's questions with more unelaborated responses. The fact that these students responded with both more elaborated and unelaborated turns at talk to Mr. Smith's questions supported the teacher's impression of this class section as "much more lively."

4.2.1.2 Baseline teacher talk

Mr. Smith engaged in discussion with students by making comparable discursive moves in both periods. Some of Mr. Smith's more frequently made moves that encouraged students' dialogic

talk included (a) revoicing and probing student responses to extend discussion, (b) coaching and scaffolding student talk by explicitly turning to the text, and (c) establishing exploratory discourse norms during discussion by leaving open possibilities for multiple perspectives on the text (see Table 6).

Table 6. Number of Teacher Moves During Baseline Discussion by Class Period

Coding Categories	Period 2	Period 3
Revoicing/Accountable Talk	15	8
Uptake	10	13
Scaffolding	9	10
Establishing Discourse Norms	12	17
Just in Time Information	2	4
Using Student Knowledge	1	1
Modeling	0	3
Providing Information	6	4
Repeating Question	1	3
Display Question	2	4

From time to time, Mr. Smith posed display questions that had only one correct answer and repeated already posed questions when the discussion did not seem to deal with a particular question sufficiently. The following excerpt from Period 2 illustrates Mr. Smith’s most typical pattern of interaction with students during the baseline discussions of *Grendel* in both conditions:

1. Mr. Smith: You’ll notice a lot of similarity between the original story and this one. And the words that they say to each other. But the tone as Grendel sees it is maybe a little bit different—so look for those things...Look at 162 with me, when Beowulf finishes this story. What’s the room like? Picture the room. Beowulf finishes his story about the swimming match and the beasts...

Mike: Silent.

Mr. Smith: It is. It’s completely silent. Why? How are they feeling? Reacting?

- Lee: Surprised.
5. Paul: He said so serious. It says, uh, “Now the Danes were laughing as soon as he said it so also calms us the (???)”
- Mr. Smith: Keep going with that. Right? It keeps talking about how calm he’s doing these things. Keep going with that—with that paragraph. *(reading from the text)* “He believed every word he said. I understood at last the look in his eyes. He was insane.” He doesn’t just mean *(gesturing, as if to dismiss someone)* “Alright that’s crazy.” He means he literally thinks Beowulf is insane and out of his head. Is that anything that you’re led to believe in the original story?
- Students: Uh uh. No.
- Mr. Smith: So again, thinking about this new perspective, Does Grendel have a point here?
- Isabel: Yeah.
10. Mr. Smith: *(pointing to Isabel)* Why?

In this excerpt, Mr. Smith guided students through a close reading of the text and pointed out literary elements at work in *Grendel* (turn 1). He engaged students in envisioning literature (Langer, 1995) (turn 1) and took up student responses to extend discussion (turn 3). However, Mr. Smith also posed multiple questions within a single turn at talk (turn 3) and did most of the cognitive work, or heavy lifting involved in creating a coherent picture of the text (turns 1, 3, 6, 8). The questions that Mr. Smith posed on the heels of his own analysis of the text often elicited single-word responses that served to promote another longer analysis by Mr. Smith (turns 2, 4, 7,

9). So, although Mr. Smith drew on and implemented multiple moves that are characteristic of dialogic discussions, the baseline discussions were still clearly teacher-centered. Some frequencies in the data revealed a monologic trend in the teacher's discourse. These patterns included the ratio of nearly two questions posed by the teacher for every one minute of discussion and the much longer teacher turns at talk when compared to student turns at talk.

Table 4 presents additional evidence for the teacher-centered nature of these baseline discussions. Not only did these discussions include more than 50 teacher-posed questions in a thirty-minute time period, but Mr. Smith's turns at talk were considerably longer in length than students' turns at talk. While student turns at talk in each condition averaged about 21 words, Mr. Smith's average turn at talk included 31.7 words per turn in Period 2 and 33.2 words per turn in Period 3. Because this pattern eventually changed over the course of the semester, one possible explanation for the teacher-fronted nature of these baseline discussions could be that Mr. Smith was attempting to scaffold and model how questions could promote students' orientation toward discussion as a thinking tool. Thus, the teacher's talk during baseline discussion included multiple dialogic moves; however, these moves were patterned in such a way that students' dialogic engagement with one another about the text was limited. That is to say, because the teacher posed so many questions and spoke at such a great length throughout the discussions, students had fewer opportunities to explore concepts from the text deeply or over an extended sequence of turns before another question was posed.

4.3 CYCLE 1: WEEK 7

4.3.1 Cycle 1 small group discourse analyses

Following the baseline discussions, the classes moved into the first intervention cycle. Students in both Period 2 (unimodal condition) and Period 3 (multimodal condition) met in groups of three or four for 60 minutes on the day prior to the whole class discussion of Shakespeare's *Macbeth* (1992) in order to complete a collaborative assignment in which students had the opportunity to address one of several interpretive questions (see Appendix I). Students were asked to brainstorm possible responses for five different interpretive questions about *Macbeth* before they selected one question and constructed an appropriate response. Since this was the first time that students engaged in a project of this sort in Mr. Smith's classroom, the direction sheet included a number of responses to anticipated questions that students might have had while attempting to complete the project (e.g., "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"). This directive reinforced the notion that students should treat questions as "thinking devices" (Lotman, 1988) during their small group discussions.

For example, students in the unimodal groups, might have responded to the question, "Identify a metaphor that could describe Macbeth's actions and/or thoughts from the beginning of the play until the end. Use and analyze at least three examples from the text to explain the metaphor you have created." Students in the multimodal groups, on the other hand, might have responded to this version of the question: "Make something using the materials provided to you that could function as a metaphor that could describe Macbeth's actions and/or thoughts from the

beginning of the play until the end.” Every attempt was made to word these prompts as comparably as possible so that students were addressing the same basic ideas from the text, but doing so through different modes.

4.3.1.1 Cycle 1 unimodal small group talk

Talk among students in the unimodal condition during cycle 1 was characterized by students’ metatalk to make sense of the task at hand during their collaborative small group activities. An overview of the characteristics of the small group talk in the unimodal condition is provided in Table 7. Three small groups engaged in completing unimodal projects on *Macbeth* for which students received one hour to plan, construct, and turn in their final written products. The first column in Table 7 provides the number of talking turns that were transcribed in each group. For example, the unimodal focal group included 868 turns at talk, whereas Eddie, Luke, and Allison completed their project with only 241 turns at talk.

Table 7. Cycle 1 Small Group Discussion Characteristics

Group (Condition)	Turns	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Elizabeth, Mike, Natalie (U)	868	480	55.3	197	22.7	90	10.4	15	1.7
Eddie, Allison, Luke (U)	241	146	60.6	30	12.4	25	10.4	11	4.6
Josh, Alan, Nathan (U)	568	451	79.4	40	7.0	33	5.8	5	0.9
Leonard, Louise, Nick (M)	486	286	58.8	98	20.2	36	7.4	19	3.9
Kevin, Hannah, Ian (M)	577	451	78.2	18	3.1	51	8.8	3	0.5
Saphire, Adam, Kelvin, Tom (M)	155	66	42.6	23	14.8	49	31.6	2	1.3
Nathan, Riley, Nelson (M)	318	185	58.2	9	2.8	89	28.0	2	0.6

I adopted the coding scheme described in Brooks and Donato (1994) to code each small group transcript for aspects of semiotic mediation (i.e., metatalk, intersubjectivity, and goal formation). Student talking turns about aspects of *Macbeth* or the ways in which they were thinking and talking about the text were coded as “metatalk.” Talking turns that focused primarily on students trying to figure out how to complete the task in terms of organizing ideas and delegating responsibilities were coded as “intersubjectivity.” Finally, talking turns in which students considered how their collaborative work related to addressing the interpretive question provided in the prompt were coded as “goal formation.” Examples of these codes can be found in Appendix B. The number of turns for each code and the percentage of total student turns per group are also provided in Table 7.

Two columns in Table 7 indicate the total number of turns per group that were not coded and the corresponding percentage of total talking turns that this number represented. For example, 480 focal group turns in the unimodal condition were not coded as (a) metatalk, (b) intersubjectivity, or (c) goal formation. This comprised 55.3% of all talking turns during that small group discussion. The talking turns that were not coded for aspects of semiotic mediation were those turns at talk in which students engaged in conversation about their social lives, sports, popular culture, and so on. All talk that dealt explicitly with the task at hand could be characterized using the coding scheme for semiotic mediation and talk that was not explicitly related to the task was not coded. So, for more than half of the talking turns during the unimodal focal group's small group discussion, students were talking about issues not directly related to the task at hand. Approximately 10% of every small group discussion was taken up by talking turns by non-members of the small group (e.g., Mr. Smith; Mrs. Nelson, the resource teacher; classmates); these turns were not coded.

Before addressing the nature of the focal group talk in the unimodal condition, Table 7 provides an illustrative snapshot of the overriding characteristics of that talk across all seven unimodal and multimodal small groups. As already pointed out, the unimodal focal group engaged in many more turns (868) than either other unimodal group (568 turns in Josh's group and 241 turns in Eddie's group), which resulted in more talk overall. The task-related unimodal focal group talk was also characterized by the "metatalk" code (22.7% of all coded turns). In fact, the focal group in the unimodal condition engaged in more metatalk in terms of raw number of codes as well as percentage of task-related small group talk than any other group in either condition. Finally, although the unimodal focal group (55.3%) and Eddie's group (60.6%) spent about half of the class time talking about topics not directly related to the task, Josh's group

talked primarily about topics that focused on ideas that were not coded for aspects of semiotic mediation (79.4% of all turns).

Overall, semiotic mediation codes in Eddie’s group were more evenly distributed (Table 7); however, upon closer inspection of each individual’s talk, it appeared that each member of this group talked primarily in terms of one of the codes for semiotic mediation. For example, most of Eddie’s task-relevant turns at talk were characterized as goal formation (12.1%). Allison’s task-relevant talk was more often than not characterized as metatalk (17.3%). Finally, Luke’s task-relevant talk was coded as intersubjectivity 23.4% of the time (see Table 8). This separation of aspects of semiotic mediation might help to explain why very little interaction occurred during this group discussion that resulted in the combination of three different paragraphs that lacked both transitions between ideas as well as coherence in reasoning (see Appendix J).

Table 8. Cycle 1 Unimodal Small Group Discussion Characteristics: Eddie, Allison, and Luke

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Eddie	66	27.4	52	78.8	6	9.1	0	0.0	8	12.1
Allison	52	21.6	39	75.0	9	17.3	3	5.8	1	1.9
Luke	94	39.0	55	58.5	15	16.0	22	23.4	2	2.1
Mr. Smith	26	10.8	--	--	--	--	--	--	--	--
Others	3	1.2	--	--	--	--	--	--	--	--
Total	241	100	146	60.6	30	12.4	25	10.4	11	4.6

Josh, Alan, and Nathan engaged in the least amount of talk that could be characterized by the codes for semiotic mediation. Although interaction in this group usually revolved around group members’ out-of-school social lives, when members of the group did engage each other about the task, it had positive effects on the development of the group’s product reproduced in

Appendix K. All members of the group contributed approximately the same number of metatalk, intersubjectivity, and goal formation turns at talk (Table 9). However, many of the ideas that were generated in this group were put to Mr. Smith for validation before the group included the idea in its final product.

Table 9. Cycle 1 Unimodal Small Group Discussion Characteristics: Josh, Alan, and Nathan

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Josh	69	12.1	41	59.4	12	17.4	14	20.3	2	2.9
Alan	230	40.5	200	87.0	18	7.8	10	4.3	2	0.9
Nathan	230	40.5	210	91.3	10	4.3	9	3.9	1	0.4
Mr. Smith	35	6.2	--	--	--	--	--	--	--	--
Others	4	0.7	--	--	--	--	--	--	--	--
Total	568	100	451	79.4	40	7.0	33	5.8	5	0.9

In the next section, I examine the nature of these descriptive statistics by considering closely the unimodal focal group’s talk and final collaborative project. I’ve purposefully selected excerpts from the unimodal focal group talk in which codes for semiotic mediation were densely populated (i.e., successive turns at talk that were coded for aspects of semiotic mediation and the lack of non-coded turns). Not surprisingly, these excerpts often corresponded to those moments during the small group’s discussion in which the “idea” was identified and fleshed out. Thus, these excerpts ought to represent critical moments as the focal group negotiated meanings drawn from the text.

Cycle 1 focal group: Elizabeth, Mike, and Natalie

Table 10 deconstructs the nature of the unimodal focal group’s talk by teasing out the particular moves made by Elizabeth, Mike, and Natalie, respectively. What stood out in this table was Mike’s relative absence from the talk that occurred; this was primarily a conversation between

Elizabeth and Natalie that was characterized by metatalk and intersubjective moves. That is, Elizabeth and Natalie spent most of their mediating talk dealing with meanings in *Macbeth* and how they might best go about completing the task. Also important to note, while both Elizabeth and Natalie engaged from time to time in dialogue about ideas not directly related to the task, almost all of Mike’s small group talk was not coded for aspects of semiotic mediation (69.7% of his talking turns).

Table 10. Cycle 1 Unimodal Focal Group Discussion Characteristics: Elizabeth, Mike, and Natalie

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Elizabeth	337	38.8	214	63.5	81	24.0	38	11.3	4	1.2
Mike	109	12.6	76	69.7	18	16.5	15	13.8	0	0.0
Natalie	336	38.7	190	56.5	98	29.2	37	11.0	11	3.3
Mr. Smith	58	6.7	--	--	--	--	--	--	--	--
Others	28	3.2	--	--	--	--	--	--	--	--
Total	868	100	480	55.3	197	22.7	90	10.4	15	1.7

In the following passage, the focal students realized what became the topic of the five-paragraph essay that they had already decided to write: They used the metaphor of the lion to “describe Macbeth’s actions and/or thoughts from the beginning of the play until the end.” After looking up the meaning of “metaphor” on *Sparknotes*, Elizabeth characterized Macbeth as a cowardly lion, but second guessed herself as to whether the cowardly lion is a metaphor or not. Mr. Smith approached the group to check in:

1. Mr. Smith: Cowardly lion? Is that your metaphor?
Elizabeth: Is that a ac- like technically a metaphor?
Natalie: Yeah, would that be ok?
Mr. Smith: (???) the cowardly lion.

5. Natalie: Like from The Wizard of Oz.
Elizabeth: He looks all big and bad but he's really not.
Mr. Smith: Well I think he could be. I think you could do that.
Natalie: To Macbeth? What was it "Macbeth is a big, bad lion that just wants to cry" or something like that?
Elizabeth: (*laughing*) Just say it's the cowardly lion.
10. Natalie: (*writing*) It-is-a-cow-ard-ly-li-on.
Elizabeth: Does that make sense?
Mr. Smith: I think there's different parts. You might have to be like end up explaining it in terms in parts of like killing Macduff's family. You might have to argue why it still applies.
Natalie: Like he's being the lion then but he's also cowardly.
Elizabeth: But that would be like his lion-like quality.
15. Mr. Smith: I see.
Elizabeth: But then behind the scenes to Lady Macbeth he's like crying in the corner.
Mike: Or we could just compare him to a real lion 'cause the real lion just sits there while the woman hunts so his wife's doing all the work.
Natalie: Hmm. That is true.
Mr. Smith: That's interesting.
20. Natalie: How do you know this?
Elizabeth: Yeah, and he's the leader too.
Mike: The lioness hunts for food. . . .Well actually it's. Alright the real

lion sits there and does nothing all day and waits for the lioness to feed him unless there is another male lion who he can challenge and just kinda show that he's the leader. He basically just kills off all the other lions (???)

Elizabeth: But Macbeth is willing to fight until his death. . . .

Mr. Smith: That could be really interesting.

25. Elizabeth: Yeah. To say that Macbeth is a lion. (*laughs*)

Natalie: "Macbeth is a lion." Ok so he waits for Lady Macbeth to be in charge?

Elizabeth: Um, well, like in front of everyone else he looks like the leader 'cause isn't like the male lion the leader of the packish thing?

Natalie: (*writing*) Ok, "In-the-front, he's-the-lead-er. But-at-home..."

Elizabeth: But behind the scenes or whatever he—Lady Macbeth has to do the dirty work.

30. Natalie: Lady Macbeth does everything.

Elizabeth: Even though she's in denial. (*laughs*)

Natalie: Meanwhile Lady Macbeth wants to become the lion.

Elizabeth: (*laughing*) But secretly wants to be the lion. Who wants to be in charge!

Natalie: Um, the third one being um...

35. Elizabeth: Um...But he's willing to fight, though.

Natalie: "Wil-ling-to-fight." To-

Elizabeth: And he won't back down, keep his status. And he won't give up.

- Natalie: Okay. That makes sense. Okay, makes sense. . . .Ok we gotta come up with a thesis statement.
- Elizabeth: (*whispers*) Thesis. . . .Alright, well there are three points.
40. Natalie: It says, he won't back down. (*writing*) Leader-ish.
- Elizabeth: ish ish. (*laughs*)
- Natalie: Um. Fought for what he believed in. Because he believed that he would because he believed that like um he was destined.
- Elizabeth: He believed in the witches.
- Natalie: So he was destined to become king therefore he had to fight and kill Duncan.
45. Elizabeth: Alright, It says put these two together. And then we'll use Lady Macbeth's role as a whole different paragraph 'cause that'll need lots of explaining. And that's like=
- Natalie: =Isn't it supposed to be like five paragraph. . . .We have to have three examples though.
- Elizabeth: Yeah.
- Mr. Smith: It doesn't have to be exact whatever you come up with.
- Elizabeth: Oh. So we can have just a four paragraph like=
50. Mr. Smith: =If that's what you come up with=
- Elizabeth: =one on Macbeth and one on Lady Macbeth.
- Mr. Smith: =if that's how you explain it. Yes.
- Elizabeth: Both of the roles. Ish.
- Natalie: Well we can do a thing on Lady Macbeth a thing on Macbeth and

that thing and then a paragraph on how like they intertwine.

55. Elizabeth: Sure. Yeah.

Natalie: Ok thesis statement.

Elizabeth: (*slowly*) Thesis.

Mike: Um. I hate (?).

Elizabeth: How can we make it into a thesis statement?

The above excerpt illustrates the evolution of Elizabeth's idea that Macbeth is a cowardly lion to the idea that Macbeth is a lion and, ultimately, that Lady Macbeth is a lioness. Although most of Mike's talk was not explicitly related to the task, his contributions to the small group discussion were consequential. Mike's interjection in the series of exchanges above functioned as a pivotal point in the group's collective thinking. Mike suggested that the group consider Macbeth, the lion, in turn 17, because of what he understood the relationship to be between male and female lions. This suggestion also took care of Mr. Smith's rhetorical concern about reconciling the characteristics of a "cowardly" lion with Macbeth's murderous actions that pervade Shakespeare's play (turn 12).

As the last half of the previous excerpt revealed, the characteristics of students' talk about the text shift from metatalk codes in which students explored various possibilities in the text (turns 23, 26, 27, 29, 32, and 33) to a series of intersubjectivity codes in which the students conformed their ideas into the structure of the task (turns 34, 38, 39, 45, 46, 49, 51, 54, and 59). The resulting goal of the group's collaborative work is a five-paragraph essay that required a minimum amount of three pieces of evidence and included a hook, thesis statement, topic

- Mike: It's like "Tell us why there should be no dress code." You can lie about that like 400 different ways.
10. Mr. Smith: Yeah, but I'm not talking about the whole thing. I'm just talking about the very beginning. The thesis, right? In the dress code question you would say something about the reason to implement a dress code.
- Natalie: To specifically...
- Mr. Smith: specifically...
- Natalie: To specifically restate the question?
- Mr. Smith: Yeah. Somehow specifically restate the question in the thesis. That's usually a good way to start.
15. Natalie: Hmm. (*slowly writing*) "The-metaphor-of-Macbeth's-actions-is-a-lion." But how do you—see that's not really your thesis.

Mr. Smith's attempt to jumpstart the group's thinking about the construction of thesis statements by reminding them about writing timed essays in response to a prompt dovetailed with the group's tendency toward formulaic approaches toward writing. Elizabeth's comment at the end of the group's discussion illustrated her own recognition of the formula for writing effectively in this genre:

1. Mr. Smith: Alright, have you decided how to break it up?
- Natalie: Yeah.
- Elizabeth: I started working on the bodies.

- Natalie: I'm working on the intro, she's working on one of the bodies he's doing conclusion and then I'm probably gonna end up doing another body.
5. Mr. Smith: I don't know if you can be working (????).
- Natalie: Yeah you can.
- Elizabeth: You just re-state the thesis.
- Natalie: We kinda just talked about what all we want to talk about.
- Mr. Smith: Ok. See what you can do then. (*walks away from the group*)
10. Elizabeth: Explain his lionish qualities. Add some fluff and you're done. I think Mr. Smith thinks that this takes a lot more thinking than it really does. It's doing Mr. Smith, it's not thinking.
- Natalie: Huh?
- Elizabeth: It's not thinking Mr. Smith, it's doing. Thinking does not get words on here. (*eating*) These are the best chips in the entire world.

Students' work on this collaborative unimodal project was framed discursively in this small group as something that was "done" rather than "thought about" because of the structure that Elizabeth, Mike, and Natalie have ascribed to writing. Writing was something that could be accomplished without thinking by knowing what the structure must resemble and focusing on the form rather than the content of what was being constructed. As a result, much of the metatalk that characterized this small group's conversation dealt with identifying ways in which the group's ideas could conform to the structure of a typical five (or four-)-paragraph essay.

The group's final product functioned in many ways as a summary report of all of the ways in which Macbeth might be considered a lion (see Appendix L). The opening paragraph of the group's essay, "As Fierce as a Lion" read:

What does one think of when they think of a lion? An animal that's fierce, wild, scary, and violent? Many people would agree with those characteristics, which is why the lion has often been referred to as "King of the Jungle." The play Macbeth, by Shakespeare, tells the story of a Scottish thane who becomes overridden by his ambitions to become king. When Macbeth manages to become king, he and his wife rule the kingdom through scandals, violence, and the impression that nobody will ever find out the means they used to achieve their dreams. Many of Macbeth's characteristics are comparable to that of the powerful lion. The metaphor, Macbeth is a lion, describes his actions and thoughts throughout the play because it depicts the actions of Macbeth and his wife. (Appendix L)

Readily noticeable in the above paragraph is the group's use of a rhetorical question to "hook" the reader. The thesis statement is the final sentence of the opening paragraph—another often-cited "rule" that some students learn belongs to the genre of expository writing (Rex & Schiller, 2009). The thesis statement is not constructed in such a way that would allow students to develop a line of reasoning or construct an argument with their text, however. The set up of this thesis statement is such that one could only provide a book report of sorts in order to address the thesis and "depict Macbeth's and Lady Macbeth's actions." For these students whose discourse had revealed their capacity to think critically, such a task has, indeed, become an exercise in "doing."

Summary of unimodal small group talk in cycle 1

The findings presented in this section suggest that the small group collaborative activity in the unimodal condition both provided and constrained learning opportunities for students. Although

the task promoted students' dialogic interaction—even if only for a limited amount of time—the final written products were less a result of collaboration, but, instead resembled the *combination* of individuals thinking and writing separately (see Appendix L). A close analysis of the metatalk that occurred during the focal group's conversation revealed a clustering of metatalk codes that preceded another cluster of intersubjectivity codes. In other words, students in this small group did not integrate their ideas about the text into their talk about how they would go about accomplishing the task, and, perhaps most importantly, how their ideas about the text related to their collective goal for completing the task. The lack of goal formation codes might account for this seeming disconnect between students' understanding of the text and their success in using that knowledge to address the interpretive questions that were posed on the task sheet. Thus, understanding the nature of the semiotic mediation that occurred during this small group discussion illuminated some of the ways in which students' learning was facilitated by their collaborative metatalk about the text, but failed to be optimized because of a lack of integration with other aspects of semiotic mediation (e.g., intersubjectivity and goal formation) during this activity.

The written product that resulted from the unimodal focal group's collaboration was rigidly constructed to fit the form of a four- or five-paragraph essay (e.g., Appendix L). The small group's essay summarized information that was either stated in the text or articulated in class by Mr. Smith. Although the task was student-centered and open-ended in its nature, students in the unimodal condition often imposed structures that inhibited extended interpretations of *Macbeth* by seeking consistently the approval of their ideas by Mr. Smith and forcing their ideas into traditional expository writing paradigms that students perceived as an

opportunity to rehash elements of the plot rather than extending or transforming the *meaning* of some of those plot elements.

4.3.1.2 Cycle 1 multimodal small group talk

Small group talk among students in the multimodal instructional condition was characterized by group members' intersubjective talk to make sense of the task they undertook during their collaborative activities. An overview of the characteristics of the small group talk in the multimodal condition is provided in Table 7. Four small groups engaged in completing multimodal projects on *Macbeth* for which students received one hour to plan, construct, and turn in their final products.

I coded the transcripts from these small groups for aspects of semiotic mediation (i.e., metatalk, intersubjectivity, and goal formation). As was the case in the unimodal condition, the talking turns that were not coded for aspects of semiotic mediation were not explicitly related to the task at hand. So, for more than half of the multimodal focal group's small group discussion, students were talking about issues not directly related to the completion of the task. Approximately 10% of every small group discussion in this condition was taken up by talking turns by non-members who interjected comments during the small groups' conversations.

Table 7 also provides the general characteristics of the small group discussions that took place in the multimodal condition. The conversations in the multimodal focal group (20.2%) and Sapphire's group (14.8%) included more talking turns that were coded as "metatalk" than Kevin's group (3.1%) or Nathan's group (2.8%). Kevin's group was also characterized by non-coded turns 78.2% of the time, whereas other multimodal small groups' non-coded talk ranged between 43% (Sapphire's group) and 59% (multimodal focal group). Based on the importance of the metatalk code in the unimodal small group discussions, these percentages suggested that the

multimodal focal group and Sapphire’s group might have held the most promise for productive collaborations.

Since the multimodal activity was a new type of instructional task for many students, it was not surprising that most turns at talk across all small groups (except for the focal group) were coded for intersubjectivity as members tried to figure out how they could go about completing the task most efficaciously (Table 7). Tables 11-14 provide more sensitive information about the nature of this talk within each group. For the focal group, each member engaged most in metatalk turns, followed by intersubjectivity turns, and finally, goal formation codes (Table 11). Such a balanced distribution across codes was not evident in any other multimodal small group. For Kevin’s group (Table 12), Nathan’s group (Table 13), and Sapphire’s group (Table 14), for example, all group members’ mediating talk was coded more often for intersubjectivity than for any other code. Furthermore, Kelvin was the only group member in Sapphire’s group who took any talking turns that were coded as goal formation (Table 14) while Kevin was the only group member in his group who talked at all about how the group’s goal for the task might be achieved (Table 12). These data suggested a pattern of collaboration among multimodal group members that was not evident in the focal group’s interaction presented below.

Table 11. Cycle 1 Multimodal Focal Group Discussion Characteristics: Leonard, Louise, and Nick

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Leonard	179	36.8	115	64.2	47	26.3	17	9.5	14	7.8
Louise	161	33.1	116	72.0	29	18.0	15	9.3	3	1.9
Nick	82	16.9	55	67.1	22	26.8	4	4.9	2	2.4
Mr. Smith	46	9.5	--	--	--	--	--	--	--	--
Others	18	3.7	--	--	--	--	--	--	--	--
Total	486	100	286	58.8	98	20.2	36	7.4	19	3.9

Table 12. Cycle 1 Multimodal Small Group Discussion Characteristics: Kevin, Hannah, and Ian

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Kevin	230	39.9	197	85.7	11	4.8	19	8.3	3	1.3
Hannah	244	42.3	217	88.9	4	1.6	23	9.4	0	0.0
Ian	49	8.5	37	75.5	3	6.1	9	18.4	0	0.0
Mr. Smith	16	2.8	--	--	--	--	--	--	--	--
Others	38	6.6	--	--	--	--	--	--	--	--
Total	577	100	451	78.2	18	3.1	51	8.8	3	0.5

Table 13. Cycle 1 Multimodal Small Group Discussion Characteristics: Nathan, Riley, and Nelson

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Nathan	120	37.7	85	70.8	3	2.5	31	25.8	1	0.8
Riley	103	32.4	67	65.0	0	0.0	36	35.0	0	0.0
Nelson	62	19.5	33	53.2	6	9.7	22	35.5	1	1.6
Mr. Smith	19	6.0	--	--	--	--	--	--	--	--
Others	14	4.4	--	--	--	--	--	--	--	--
Total	318	100	185	58.2	9	2.8	89	28.0	2	0.6

Table 14. Cycle 1 Multimodal Small Group Discussion Characteristics: Sapphire, Adam, Kelvin, and Tom

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Sapphire	26	16.8	17	65.4	2	7.7	7	26.9	0	0.0
Adam	43	27.7	23	53.5	4	9.3	16	37.2	0	0.0
Kelvin	22	14.2	6	27.3	5	22.7	9	40.9	2	9.1
Tom	49	31.6	20	40.8	12	24.5	17	34.7	0	0.0
Mr. Smith	9	5.8	--	--	--	--	--	--	--	--
Others	6	3.9	--	--	--	--	--	--	--	--
Total	155	100	66	42.6	23	14.8	49	31.6	2	1.3

These descriptive statistics guided my analysis of the focal group's talk and final collaborative project. Discourse analyses of talk in which there was a diverse representation among semiotic mediation codes (i.e., clusters of turns that included metatalk, intersubjectivity, and goal formation) corresponded to those moments during the focal group's discussion in which the project idea was articulated. The following excerpts from the multimodal focal group represent some of the high points in which meaning was being negotiated during the discussion.

Cycle 1 focal group: Leonard, Louise, and Nick

A representative question that drove the discussion in the multimodal focal group was: "How can we best represent our ideas?" This question was unique among all groups and distinguished the talk that occurred in this small group in several ways. First, everyone in the group made significant meaningful contributions during the discussion. Codes for semiotic mediation were also distributed across all categories. Roughly, for every 5 metatalk codes, there were two codes for intersubjectivity and one code for goal formation. This distribution among the codes was important because it reflected a focus on meaning in the text (20% metatalk), with an appropriate amount of consideration given to how the group would go about completing the task (7% intersubjectivity), along with more turns in this condition that were allocated for student talk that represented how students connected their work with their goals for the task (4%) (see Table 11).

Focal students (Leonard, Louise, and Nick) in the multimodal condition mediated their interpretations of the text through small group dialogue by (a) pushing each other to think about the text in different ways as they completed their projects, and (b) actively deliberating meanings based on the text. Students realized and transformed their own and each other's thinking through speaking. In the excerpt below, students grappled with making new meaning about the text as

evidenced by their false starts (turn 5), rethinking of ideas (turns 5, 7, and 8), authentic questions about the text (turn 8), and internalized discourse norms (turn 10):

1. Louise: Okay. What is Macbeth's tragic flaw? I would say greed.
Nick: Greed and a weak heart.
Louise: *(to Leonard)* What do you think?
Leonard: I'm trying to think of this word right now...Gullible.
5. Louise: Why would it be, oh yeah, that would be...
Leonard: That would be key. Because of the three witches, that's why he's gullible. Because of the three witches—that's why he did everything.
Louise: I could see that. But I could also see but even if he was gullible, greed is one of the reasons, you know. There's a lot of 'em we could probably do.
Leonard: I wonder if we could do something about gullible turning into greed or like something like that.
Louise: You probably could, just, I mean, probably.
10. Leonard: *(whispering)* How is that tied together, though?

During this brainstorming session, the focal students engaged in multiple perspectives (turn 7), valued each person's contribution (turn 3), and attempted to synthesize the information meaningfully (turn 10). This open-ended conversation about a relatively straightforward question was distinct from the groups in the unimodal condition who treated the question "What is Macbeth's tragic flaw?" as if it had only one correct answer—the answer that Mr. Smith had brought up during class (i.e., Macbeth's overreaching ambition). In this case, however, students

considered Macbeth's tragic flaw using their own language ("greed," "weak heart," "gullible") and approached the question as if it were being asked for the first time.

In terms of the semiotic mediation that occurred during the above excerpt, metatalk codes characterized turns 1-7 as students deconstructed various aspects of the text. In turns 8 and 9, Leonard and Louise made intersubjective moves before Leonard's final utterance in turn 10, which was coded as both "metatalk" as well as "goal formation." Such a sequencing of mediation may characterize small group talk that facilitates students' dialogic engagement.

In the following extended excerpt, students actively co-constructed the meaning that they were making in response to their chosen prompt. Important to notice in this excerpt are the non-linguistic ways in which students communicated meaning to one another (turns, 4, 6, 7, 11, 16, 17, 20, 24, 26, 27). Leonard connected (turn 3) the small group's consideration of overreaching ambition as a theme to explore in the text with the group's earlier talk about the complementary forces of greed and gullibility evidenced by Macbeth's actions in the play (turns 7 and 8 above). It is also worth pointing out as a distinctive feature of this group's collaboration, the relatively brief and playful nature of the non-coded turns at talk (turns 12, 13, and 15). When some of the other small groups engaged in talk that was not coded for aspects of semiotic mediation, it often took the group away from focusing on the project for extended intervals of time. Leonard, Louise, and Nick, on the other hand, were relatively adept at refocusing their efforts without veering too far from the academic topic at hand. In this section, the focal students, in effect, imagined and acted out the scene that they eventually created (see Figure 1):

1. Leonard: "Construct something using the material provided to you that captures the theme of *Macbeth*." We should do over, over achieving...

- Nick: Overreaching ambition?
- Leonard: Yeah that one. That would tie in with the gullible thing.
- Louise: He's like held to a tree and like ahhh (*stretches her right arm up and out while her left arm stretches down and back*).
5. Leonard: With a crown, actually. That'd be pretty (cool?).
- Louise: Yeah, just like (*repeats the gesture described above and stretches her right arm up and out while her left arm stretches down and back*).
- Leonard: Or, like have his head in this arm (*signals toward Louise's left arm*). Could you draw that?
- Louise: Yeah I could.
- Leonard: Then do it.
10. Louise: (*shrugs shoulders*) Geet it!
- Nick: (*reaches his right hand upward*) I could sort of see a shadow coming in and overreaching like that=
- Louise: =Shut your mouth. Just kidding. We want your input.
- Leonard: Oh my god, wait a second.
- Nick: It's like the crown=
15. Leonard: =Actually we don't want your input.
- Nick: =with a white outline (*shapes his hands as if he were holding a crown and raises his hands upward*) and with like shadows and it's leaning on him (*brings both hands down to the desk*). And he's sitting there tryin' to reach for it (*raises right hand upward,*

grasping). As you're looking at...I don't know. It's a real vivid picture in my head.

Leonard: Can we kinda do like a before and after thing? Is it possible for you to do that? To tie in gullible and greed. We can have like a before thing, (*sketches a rough scene on a piece of paper in front of him*) before the three witches telling him what he wants to hear.

Louise: (*laughing*) That is a beautiful drawing.

Leonard: I'd figure I'd make it even more interesting. I thought you were about to add to it. I saw your pencil, and I was like "Get out of here." But then there's that and then after you could do your part where the dude is holding the other dude's head, trying to reach the crown.

20. Louise: I don't know. I think if we just did that that would just be like before and after could show like deep, like I don't know. It's just real like. Like it makes sense, but I think we should do like that (*gestures with arms outstretched in front of her and behind her*).

Leonard: But it kinda brings in like the play as it is, like the play as a whole. Because it is about Macbeth taking what they say to become king. And then it also ties in both of our tragic flaws that we think he had.

Louise: Alright.

Nick: Shouldn't you have like a bunch of bodies around him, like since he killed a bunch of people.

- Leonard: He has a dude's head in his hand (*holds up an imaginary head in his left hand*).
25. Nick: I'm just sayin'
- Louise: (*holds her own imaginary head in her left hand and leans her head to the left as if to say "Look at what I've got."*)
- Leonard: That's my point. You gotta have 'em like this (*pretends to hang himself*) with his tongue like (*tongue falling out of his mouth*).
- Louise: I love that.

This extended passage revealed a deep engagement with understanding and interpreting the text. Students grappled with the ways with which they might represent both an overarching theme in the play as well as how they might create non-linguistic meaning through their talk about visual symbols (turns 4-6), shadows (turn 16), and spatial arrangement (turn 17). Students' end product (Figure 1) represented the meaning that they have made about the theme of *Macbeth* that was not constrained by what the students believed belonged to the "rules" of the visual mode. That is, students were free to engage each other and the text in order to generate otherwise unavailable meaning in the single mode of the text.



Figure 1. Cycle 1 Multimodal Focal Group Project: Leonard, Louise, and Nick

Although most of the turns during the extended passage above were coded as metatalk, turns 7 (“Or, like have his head in this arm (*signals toward Louise’s left arm*). Could you draw that?”) and 17 (“Can we kinda do like a before and after thing? Is it possible for you to do that? To tie in gullible and greed. We can have like a before thing, (*sketches a rough scene on a piece of paper in front of him*) before the three witches telling him what he wants to hear.”) represented important intersubjective moves while turns 20 (“I don’t know. I think if we just did that that would just be like before and after could show like deep, like I don’t know. It’s just real like. Like it makes sense, but I think we should do like that [*gestures with arms outstretched in front of her and behind her*]”) and 21 (“But it kinda brings in like the play as it is, like the play as a whole. Because it is about Macbeth taking what they say to become king. And then it also ties in both of our tragic flaws that we think he had”) provided critical goal formation moves. Thus, the

above excerpt resembled the overall pattern for semiotic mediation in the multimodal focal group in which group members focused primarily on the text, but frequently revisited how their collaborative work could be accomplished and how that work could lead to achieving the group's goal for the task.

The quality of the final product reflected the quality of the talk that occurred during this small group collaborative effort (see Figure 1). On the left hand side of the painting, the three witches look on as Macbeth reaches for the king's crown, holding in his other hand, the head of slain King Duncan. The figure of Macbeth is surrounded by darkness; Macbeth stands upon those he killed to reach the "light of the crown." The brushstrokes of the painting sweep downward, representing, perhaps, the "fall" of the tragic hero from light to darkness. This painting illustrates how students in the multimodal focal group transmediated meanings from the linguistic system of the text to the visual system of the painting. The end product provided a meaning that did not exist in the linguistic system of the text alone.

Summary of multimodal small group talk in cycle 1

The findings presented in this section suggested that the small group collaborative activity in the multimodal condition extended some students' interpretation of the text, while, for others the logistical aspects of the task precluded students from engaging in meaningful metatalk about the text. For example, Figures 1, 2, and 3 all function as examples of generative transmediation—students' creation of meaning in one sign system that was potentially unavailable in the original sign system. With the exception of the painting made by Kevin, Hannah, and Ian (Figure 4), all of the multimodal products represented meanings that were not available in the linguistic mode only.



Figure 2. Cycle 1 Multimodal Project: Riley, Nathan, and Nelson



Figure 3. Cycle 1 Multimodal Project: Sapphire, Adam, Kelvin, and Tom

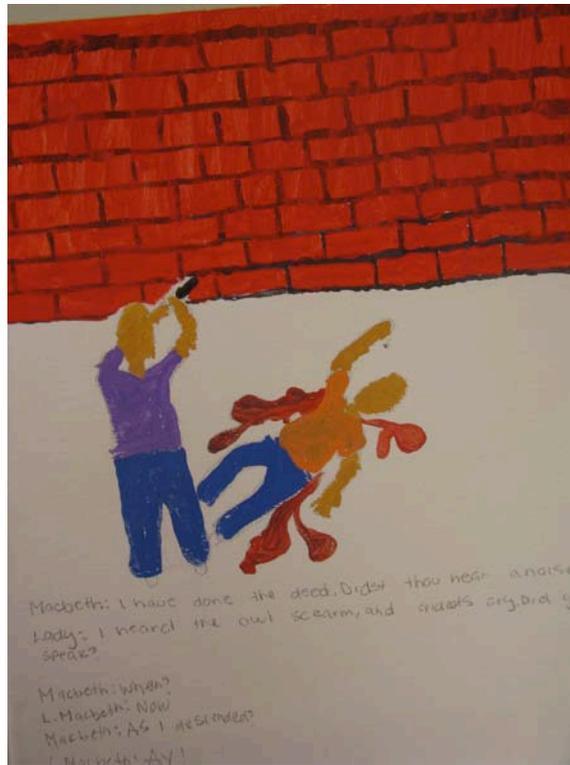


Figure 4. Cycle 1 Multimodal Project: Kevin, Hannah, and Ian

The group talk that accompanied the construction of these multimodal products was most successful when the talk most explicitly explored aspects of the text (metatalk) while talk about the steps that the group would take to complete the project (intersubjectivity) and accomplish the goals of the task (goal formation) supported the group members' thinking about the text from different perspectives. The multimodal focal group (Leonard, Louise, and Nick) was the only small group whose talk could be characterized in such a way. Other groups engaged extensively in talk about their social lives (Kevin, Hannah, and Ian) or in talk about the logistical and practical aspects of constructing the multimodal product (Saphire, Adam, Kelvin, and Tom; Nathan, Riley, and Nelson) to the extent that the group did not engage in extended talk about the *meaning* of the text.

4.3.1.3 Comparing unimodal and multimodal small group work in cycle 1

The most salient difference between the kind of talk that occurred between small groups in both conditions during cycle 1 was the following: task-relevant talk among students in the unimodal small groups was characterized by the metatalk code, whereas task-relevant talk among students in the multimodal small groups was characterized by the intersubjectivity code (see Table 7). This difference manifested itself in students in the unimodal condition talking about the ways in which their talk about the text could fit into the structure of a familiar written genre. Student talk in the multimodal condition dealt primarily with figuring out how students could complete the projects using the materials provided to them. Interestingly, the multimodal focal group exhibited talk that was also characterized by high levels of the metatalk code.

Talk among the small groups that had the highest percentages of non-coded talking turns in both conditions was characterized by less than 10% of mediating talk coded as metatalk, less than 1% of mediating talk coded as goal formation, and products that included direct quotations from Mr. Smith and disconnected sections of writing in the unimodal condition (Josh, Alan, and Nathan's small group in Appendix K) and literal transmediations in the multimodal condition (Kevin, Hannah, and Ian's small group in Figure 4). Although relatively high percentages of the metatalk code characterized both focal group discussions, the unimodal focal group exhibited clusters of each code for semiotic mediation in isolation, whereas the multimodal focal group exhibited clusters of integrated codes for semiotic mediation. Thus, the most dialogic small group discussions consisted of an integrated distribution of codes for semiotic mediation and high percentages of the metatalk code.

4.3.2 Cycle 1 whole class discussions

In this section, I address the research question, “Is the nature and quality of discussions distinct (and if so, how?) between a class in which students previously engage in a collaborative multimodal activity and one in which they previously engage in a collaborative unimodal activity?”

4.3.2.1 Multimodal and unimodal whole class discussion discourse analysis in cycle 1

The whole class discussion of *Macbeth* in the multimodal condition was distinct from both the baseline multimodal whole class discussion of *Grendel* as well as the cycle 1 unimodal whole class discussion of *Macbeth*. Specifically, the multimodal whole class discussion of *Macbeth* during cycle 1 was characterized by increases in the amount of students’ interpretations of the text; fewer monologic discourse codes; longer, extended turns at talk; and decreased teacher involvement in the form of question-asking and length of talking turn (see Tables 15-17). Taken together, these data suggest that students in the multimodal condition, during their whole class discussion of *Macbeth*, engaged dialogically with each other about the text.

As illustrated in Table 15, students in the multimodal condition elaborated on their responses, took more perspectives and explored possibilities within the text, made utterances that built up the classroom culture, and took up previous students’ responses to extend or deepen discussion more frequently than did students in the unimodal condition. Students in both conditions posed approximately the same number of questions about the text and challenged ideas that students came up with at the same rate. However, students in the unimodal condition made more intertextual references, provided more unelaborated responses, posed more unconstructive challenges, and engaged in more instances of non-coded talking turns than did

students in the multimodal condition. Inter-rater reliability for student and teacher discourse codes was established at the level of .70.

Table 15. Number of Student Moves During Cycle 1 Discussion by Condition

Coding Categories	Unimodal	Multimodal
Extension/Elaboration	26	36
Perspective Taking	4	12
Student-Generated Question	5	10
Uptake	5	14
Challenge	5	5
Collaborative Classroom Culture	2	8
Intertextual Reference	14	7
Evidence Source—Inference	18	34
Evidence Source—Prior Knowledge	23	11
Evidence Source—Text	9	22
Reasoning—Character	15	27
Reasoning—Event	5	21
Reasoning—Hypothetical	9	11
Reasoning—Personal	20	9
Unconstructive Challenge	3	1
Unelaborated Response	34	27
No Code/Off Task	36	10

Two additional layers of coding were applied to characterize students’ participation in this whole class discussion. Using the coding scheme established by Keefer et al. (2000) to examine the nature of student-led dialogue, every student turn was also coded for the (a) source of evidence used to support students’ responses (e.g., inference, prior knowledge, or text), and (b) the type of reasoning employed during each student’s response (e.g., character, event, hypothetical, language, or personal). Table 15 presents the findings for this layer of analysis. Inter-rater reliability for evidence-source codes was 0.73. Inter-rater reliability for reasoning-type codes was 0.70.

Students’ responses in the multimodal condition were characterized primarily by (a) inferences—the use of evidence from the text to support an interpretation about the meaning of

the text—(34 talking turns), followed by (b) the text—the use of events in the text to support a response during discussion, but not necessarily an interpretation about the meaning of the text—(22 turns) and (c) prior knowledge (11 turns) during the whole class discussion of *Macbeth*. Students reasoned through their responses during this whole class discussion through character analyses (27 turns), events that occurred in the text (21 turns), hypothetical situations that did not occur in the text (11 turns), the author’s use of language (1 turn), and personal feelings toward the actions described in the text (9 turns).

Students in the unimodal condition drew primarily on their prior knowledge about life, specifically their understanding of how humans are motivated (23 talking turns), to support their responses during the whole class discussion. Unimodal condition students used approximately half as many inferences (18 turns) to support their responses, as did participants in the multimodal condition (34 turns). Distinctions between the two class conditions also existed when it came to how students reasoned through their responses. Students in the unimodal condition provided fewer reasons based on characters (15 turns), events in the text (5 turns), or hypothetical situations (9 turns) than students in the multimodal condition. Students in the unimodal condition used more personal examples (20 turns), however, to provide reasons for their responses. Since the questions planned for each condition were the same, and since these questions were crafted to promote students’ uses of all three types of evidence as well as all five types of reasoning, differences that emerged between the two conditions revealed differences in the way in which students engaged in discussion around these questions. Students who used inferences to support their claims combined both evidence from the text as well as their prior knowledge to forward their ideas. Thus, inferences represented students’ syntheses of both the text and their prior understanding to advance an interpretation about the meaning of the play. In

terms of the reasoning code, students who justified their ideas based on events, characters, or the language of the text made interpretations of the text, whereas students who reasoned through a question with hypothetical examples or personal experiences did not necessarily draw on the text for support. Thus, students in the multimodal condition engaged in more interpretive discussion practices than did the students in the unimodal condition.

The following passage, taken from the unimodal group's whole class discussion of *Macbeth*, provides an example of one type of talk that characterized this discussion (intertextual student responses based on students' prior knowledge that were supported by personal reasons):

1. Mr. Smith: What about the theme of overreaching ambition? How does that idea, that theme in the play connect Macbeth to other tragic heroes? Mike?
Mike: (*rubbing his eyes as if he were awakening*) How that connects to other tragic heroes? Alright, can I compare him to whoever I want?
Mr. Smith: As long as you think we'll all know it.
Mike: Scarface.
5. Mr. Smith: Explain that story to us.
Mike: Alright. You don't really need to know what he does, but it starts out, he's kind of like a nobody. Someone gives him a chance at a job and he starts to make a little bit of money. But instead of being happy where he is, he wants like the girl and more money, big house, and everything bigger. He kinda like takes over his boss's business. Almost like Macbeth, the guy kills off his boss and takes

over. And then everybody gets mad at him because he's not doing things the way the old boss used to. So it just makes everyone mad.

Luke: (to Mike) What about *American Gangster*?

Mike: That too.

Luke: Yeah.

10. Mr. Smith: So how is that a theme that connects tragic heroes in general through ambition?

Mike: 'Cause it can like ruin a lot of people. It's one thing to want to go far in life, it's another thing to like be greedy and take more than you need.

Luke: But, uh, I think other tragic heroes, though, like, in some people's mind, they're like good people. Like, for example, in like *American Gangster*, like, the dude Frank Lucas, he was doing like illegal things, but he was like also helping out his family and the community with other things.

Mike: Yeah, even with the whole drug thing, he made lots of money, but on Thanksgiving he was on his way with a truckload of turkeys to help out people and=

Luke: =Yeah, yeah=

15. Mike: so...

Josh: Another tragic hero in my opinion would be Harvey Dent,

otherwise known as Two-Face in the movie *Batman: The Dark Knight*. How it kinda connects to...he was district attorney, which is a higher position than normal, and then=

Mike: =Who are you talking about?

Josh: Harvey Dent.

Mike: *(nodding their heads in affirmation)* Oh, yeah.

20. Josh: He suffers because he loses his girlfriend and the side of his face and then he turns evil.

Mr. Smith: How does that connect to one of the themes of this play?

Josh: Could I say order versus disorder 'cause when in his downfall he goes around and tries to create disorder and chaos=

Mike: =Who?

Josh: Harvey Dent.

25. Mike: He doesn't try to; he gives 'em chances. He was fair—heads or tails *(pretends to flip a coin in the air)*

Josh: No.

David: One side got burned

Mike: Yeah, one side got scratched up and the other one's not. So the scratched side is tails and the heads is the other. When you get tails, you die. *(speaking over David and Josh who are attempting to gain the floor)* You said like there was no order, like we did nothing but good in the world, and the woman still died, so there is no like real order. The only thing that's ordered in this world is

fair. Heads or tails, like a fifty-fifty chance, that's the only thing that's fair.

Mr. Smith: (*sighs*) Okay. Alright.

Intertextuality has the potential to promote students' literacy learning (Bloome et al., 2005; Shuart-Faris & Bloome, 2004). However, despite Mr. Smith's repeated attempts (turns 1, 10, and 21) to connect students' intertextual responses with the topic of the class discussion, students continued to explore the other text (turns 12, 13, 16, 20, 27, and 28) rather than potential connections between the two texts. These attempts by Mr. Smith were captured in the "revoicing/accountable talk" code in Table 16. Mr. Smith tried to facilitate students' connections of ideas across texts 18 times during period 2, but only made this move 1 time during period 3. In turn 5, Mr. Smith invited Mike to explore the ways in which Scarface might connect to *Macbeth*, but by turn 29, Mr. Smith seemed to give up exploring this potential connection since the discussion that occurred between these two talking turns did not articulate a clear connection between these two characters.

Table 16. Number of Teacher Moves During Cycle 1 Discussion by Condition

Coding Categories	Unimodal	Multimodal
Revoicing/Accountable Talk	18	1
Uptake	1	2
Scaffolding	3	5
Establishing Discourse Norms	12	11
Just in Time Information	2	4
Using Student Knowledge	1	0
Modeling	1	1
Providing Information	6	2
Repeating Question	3	2
Evaluation	0	1
Display Question	1	0
No Code	9	6

To contrast the discussion in the unimodal condition, the following excerpt represents the type of talk that characterized the multimodal group's whole class discussion of *Macbeth*. Important to note during this section of the discussion are the following characteristics: (a) Mr. Smith's single question and relative absence from the discourse (turn 1); (b) the length of Leonard's initial response (turn 2); and (c) students' heavy lifting, that is, students co-constructing their interpretive responses by drawing on textual evidence and providing reasons based on inferences (turns 5, 8, 13, and 14).

1. Mr. Smith: So take a minute here and think about the other themes, overreaching ambition, gender roles, virtue versus evil, reason versus passion—see if you can use any of those to talk about why *Macbeth* connects to being a tragic hero as well. If you have other examples of other tragic heroes that might connect, maybe you could try to help us understand that as well.

Leonard: I had overreaching ambition. In the beginning, he like killed one, you know, the king and all that, and after a while, he knew that in order to become king, since the king is dead, it will go down the line. And since, like, those two fled, he put himself into the greatest position to become king, and from there he knew he had to do other things. . . .So, in the beginning, he was fine and everything like that. And then he committed one killing, and after that he just kept kinda going with it and having more killings and more killings. He kinda went crazy with it. 'cause he kinda started freaking out, because how he had someone sent to kill Macduff,

but instead they killed the son and the mother. You know, that's just saying that he's panicking. He didn't just go for men in the line of kings; he went for anyone around him.

Thomas: Didn't he kill Macduff's son because Macduff went to England?

Nate: He killed the guards, too. I totally forgot about that. He killed the guards, too. They were innocent.

5. Leonard: He killed the king before. He had to do that so that no one would see it.

Tony: Why didn't he just sneak up behind them and knock 'em out?

Brad: He tried to.

Leonard: He couldn't take the risk of that=

Louise: =Yeah, I mean people can connect the dots easily, like=

10. Tony: =I'll (leave) the dots.

Louise: Alright.

Leonard: But what if you just knock 'em out, and by the time you're done killing someone then, and plus, if he did not kill those guards the way he did it...

Louise: There wouldn't have been anyone to blame the murder on.

Leonard: Exactly. It would have just been the murder of Duncan and like a ghost did it or something like that. He had to kill the guards in order to frame the guards for the murder. He couldn't have just knocked them out and framed them for it.

In this excerpt, Mr. Smith invited students to consider the ways in which some of the themes that they had identified as a class in *Macbeth* might connect to Macbeth's status as a tragic hero. Rather than asking students multiple leading questions and completing most of the interpretive work around the text as he did in the excerpt from the baseline discussion, Mr. Smith structured his invitation to inquiry in such a way so that it would be difficult for students to respond with only one word. Instead, as Leonard demonstrated in turn 2, students were asked to think about the interpretive possibilities that existed within the text that could support or challenge Macbeth's status as a tragic hero.

Leonard's response in turn 2 illustrated the value of semiotic mediation. First, Leonard began his response by identifying the theme that he had been working with in his small group during their multimodal project ("overreaching ambition"). He described how Macbeth's life unraveled before him after he committed the act of killing the king. As Leonard continued to speak, however, he made a new interpretation about Macbeth—"he's panicking"—which had, in effect, connected the theme of overreaching ambition with a useful description of the behavior of the tragic hero. Thus, Leonard's talk about the text mediated his thinking about the character of Macbeth to the extent that he recognized the role of panic in order to explain Macbeth's behavior in the text.

Perhaps most interesting about this excerpt, however, was the way in which it "sparked" other students' "interests" who may have had a less thorough understanding of the text than Leonard did, to begin to explicate particular passages from *Macbeth*. Thomas asked a question about the text, which did not require an inference in order to be answered (line 3). That is, the text supplied the answer to this question because it was basic stated information (Hillocks & Ludlow, 1984). Nate, who provided two entire turns at talk during all 4 whole class discussions

that I observed, realized that Macbeth had slaughtered people—the king’s guards—who were entirely “innocent” (line 4). This prompted a series of exchanges about Macbeth’s alternatives to killing the guards (lines 6, 7 8, 12) before the ultimate point was reached: Macbeth had to kill the guards and not simply injure them because he needed to set up the scene to make it look as if the guards had actually killed the king (turns 13 and 14). Students’ interactions during this dialogic spell illustrated how discussion mediated thinking and had a “real world value” for some students who might not have previously held an interest in literature—a primary goal for Mr. Smith at the beginning of the semester.

Students in the multimodal condition made 70 interpretations of *Macbeth* during a 30-minute discussion (see Table 17). This number exceeded both the number of interpretations these students made in their baseline discussion (58) as well as the number of interpretations that students made in the unimodal discussion of *Macbeth* (52). Most illustrative of the distinct nature of the multimodal group’s whole class discussion was the average length of students’ turns at talk. Student turns in the multimodal condition averaged 30.8 words per turn, whereas students in the unimodal condition averaged 16.7 words per turn. Turns at talk in the multimodal group were nearly twice as long as turns at talk in the unimodal group.

Table 17. Characteristics of Cycle 1 Discussion by Condition

Characteristics	Unimodal	Multimodal
Total number of pre-planned discussion questions	5	5
Total number of questions posed by the teacher	30	25
Total number of student interpretations	52	70
Total number of student turns at talk	133	130
Total number of teacher turns at talk	59	49
Average length of teacher response (words/turn)	32.3	26.0
Average length of student response (words/turn)	16.7	30.8
Total number of dialogic spells during discussion	15	16

With this shift in the amount of language used for each student talking turn came a complementary shift in the amount of talk that the teacher engaged in with each turn. Mr. Smith's talking turns in the multimodal whole class discussion averaged 26.0 words per turn, while his talking turns in the unimodal whole class discussion averaged 32.3 words per turn. So, students in the multimodal condition during cycle 1 were speaking about as much (30.8 words/turn) as the teacher was speaking during the baseline discussions (31.7 words/turn in Period 2 and 33.2 words/turn in Period 3).

4.3.3 Connections across discourse contexts

In this final section, I address the third research question for this study: How does semiotic mediation and transmediation shape discussion and literary interpretation? I will provide an overview of the connections that existed across small group and whole class discussion contexts followed by an analysis of these connections from focal students in both connections.

4.3.3.1 Cycle 1 small group to whole class connections

To determine the ways in which students drew on the ideas that emerged in their small group discussions as they completed unimodal or multimodal projects during subsequent whole class discussions of literature, I isolated and reviewed each individual student's whole class discussion contribution and compared these contributions with students' task-relevant talk during their small group discussions (turns coded as metatalk, intersubjectivity, and goal formation). I identified 26 connections between student turns in their small groups and student turns in the whole class discussion setting. In some instances ideas that emerged from one small group

member were taken up by another small group member during the whole class discussion. These instances were also included in the total number of connections that I identified.

Table 18 displays the student name, small group affiliation, instructional condition, percentage of turns taken during small group discussion, percentage of task-relevant turns taken during the small group discussion, the percentage of turns taken during the whole class discussion, and the number of connections made during the whole class discussion of *Macbeth*. Six different students made connections between their small group discussions and the whole class discussion of the text that took place one day after their small group discussions. With the exception of Luke, the 5 most-frequent participants in the whole class discussion, (i.e., those participants who took the most number of turns during the discussion) all made connections between their small group discussions and the whole class discussion. All of those students who made connection-comments during the whole class discussion of *Macbeth* (Mike, Natalie, Leonard, Louise, Ian, and Riley) participated with high levels of task-relevant talk during their small group discussion. Although not all of these students spoke frequently during their small or large group discussions, their small group contributions frequently displayed aspects of semiotic mediation.

Table 18. Student Participation and Connection of Ideas Across Discourse Contexts in Cycle 1

Student	Group	Condition	Small Group Talking Turns (%)	Mediating Small Group Talking Turns (%)	Whole Class Talking Turns (%)	Connections
Elizabeth	UFG	U	38.8	36.5	2.3	0
Mike	UFG	U	12.6	29.4	34.6	1
Natalie	UFG	U	38.7	43.5	13.5	2
Eddie	EAL	U	27.4	21.2	3.8	0
Allison	EAL	U	21.6	25.0	0.0	0
Luke	EAL	U	39.0	41.5	21.1	0
Josh	JAN	U	12.1	40.6	0.0	0
Alan	JAN	U	40.5	13.0	0.0	0
Nathan	JAN	U	40.5	8.7	0.0	0
Leonard	MFG	M	36.8	43.6	21.5	12
Louise	MFG	M	33.1	29.2	23.1	5
Nick	MFG	M	16.9	34.1	2.3	0
Kevin	KHI	M	39.9	14.3	0.0	0
Hannah	KHI	M	42.3	11.1	0.0	0
Ian	KHI	M	8.5	24.5	7.7	5
Nathan	NRN	M	37.7	29.2	0.0	0
Riley	NRN	M	32.4	35.0	0.8	1
Nelson	NRN	M	19.5	46.8	1.5	0
Saphire	SAKT	M	16.8	34.6	0.8	0
Adam	SAKT	M	27.7	46.5	0.0	0
Kelvin	SAKT	M	14.2	72.7	0.0	0
Tom	SAKT	M	31.6	59.2	0.0	0

The descriptive statistics provided in Table 18 illustrate the complex dynamic involved in classroom discussions. Some students (e.g., Elizabeth, Josh, Nick, Riley, Nelson, Saphire, Adam, Kelvin, and Tom) participated intensively in their small group discussion, frequently mediating their thinking by talking about aspects of *Macbeth*, the task, and the group's goals involved in the task. These same students, however, did not participate vocally or offered less than 3% of all of the talking turns during the whole class discussion.

Perhaps the most compelling information that Table 18 provides can be found by comparing the number of students in each condition who provided connections between the

small group discussions and the whole class discussion. Twenty-three out of the total 26 connections that were made across these two discourse contexts were made by students in the multimodal instructional condition. In the next section, I analyze the nature of these connections within each focal group.

4.3.3.2 Unimodal focal group connections in cycle 1

Of the three connections that were made by members of the unimodal focal group, the following excerpt illustrates how students' small group talk in which the influence of Lady Macbeth was the subject of conversation informed Elizabeth's contribution to the whole class discussion of *Macbeth*:

1. Elizabeth: How do you kind of say that Lady Macbeth is like the mastermind behind it but she's not really the mastermind she's just the one who implemented him to do it. 'cause she doesn't actually come up with it. It's just like he tells her and she's like "Yeah." And then like freaks out and is like "do it." 'cause I was, several times throughout the play Shakespeare shows the audience that Lady Macbeth is...
Natalie: Is...a proud supporter of her husband.
Elizabeth: That makes her seem like an actual woman not like "do it." Lady Mac...I can't say that she's like...
Natalie: is the forceful.
5. Elizabeth: =at the root of the plans. . . .
Natalie: That's not quite what I wanted to say.
Elizabeth: Urging him to do it? Or, I can say influencing 'cause that doesn't

like kinda capture how forceful she is. Well, I could say forcing Macbeth to, to do the evil plan

Natalie: To be a man.

Elizabeth: (*softly*) Yeah. . . .Well men don't really act like that apparently.

Real men don't act like that (*laughs*). . . .Lady Macbeth is forcing Macbeth to do it by...how do you say like downgrading his manhood? By like...by...

10. Natalie: Holding him=

Elizabeth: =squashing his ego=

Natalie: =squashing his ego by not letting him kiss her? . . .

Elizabeth: Questioning his manhood. There we go.

Natalie: There you go! (*laughs*). . . .

15. Elizabeth: (*typing*) forces. Should I put forces in quotes, 'cause she doesn't actually like kick him out the door?

Natalie: (*laughs*) No...forces. (*typing*) forces. (*Mr. Smith approaches*)
We're debating the construction of the sentence.

Mr. Smith: Okay.

Elizabeth: To...crap I misspelled Macbeth.

Elizabeth and Natalie's deliberation of the "construction of the sentence" above provided these two unimodal focal students with the opportunity to make meaning from the text by identifying a way to characterize Lady Macbeth's and Macbeth's relationship using the text as the source of evidence for their ideas. Elizabeth's contribution during the whole class discussion of Macbeth below had its origin in the interaction reproduced above:

1. Mr. Smith: Okay, look back at this last question again. Theme. How do any of these themes connect back to what a tragic hero is? Or what he does? (*students writing, Mike and Luke are talking to each other. Mr. Smith walks over to them*) Take a minute to write about it, Mike. Or if you wrote about a theme yesterday, like overreaching ambitions, can you use that theme to characterize Macbeth? (*30 seconds elapse*) Based on your reading, based on what you understand, based on what you said yesterday...Elizabeth can you get us started?

Elizabeth: Um, I wrote about the reason versus passion, like, connecting it to a tragic hero always has a tragic flaw that leads to his demise. Well, he said it himself in one of his lines, that he needs to act on his feelings before he can think things through, which I guess goes hand-in-hand with overreaching ambition, because, he, in the moment, when he is very passionate about, like, killing someone to get ahead, or anything, he always acts on it before he can think it through, which, I guess, also leads him to say something which Lady Macbeth will say “If you don't do what your plan is, then you're not a man,” which, I guess, from the get-go, leads him to a downfall.

Mr. Smith: You pointed out his emotional responses overpowering some other judgment, that that's something that makes him a tragic hero. Anybody agree, or have other examples?

These two snapshots of classroom interactions presented two students in the first instance who engaged in a lively conversation about language and meanings in *Macbeth*. Trying to characterize precisely the appropriate way to describe Lady Macbeth's influence on Macbeth's actions was a compelling topic to explore. Eventually Natalie and Elizabeth arrived at the notion that Lady Macbeth caused Macbeth to "question his manhood." Interestingly, Natalie and Elizabeth seemed to switch the topic of conversation from metatalk to facilitate interpretive thinking to intersubjective talk that might characterize a more traditional classroom writing exercise when Mr. Smith approached their group (turn 16). Shortly thereafter the topic of the group's talk turned to mechanical/spell checking issues related to the group's essay (turn 18).

Elizabeth responded to Mr. Smith's question during the whole class discussion by drawing on the text to support her claim that the theme of overreaching ambition was related to the fact that "[Macbeth] needs to act on his feelings before he can think things through." Elizabeth finished her turn by taking up the idea that Lady Macbeth forced Macbeth to complete certain actions in order to maintain his "manhood," which was related to Macbeth's blind ambition: He followed Lady Macbeth's plan for action with disregard for whatever consequences it may have brought. The quotation, "If you don't do what your plan is, then you're not a man" from the whole class discussion excerpt above very closely resembled Elizabeth's exchange with Natalie during their small group discussion (turns 8-13).

However, this line of thinking was not explored further in the whole class discussion. Mr. Smith's revoicing of Elizabeth's response focused on the first half of Elizabeth's response rather than the latter half. The next student contribution came from Mike who made an intertextual reference to *Scarface* and the discussion took a different direction.

4.3.3.3 Multimodal focal group connections in cycle 1

Semiotic mediation and transmediation shaped discussion and literary interpretation by priming students' interpretive thinking and promoting students' participation in whole class discussions in the multimodal condition. Figure 5 displays two episodes that came out of the multimodal focal group's small group discussion.

Small Group Episode 1

Louise: Should they be around like a big cauldron?

Leonard: No, they're not in the first one they weren't.

Louise: What were they doing for the first one?

Leonard: They just meet period.

Louise: They're just meeting?

Leonard: It says like they meet in a place where (?) [...]

Louise: Where were they meeting in the first part?

Nick: In a creepy.

Leonard: No, straight, like plain, nothing, a tundra place.

Nick: But it was like foggy and like=

Leonard: =There was storms comin' and stuff or whatever and there was three people and then him.

Nick: =Yeah. And it's all like cloudy and eerie.

Louise: Weren't they on horses?

Leonard: Nope.

Small Group Episode 2

Leonard: Mr. Smith? Okay, I put “The witches know the prophecies are fake but make Macbeth believe him because...” what would be a word for like when you try to make you believe something that isn’t true but the way I say it makes you believe it? Like calling him into it (*extends left arm out and retracts left arm back toward his body*), but a different word?

Mr. Smith: Well, remember that specific word we talked about that goes with the play? Like...

Leonard: Is it in the fifth act?

Mr. Smith: It’s used in the fifth act.

Louise: It starts with an "e"?

Mr. Smith: Yeah.

Louise: I can't remember what it is, but I know it starts with an "e" though.

Leonard: Edgerdiction or something like that?

Mr. Smith: The word, what's the specific thing that they do, the way they speak, the words she speaks (??)

Louise: Oh my Jesus.

Leonard: Why do I keep wantin’ to say (dictation?)

Nick: What are some of the things they do? E? Enchant.

Mr. Smith: (*with text in hand*) Act 5, scene

Leonard: One

Mr. Smith: More like scene

Leonard: four.

Mr. Smith: seven.

Leonard: How many scenes are there in this one? Damn. (*leafing through Mr. Smith's text*) It’s before this.

Mr. Smith: Yeah, it’s before that.

Leonard: Equivocation.

Louise: That's the word! Equivocation.

Leonard: “Because of their equivocation.” Can I just put that?

Mr. Smith: Yep.

Nick: That's a big word. I don't even know what it means.

Leonard: (*without looking in any text*) The ability to make someone believe something false—a lie is another way to say it. Alright this is what I have. I'll slim it down, but this is just like the gist of it. If you want to add anything, go ahead.

Louise: No, that’s alright. I'm not really tryin’ too hard to make this like some masterpiece.

Nick: You coulda used deception there, too.

Figure 5. Cycle 1 Multimodal Focal Group Talk Prior to Whole Class Discussion

Students responded during the whole class discussion to the question, “Why does the success of Macbeth and Lady Macbeth—prophesied by the witches, promising the couple power and riches and ‘peace to all their nights and days to come’—why does their success of becoming king and queen turn so quickly to ashes, destroying their relationship, their world, and, finally, both of them?” Leonard’s contributions below can be traced to aspects of the small group conversation that were excerpted in Figure 5:

1. Ian: 'Cause they did it the wrong way, not the way it was supposed to be. It altered the path, like it altered everything that happened. So...
- Leonard: What the witches told him was true. All they did was tell him exactly what he wanted to hear. And the fact that they're witches and have the powers that they're believed to have was enough to encourage him to do it.
- Ian: The witches also said what would happen when he died, so how could it be true?
- Louise: They didn't lie to him=
5. Leonard: =They never said anything about him dying though, did they?
- Louise: They didn't lie to him, they just manipulated what they were saying. They just manipulated him by saying things
- Malcolm: (???)
- Louise: Yeah, like by saying things in a very vague way.
- Leonard: Cryptic messages. Like they made him believe a lie.
10. Louise: They weren't exactly lying to him.
- Leonard: That's kinda how it is, yeah.
- Louise: What they said was going to happen, they just changed it around for their own benefit. All of the things that happened were going to happen, they just...
- Malcolm: Stretched the truth.
- Louise: I guess you could say that. I don't even think they lied or stretched

the truth or anything. I just think they manipulated what they were saying to use him, but I don't think they actually lied.

15. Malcolm: (*half sarcastically?*) They exaggerated the truth.

Louise: Exaggerated would be a good word to use.

Leonard: Didn't the head say, "What have you done?" or whatever? Or "Why would you have done this?" Isn't that kinda like saying it was allowed by the head like saying that, like why did you go and do this?

Mr. Smith: Well, this is something that I'm wondering right now. We know the second set of prophecies about "not of woman born and the forest moving"—we know that those were definitely meant to mislead him.

Leonard: And plus the apparitions, is that what you're talking about?

20. Mr. Smith: Right.

Leonard: Well those were like spells and things like that, because they had the cauldron and they were putting stuff in it. Actually like creating the spells or having the apparitions come out and say that to him. And before the first time they'd met it was just the three witches and him and just like a tundra (*gestures to show a showering down of sorts*).

Leonard's interpretation in turn 2 ("And the fact that they're witches and have the powers that they're believed to have was enough to encourage him to do it") was mediated by his talk up until that point. That is, this new idea came about through his speaking. This interpretation

generated Ian's challenge to Leonard's claim that the witches told Macbeth what he wanted to hear because they foretold what would happen when Macbeth died. This utterance led both Louise and Leonard back to the text, specifically the language of the text and what a "lie" might actually mean as well as whether or not the witches even mentioned Macbeth's death.

Leonard's contribution, "Like they made him believe a lie" (turn 9) came from the previous day's small group discussion, when drafting the caption for the painting, Leonard sought to use the "e" word that Mr. Smith had mentioned during a previous class (see Figure 5). He and Mr. Smith returned to the text together, found the word "equivocation," and then, Leonard, said the word out loud. When Nick heard the word, he reacted "I don't even know what that means." Immediately, Leonard retorted, "It's like they made him believe a lie." In the passage from the whole class discussion above, Leonard's contribution supported Louise's claim that manipulation and lying were different things, that had different connotations attached to them, and thus, built a classroom culture in which students were accountable for their talk in being accountable to the discourse conventions of the discipline (Michaels, O'Connor, & Resnick, 2008).

With less than a minute left in the whole class discussion of *Macbeth*, Leonard responded to the final discussion question (Why do people do evil knowing that it's evil?) by drawing on the product of the previous day's collaborative multimodal project. That is, Leonard's response seemed to recast his understanding of the visual composition he co-created into the linguistic mode of discussion, functioning, for the lack of a better word, as a *re-transmediation* in which he brings back to the linguistic mode what had been previously transmediated from the linguistic mode into the visual mode (see Figure 1):

I think people are blind to the evil in the sense that anyone who's about to do an evil deed, the person who has come to them to talk to them about it has influenced them enough for them to only see the good in the outcome and not the bad. They know the bad things that will happen, but when they are confronted with the evil deed that they must do, they are confronted with the fact that if you do this, this will come out of it, this will come out of it, this...And [Macbeth] looked past the fact that he was going to kill the king, and he was going to have to kill people to become king. He just said, "I'm gonna think about the good of it and that's it."

Leonard's reference to "the person who has come to them to talk to them about it has influenced them enough for them to only see the good in the outcome and not the bad" constituted the verbal expression of the visual image depicted in Figure 1. The collective "person" who came to talk to Macbeth was the group of three witches in the left side of the painting. The witches influenced Macbeth to "only see the good" (the crown of the king) in the top right side of the painting and "not the bad" (the former king's decapitated head and the dead bodies of those Macbeth murdered) at the base of the image. In essence, Leonard's response translated the image of the painting from the visual sign system into the linguistic sign system of the whole class discussion.

In sum, students' participation in collaborative multimodal project work afforded a number of learning opportunities. First, students extended their responses during whole class discussions without prompting by the instructor. This was evidenced by the average number of words that students used per turn when compared to baseline, unimodal, and teacher averages in the same category (Table 17). Students in the multimodal condition provided additional perspectives on the text as evidenced by the number of interpretive discourse turns coded as

extending/elaborating, perspective taking, challenging, uptaking, intertextually responding, and argument conceding (Table 15). The use of inferences to evidence claims made about the text as well as interpretive, text-based rather than personal, non-text-based reasoning by examining characters and events in the text characterized students' talk in the multimodal condition (Table 15).

Discourse analyses revealed how focal group students pushed each other to think deeply about the text by connecting metatalk about the text with ways in which to facilitate the completion of the task and the achievement of the group's goals for the task (Table 7). Students in the focal group actively co-constructed meaning during their small group conversations in which every group member provided the same approximate ratio of codes for semiotic mediation (Table 11). These students also primed their own interpretive thinking by using ideas generated during small group discussions to respond to others' ideas during whole class discussions (Table 18). Finally, one focal student used the multimodal product as a thinking device as he re-shaped his response during a whole class discussions of literature by leaning heavily on the product of the multimodal task to respond to an interpretive question during the whole class discussion. Although these findings do not prove that multimodality accounted for the affordances described above, these findings do point toward the positive trend that existed in the multimodal condition, especially for members of the focal group who leveraged their multimodal literacy practices and effectively mediated their thinking during the small group discussion that supported their participation during the whole class discussion.

5.0 CHAPTER V: FINDINGS FROM CYCLE 2

5.1 CYCLE 2: WEEK 13

Students worked with the novel, *The Natural* (Malamud, 1952), during cycle 2. Continuing with the course's conceptual focus on epic and tragic heroes, the protagonist of Malamud's novel, Roy Hobbs, provided a compelling modern day tragic hero about whom many of the small group questions and whole class interpretive questions were focused. Based on preliminary analyses from cycle 1 and student push back that the multimodal group was able to complete more engaging project work, the unimodal linguistic activity was reconceptualized for cycles 2 and 3 to encourage students to produce more creative and potentially generative meanings from the text. For cycle 2, this meant that students in the unimodal condition created "found poems" in small collaborative groups prior to their participation in whole class discussions of literature (see Appendix M). The assignment required students to compile descriptive words and passages from the text to create a poem that represented how a particular symbol, theme, or motif functioned in the novel. Students in the multimodal condition were asked to represent one symbol, theme, or motif using the materials that were provided to them (e.g., clay, digital video, paint, sketching instruments).

Prior to constructing either a unimodal or multimodal product in each condition, students were guided through a brainstorming map (Appendix M). Students were asked to discuss what

they knew about themes, symbols, and motifs that the class had identified in *The Natural*. Groups were then asked to select a theme, symbol, or motif and identify at least three illustrative passages in the text in which the selected literary concept was present. The last step that the brainstorming map provided for students in the unimodal condition was information related to the construction of a found poem (e.g., resources to use, methods students could take to complete the task, and information about the analysis that accompanied each poem). Students were reminded that the poems would be shared in class on the next class day, and that the found poems would be graded according to the rubric that was attached to the brainstorming map in Appendix M. Instead of producing a found poem, students in the multimodal condition were asked to create a painting, sketch, digital video, or sculpture that represented a theme, symbol, or motif in the novel. Other than this last step, students in both conditions received the same set of instructions.

5.1.1 Unimodal and multimodal small group discourse analyses in cycle 2

In general, the same patterns that distinguished talk among small groups during cycle 1 held during cycle 2. For example, small group talk in the unimodal condition was characterized by metatalk more than any other code for semiotic mediation, whereas intersubjectivity was the most frequently coded aspect of semiotic mediation in the multimodal group (see Table 19).

Important differences between cycle 1 and cycle 2 small group talk emerged as well. For instance, the distribution of codes for semiotic mediation in the unimodal condition resembled the distribution of codes for semiotic mediation in the multimodal focal group's conversation during cycle 1. That is, the three unimodal groups engaged primarily in metatalk turns followed by a strong number of codes for intersubjectivity and goal formation. On the other hand, students

in the multimodal focal group engaged primarily in mediating talk that could be described as intersubjective in nature followed by lower levels of metatalk and goal formation (Table 19). Small group talk within unimodal groups was more frequently coded for aspects of semiotic mediation than small group talk in the multimodal condition. Only 42.4% of all turns taken during the unimodal focal group were not coded, whereas 93.5% of the turns taken in Nathan’s group in the multimodal condition could not be characterized using the coding scheme for semiotic mediation (see Table 19). These descriptive statistics suggest that more task-related talk occurred during cycle 2 in the unimodal condition than in the multimodal condition.

Table 19. Cycle 2 Small Group Discussion Characteristics

Group (Condition)	Turns	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Elizabeth, Mike, Natalie (U)	217	92	42.4	73	33.6	47	21.7	5	18.5
Eddie, Allison, Luke (U)	349	196	56.2	74	21.2	77	22.1	2	0.6
Josh, Alan, Nathan (U)	382	251	65.7	71	18.6	49	12.8	12	3.1
Leonard, Louise, Nick, Tim (M)	529	368	69.6	36	6.8	111	21.0	14	2.6
Kevin, Hannah, Riley (M)	1005	889	88.5	35	3.5	80	8.0	1	0.1
Saphire, Adam, Kelvin, Tom (M)	225	122	54.2	19	8.4	78	34.7	7	3.1
Nathan, Sal, Nelson (M)	261	244	93.5	14	5.4	11	4.2	0	0.0

Tables 20-26 present data from the three unimodal small group conversations and the four multimodal small group conversations. Each table displays the ways in which each

individual student engaged in talk that was coded for aspects of semiotic mediation, as well as the raw number of total turns and non-coded turns each individual took during the discussion.

Table 20. Cycle 2 Unimodal Focal Group Discussion Characteristics: Elizabeth, Mike, and Natalie

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Elizabeth	80	34.2	37	46.3	18	22.5	23	29.0	2	2.5
Mike	33	14.1	17	51.5	13	39.4	3	1.2	0	0.0
Natalie	104	44.4	38	36.5	42	40.4	21	20.2	3	2.9
Mr. Smith	16	6.8	--	--	--	--	--	--	--	--
Others	1	0.4	--	--	--	--	--	--	--	--
Total	234	100	92	39.3	73	31.2	47	20.2	5	2.1

Table 21. Cycle 2 Unimodal Small Group Discussion Characteristics: Eddie, Allison, and Luke

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Eddie	144	37.0	83	57.6	31	23.3	29	20.1	1	0.7
Allison	94	24.2	47	50.0	22	23.4	25	26.6	0	0.0
Luke	111	28.5	67	60.4	21	18.9	22	19.8	1	0.9
Mr. Smith	39	10.0	--	--	--	--	--	--	--	--
Others	1	0.3	--	--	--	--	--	--	--	--
Total	389	100	197	50.6	74	19.0	76	19.5	2	0.5

Table 22. Cycle 2 Unimodal Small Group Discussion Characteristics: Josh, Alan, and Nathan

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Josh	141	36.2	95	67.4	30	21.3	13	9.2	3	2.1
Alan	131	33.7	81	61.8	24	18.3	21	16.0	5	3.8
Nathan	110	28.3	74	67.3	17	15.5	15	13.6	4	3.6
Mr. Smith	6	1.5	--	--	--	--	--	--	--	--
Others	1	0.3	--	--	--	--	--	--	--	--
Total	389	100	250	64.3	71	18.3	49	12.6	12	3.1

Table 23. Cycle 2 Multimodal Focal Group Discussion Characteristics: Leonard, Louise, Nick, and Tim

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Leonard	183	30.4	137	74.9	12	6.6	27	14.8	7	3.8
Louise	158	26.2	107	67.7	12	7.6	33	20.9	6	3.8
Nick	126	20.9	85	67.5	11	8.7	30	23.8	0	0.0
Tim	62	10.3	40	64.5	1	1.6	20	32.3	1	1.6
Mr. Smith	54	9.0	--	--	--	--	--	--	--	--
Others	19	3.2	--	--	--	--	--	--	--	--
Total	602	100	369	61.3	36	6.0	110	18.3	14	2.3

Table 24. Cycle 2 Multimodal Small Group Discussion Characteristics: Kevin, Hannah, and Riley

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Kevin	394	34.3	353	90.0	13	3.3	27	6.9	1	0.3
Hannah	431	37.5	398	92.3	8	1.9	25	5.8	0	0.0
Riley	180	15.7	138	76.7	14	7.8	28	15.6	0	0.0
Mr. Smith	57	5.0	--	--	--	--	--	--	--	--
Others	86	7.5	--	--	--	--	--	--	--	--
Total	1148	100	889	77.4	35	3.0	80	7.0	1	0.09

Table 25. Cycle 2 Multimodal Small Group Discussion Characteristics: Nathan, Sal, and Nelson

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Nathan	96	34.3	84	87.5	8	8.3	4	4.2	0	0.0
Sal	118	42.1	108	91.5	5	4.2	5	4.2	0	0.0
Nelson	47	16.8	45	95.7	1	2.1	1	2.1	0	0.0
Mr. Smith	4	1.4	--	--	--	--	--	--	--	--
Others	15	5.4	--	--	--	--	--	--	--	--
Total	280	100	237	84.6	14	5.0	10	3.6	0	0.0

Table 26. Cycle 2 Multimodal Small Group Discussion Characteristics: Sapphire, Adam, Kelvin, and Tom

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Metatalk (#)	Metatalk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Sapphire	16	6.0	3	18.8	3	18.8	10	62.5	0	0.0
Adam	96	36.2	55	57.3	12	12.5	26	27.1	3	3.1
Kelvin	80	30.2	42	52.5	4	5.0	31	38.8	3	3.8
Tom	33	12.5	22	66.7	0	0.0	10	30.3	1	3.0
Mr. Smith	17	6.4	--	--	--	--	--	--	--	--
Others	23	8.7	--	--	--	--	--	--	--	--
Total	265	100	122	46.0	19	7.2	77	29.1	7	2.6

Individual contributions that were made during the unimodal condition were more evenly distributed than individual contributions during the multimodal condition. Although metatalk was the most frequently coded turn for most unimodal students, there were also relatively high percentages of the intersubjective code and low, but existing percentages for the goal formation code (see Tables 20 and 22). In the multimodal condition, on the other hand, the primary code that characterized most individual student contributions was “intersubjectivity.” These percentages were consistently higher than codes for other aspects of semiotic mediation in the multimodal condition. Students’ multimodal small group talk during cycle 2 was also characterized by very low percentages of the goal formation code. In fact, out of 14 students who engaged in small group collaborative talk in this condition, seven (50%) of these students never talked about the ways in which their collaborative work would facilitate the group’s achievement of the goals of the task (see Tables 23-26).

The differences that emerged in regard to the ways in which students in both conditions mediated their thinking during small group collaborations across the first two cycles might be explained by the nature of the task itself. For example, students who approached the multimodal task as somehow self-explanatory may have been much less likely to have engaged in metatalk

around the text whereas students in the unimodal condition might have gravitated precisely toward this code because the complexity of the task required a close consideration of how each group used language to generate new meanings from the text. Both the nature and the novelty of tasks for the unimodal and multimodal groups appeared to have been consequential during this cycle. The nature of the unimodal linguistic task—the found poem—facilitated students’ generative meaning making and metatalk by providing scaffolds that supported students’ development of ideas (e.g., the actual language available in the novel) while the novelty of the unimodal linguistic task resulted in students talking more about how they would collaborate to complete the task. Thus, both the generative nature of the task as well as the novelty of the written genre promoted—on the surface level of the coding scheme for semiotic mediation—dialogic small group discussions.

5.1.1.1 Cycle 2 unimodal focal group: Elizabeth, Mike, and Natalie

Although small group talk among focal students in the unimodal condition was characterized more strongly by metatalk and more evenly distributed semiotic mediation codes, this small group dialogue resembled the dialogue that occurred during cycle 1 in consequential ways. First, Mike contributed only 14.1% of all of the turns that were taken during the group’s development of the found poem about Roy Hobbs. Although this percentage increased from his participation during cycle 1 (when he accounted for only 12.6% of all small group turns), this low percentage suggested that the conversation that occurred during this activity was primarily between Elizabeth and Natalie, as was the case during cycle 1.

Another similarity that existed between cycle 1 and cycle 2 for the unimodal focal group was the group’s concern with conforming their ideas to the structure of the written genre of the task. Although student turns that reproduced this pattern of discourse in cycle 2 were coded as

metatalk because students were mediating their thinking about the text through their talk about the text, their talk was restricted to exploring a narrow range of possibilities within the text—those aspects of ambition, for example, that happened to fit within their decided-upon structure for the found poem. In this case, student talk often revolved around issues related to rhyming words that they identified for their found poems rather than a focus on the actual exploration of how words from *The Natural* could be combined in creative and meaningful ways that might produce a novel interpretation of the text.

The unimodal focal group selected “the importance of ambition” as the theme that they explored through the found poem that they created. In the following excerpt Elizabeth and Natalie considered how they would go about completing the task. A focus on compiling instead of transforming ideas in the text and the rules of writing such as the proper use of quotation marks pervaded the following exchange that occurred near the beginning of the group’s work:

1. Elizabeth: What about when he always says, “I want to be the best.” We have to put that in there somewhere.
Natalie: Okay. (???) Let me kiss your hand. I don’t think I read the first part of the chapter. We could do fantastic. There’s a quote, “Fantastic.”
Yes, no?
Elizabeth: Yeah, write it down. Let’s just like compile a list.
Natalie: Just write down stuff that you think is ambitious. Mr. Smith, do we have to cite these?
5. Elizabeth: No!
Natalie: Are you being serious? I’m going to put the page number next to it, just in case.

Elizabeth: Okay.

Natalie: I'm a cautious person. . . .(to Mr. Smith) Do you we have to write in the poem what page we found it on and stuff? I'm just talking like in the poem.

In the passage above, Elizabeth identified a potential moment in which the importance of ambition in the protagonist's life was evident in the text (turn 1). Natalie then intimated in turn 2 that she had not read the text as closely as Elizabeth had and expressed gratitude to have Elizabeth's knowledge to assist the group in the completion of the project. Elizabeth then suggested that Natalie record a list of ambitions that Roy Hobbs exhibited throughout the novel. By so doing, Elizabeth set the tone for the group's collaborative work. Elizabeth encouraged Natalie to "do" rather than to "think" as she had expressed during cycle 1 by marking their collaborative work as "just" a compilation of various ideas that they could place in a list in order to meet the requirements of the activity (turn 3). Natalie considered the fact that since they were lifting ideas out of the text, that she might have to use quotation marks around every word that they used to make the found poem. This focus on peripheral issues to the meaning of the text prevented members in this small group from engaging each other with their ideas about the novel.

The focus on the use of quotation marks for this task reoccurred near the end of the period as the group put its finishing touches on the poem:

1. Natalie: Even with one eye...All those records. All those records. I wanted everything.

Elizabeth: That actually isn't bad.

Natalie: I just (???) rewriting it. We have to re-write it though.

- Elizabeth: Oh, we do.
5. Natalie: Yeah, 'cause you want to use that one line. We have to use quotation marks, though.
- Elizabeth: For all of them?
- Natalie: (*laughing*) Every single word needs quotation marks.
- Elizabeth: Can I just put one at the end and one at the beginning? Or no, I can't 'cause they all don't go together.
- Natalie: No, they don't go with each other. Pretty much every line needs its own quotation. When's this class end?

In this passage, Natalie and Elizabeth returned to their consideration of how and whether to use quotation marks within the found poem that they had written. Only after Mr. Smith told the group that it wouldn't be necessary to put quotation marks around every word did the conversation move away from this aspect of the group's poem. Thus, this small group exchange continued to exhibit characteristics of the baseline and cycle 1 unimodal small group and whole discussions in which students turned to the teacher to validate their ideas.

In the next excerpt from the unimodal focal group conversation students focused on conforming their creative use of language to what they understood as the preferred form of this written genre:

1. Natalie: My question is, does it actually have to rhyme?
- Elizabeth: I don't think so, 'cause not all poems rhyme.
- Natalie: Oh, this is a good one: "I wanted everything."
- Elizabeth: Okay.
5. Natalie: So I'm thinking we need something to rhyme with Hobbs. Cobbs,

Dobbs, Mobs. Roy Hobbs, not in the mob, cream of the crop, will go to the top.

Elizabeth: What does that say?

Natalie: “Again, please” It was after he threw the pitch and he swung and missed it. Roy Hobbs, not in the mob, cream of the crop=

Elizabeth: =it doesn’t have to rhyme.

Natalie: =He will go to the top.

10. Elizabeth: I’m just saying.

Natalie: Yeah, but it’s a lot more fun. He will go to the top. Best there ever was.

Elizabeth: I think this one of yours and this one kinda fit together.

Natalie: Cream of the crop...I want everything? . . .

Elizabeth: (*to Mr. Smith*) Does it have to rhyme?

15. Mr. Smith: No.

Elizabeth: Okay. We can. I’m trying to think of what the easiest way to approach it. I’m trying to think of the easiest way to approach it. We can kinda like just find words like you did that are shorter that kind of fit together, kind of sequentially, but not really. ‘cause like, and just make like little three line things and just throw it together.

Natalie: We need twenty lines. Not all of them have to be from the book.

Elizabeth: They don’t?

Natalie: It has to be about the book. You have to use words from the book,

but you don't have to use words just from the book. It says, "You may need to add your own words to help this work."

Although Elizabeth told Natalie twice (turns 2 and 8) that the found poem did not have to rhyme because "not all poems rhyme" (turn 2), Natalie continued to brainstorm words that would rhyme with the parts of the poem that she and Elizabeth had already written. Elizabeth confirmed with Mr. Smith in turn 14 that the poem did not have to rhyme before suggesting the "easiest" approach to completing the project that must have persuaded her other group members since the final product resembled Elizabeth's description in turn 16 (see Appendix N).

5.1.1.2 Summary of unimodal small group talk in cycle 2

Although the codes for semiotic mediation for the unimodal focal group identified how students in this group drew upon metatalk, intersubjectivity, and goal formation to complete this task, and thus, talked primarily about the meaning of the text, followed by how they would collaborate to complete the task and what they hoped to accomplish by completing the task, closer analysis of the content of students' talk revealed an emphasis on reproducing the correct form for the genre rather than transforming the meaning of the text through their novel arrangement of words. Taken together, the concerns of the unimodal focal group during this collaborative task included (a) the use of quotation marks within a found poem, (b) the compilation of words that were in any way related to the theme of "the importance of ambition," (c) identifying words that rhymed with quotations culled from the text, and (d) finding the easiest way to complete the task by writing the fewest number of words while still meeting the requirement of 20 lines for the poem. Indeed, Natalie said at one point during the small group conversation, "It doesn't really have to make sense. Like read the poem on the board" to which Elizabeth replied, "It doesn't really matter to me." As was the case during this group's work during cycle 1, the task was more about

“doing school” rather than building knowledge, co-constructing meaning, or interpreting literature.

5.1.1.3 Cycle 2 multimodal focal group: Leonard, Louise, Nick, and Tim

Due to unanticipated absences and subsequent reconfigurations among the small groups, Tim joined the multimodal focal group during their collaborative work in cycle 2. Tim’s participation was limited to only 10.3% of all talking turns, however. Tim contributed approximately as often as Mr. Smith during the small group discussion (9.0% of all talking turns in the multimodal focal group). While the descriptive statistics for this group suggested that the focus of talk was on intersubjectivity, the patterning of intersubjective turns with metatalk and goal formation turns resembled the trend that had occurred during cycle 1 for the multimodal focal group: students integrated these aspects of semiotic mediation during their talk which promoted students to (a) push each other and themselves to warrant the interpretive decisions they made, (b) co-construct meaning from the text, (c) access a range of semiotic tools to enhance their interpretation of the text, and (d) connect to previous class activities to facilitate the creation of the group’s multimodal product. The remainder of this section presents evidence for these findings.

Almost immediately, members of the multimodal focal group began a discussion that combined metatalk, intersubjectivity, and goal formation codes that led students to encourage each other and themselves to articulate their thinking in ways that supported the interpretive decisions that they advanced. Louise, Leonard, Nick, and Tim also selected a theme to explore as a group that could be represented by a multimodal product. In the excerpt that follows, Louise challenged Leonard to explain how his interpretation of the text (metatalk) could be represented by Louise in the visual mode (intersubjectivity) and connected to the group’s goals for the assignment (goal formation) as they planned another painting to respond to the task prompt:

“Using the materials available (clay, paint, sketching pencils, canvas, digital video), construct a product in which you represent how this theme, motif or symbol functions in the *The Natural* using evidence from the text.”:

1. Louise: What was your idea, since you were saying you had this idea?
Leonard: A baseball that, when he hits it, turns into a bird.
Louise: Yeah, but what would that be for?
Leonard: I don't know.
5. Louise: That would be sweet, you know, like framing it kinda.
Leonard: Oh, stuff! It could be like “human reaction to both success and loss.” Because every single time there's a bird, there's a killing. Like birds are bad luck in this story. All birds are bad luck. So it's like him hittin' a homer, but then when it goes, it turns into a bird.
Louise: It like flies away like ahhhhhh.
Leonard: Peace.
Louise: I could do that.
10. Leonard: Could you do a bird doing peace?
Louise: No, just stuff.
Leonard: Birds have beaks. I don't think they'd be like blah blah blah. I just licked my hand with Purell on it.
Louise: Ew. That's disgusting. (*laughing*) No, I actually did. I like that idea. . . .
Leonard: Or should it be character tested by misfortune—it could be that.

‘cause if he hits it, you could say, um, like if you look at what we did for the last one—the two frames—(*creates a rough sketch on his paper*) we can have him hitting the first time and then like having the caption. (*to Tim*) This is where you can come in if you feel like it and draw a homer, like a “h-o-m-e” “r-u-n.”

Louise’s challenge to Leonard in turn 3 (“What would that be for?”) stumped Leonard at first (“I don’t know”). This turn provided another example of how the multimodal focal students internalized the dialogic discourse norms established by Mr. Smith at the beginning of the semester. Louise’s comment about how the ball and the bird could serve as two different “frames” for the image sparked Leonard’s thinking (“Oh, stuff!”) as he began to realize one way in which the group’s project might materialize. In turn 14, Leonard returned to Louise’s words (“the two frames”) and referenced the group’s “framing” of the three witches and Macbeth from the group’s multimodal project during cycle 1 (“like if you look at what we did for the last one—the two frames”). Leonard—as he did during cycle 1—sketched out a rough scene of how he imagined the project: Roy Hobbs hitting a homerun in one frame while the other frame would depict a ball turning into a bird. Finally, Leonard identified an opportunity in turn 14, albeit facetiously, for Tim, who had claimed that he could only draw letters, to participate in the group’s construction.

The multimodal focal group presented its idea to Mr. Smith shortly after the passage above:

1. Leonard: I got a good one (*to Mr. Smith*). . . .
Mr. Smith: Let’s hear it.

Louise: Well, Leonard actually had a really good idea. He thought of making it like hitting a ball (*swings imaginary baseball bat in the air*) but it's like turning into a bird (*wiggles fingers to mimic the ball's transformation*). Like it's flying away, like getting away from him. Like character tested by misfortune.

Leonard: So the first frame is the homerun, like the ball going into the seats. And then in like—we're going to do it in like two things—she's up with that—and then, in the second one, we're gonna like transform the ball like in a bird, and then someone trying to catch it (*raises hand up into the air*). With his hand out and that. But I don't know why the bird would come in on that one.

Besides the fact that Leonard and Louise expressed enthusiasm and demonstrated substantive engagement throughout this small group discussion, Leonard borrowed Louise's term yet again, to talk about the visual product now in cinematic ways: "So the first frame is the homerun. . . . And then, in the second one, we're gonna like transform the ball like in a bird, and then someone trying to catch it." As Leonard visualized the representation, however, he came to realize that the group had not yet thought out how bird figured in to the interpretation. Leonard's talk mediated his thinking here to push himself and the rest of the group to re-think how they have made sense of the presence of the bird in the proposed painting: "But I don't know why the bird would come in on that one."

Nick, whose participation and substantive engagement during this discussion increased from cycle 1, provided a way to think about the symbol of the bird in the painting:

1. Nick: I'm thinking, can the bird represent Harriet Bird, too, along with

misfortune? And then, since it's going towards like, Memo=

Louise: =That's actually a good idea. We could have him. That's actually a really good idea. We could have the bird like carrying a gun. I like that a lot.

Nick: Yeah. So it represents misfortune and Harriet and how it=

Tim: =takes two.

5. Nick: *(to Leonard)* We kinda figured this idea like the bird also represents misfortune but it also represents Harriet. And since it's going towards Memo, it like...

Nick's contribution clarified the group's interpretive thinking and made the visual representation that the group created more complex and sophisticated (see Figure 6). Specifically, Nick suggested that the symbol of the bird also stood for Harriet Bird, an important character in the novel who shot Roy Hobbs, which resulted in the protagonist's delayed debut in professional baseball.



Figure 6. Cycle 2 Multimodal Focal Group Project: Leonard, Louise, Nick, and Tim.

After an extended deliberation in which group members considered multiple ways in which they could represent the ideas that they had generated, Louise began to paint one way to represent their ideas on canvas:

1. Louise: Can I just paint the picture?
Nick: You might as well. Yeah. It's all over there.
Louise: I'll just show you what I was thinking. *(Louise begins sketching. She stretches her arms out as if to imagine how it would look to be hitting a baseball; she flexes her arms multiple times before realizing that it's more helpful for her to see this image as demonstrated by someone else. Nick, who is sitting across from*

Louise, demonstrates the swinging of a baseball bat; specifically, the hand and wrist motion that occurs upon swinging).

Nick: You could have one of them...

5. Leonard: No, dude. She's in her mood.

Louise: *(to Nick)* Do it.

Leonard: No, you're a rookie.

Nick: *(with hands extended)* I played baseball for (??)

Tim: *(making a swinging bat motion)* It's more in the wrist.

Rather than continuing to explain how the painting might eventually look, Louise simply began to draw it. In so doing, Louise transmediated the group's thinking from the linguistic sign system first to the gestural sign system and then again to the visual sign system. The resulting image, discussed below, extended the interpretive potential of *The Natural* during this small group discussion. Leonard recognized light-heartedly, the deep engagement that was required for this type of thinking by interrupting Nick, who in turn 4 tried to provide additional information about how Louise might represent the group's ideas. Leonard suggested in turn 5 that Louise was "in the zone" as it were, and additional information, as helpful as it may or may not be, would be better left unsaid.

Ultimately, the group's painting represented both 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 novel, Roy Hobbs, the oldest rookie in baseball, hits a pitch so hard that it knocks the cover off of the ball. The focal group members played with this scene by depicting an unraveling 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. In the first frame, Roy was depicted as “the best there ever was,” hitting a baseball with such force that the cover came undone. Frame 2 illustrated how no matter how great Roy became, he could not escape his past, including Harriet Bird and the misfortune that befell him after a series of poor choices. These choices led ultimately to Roy’s character test symbolized by Memo, who connected Roy to his worst choice and ultimate instance of misfortune: Roy took a bribe and agreed to “throw” or purposefully lose a game in which he was playing.

5.1.1.4 Summary of multimodal small group talk in cycle 2

Although much of their talk was not coded, especially after the group returned from lunch, which divided each class during period 3 into two halves, students in the multimodal focal group collaborated through meaning making in the gestural and visual sign systems to construct an understanding of the text that they did not have before the task. During this collaboration, students challenged each other and themselves to warrant linguistically with words the choices that they made through physical gestures and visual representations using paint and canvas. This small group’s conversation was characterized by sense making and the exploration of ideas.

5.1.1.5 Comparing unimodal and multimodal small group work in cycle 2

Coding for aspects of semiotic mediation in both conditions revealed how students in both conditions differed in terms of the type of mediation on which students most heavily relied in order to complete their respective projects: metatalk in the unimodal condition and intersubjectivity in the multimodal condition. Discourse analyses of small group talk in the focal group revealed how the distribution of codes for semiotic mediation may be more meaningful in

characterizing dialogic interactions than mere frequencies of codes within each small group. For example, the talk that facilitated and influenced the multimodal focal group's painting integrated all three aspects of semiotic mediation—metatalk, intersubjectivity, and goal formation—throughout the discussion. Among other small groups, the pattern of goal formation, followed by metatalk followed by intersubjectivity usually emerged. Although it made intuitive sense that groups would want to identify the purposes of their work, talk about the ways in which the text might lead toward that purpose, and finally how students might work together to complete the project, the dialogic nature of the multimodal focal group work suggested that integrating all three aspects of semiotic mediation during collaborative tasks might leverage student learning more robustly.

Close discourse analyses of focal group collaborative work revealed important differences in the ways that both groups made sense of the tasks that students completed. Replicating findings from cycle 1, talk among students in the unimodal focal group was characterized by a focus on conforming students' ideas to the written genre in which students were attempting to work. On the other hand, students in the multimodal focal group considered first and foremost, their ideas and the ways in which students could “play” with the medium in order to represent those ideas most fruitfully.

5.1.2 Cycle 2 whole class discussions

The whole class discussions of *The Natural* took place just before students had finished reading the novel. Some students in both conditions read ahead in order to find out how the story ended while other students claimed to have completed none of the reading at all; still others relied solely on *Sparknotes* to guide their understanding of the text. Student talk in the multimodal

whole class discussion condition was distinct in a number of ways from student talk in the unimodal whole class discussion condition. These differences are explored in the following section.

5.1.2.1 Unimodal and multimodal whole class discussion discourse analysis in cycle 2

Table 27 presents a comparison of the features of the whole class discussion in each condition. For the most part, students in the multimodal condition made more dialogic and monologic moves because they took more than twice the number of turns taken by students in the unimodal condition. So while student numbers are higher in nearly every category, the percentages within the discussion reveal relatively few robust differences between the two groups. Generally, the same pattern held true for teacher discourse codes (Table 28), although the number of teacher turns in each condition was not nearly as distinct as student turns (36 teacher turns in the unimodal condition versus 55 teacher turns in the multimodal condition).

Table 27. Number of Student Moves During Cycle 2 Discussion by Condition

Coding Categories	Unimodal	Multimodal
Extension/Elaboration	12	21
Perspective Taking	16	24
Student-Generated Question	2	10
Uptake	0	1
Challenge	3	9
Nonstrategic Concession	0	1
Collaborative Classroom Culture	1	7
Intertextual Reference	0	7
Evidence Source—Inference	16	40
Evidence Source—Prior Knowledge	4	12
Evidence Source—Text	14	14
Reasoning—Character	14	37
Reasoning—Event	13	10
Reasoning—Hypothetical	6	14
Reasoning—Language	0	2
Reasoning—Personal	5	7
Unconstructive Challenge	3	9
Unelaborated Response	19	28
No Code/Off Task	4	16

Table 28. Number of Teacher Moves During Cycle 2 Discussion by Condition

Coding Categories	Unimodal	Multimodal
Revoicing/Accountable Talk	7	12
Uptake	5	9
Scaffolding	1	0
Establishing Discourse Norms	9	11
Just in Time Information	0	1
Modeling	3	0
Providing Information	3	4
Repeating Question	7	11
Evaluation	1	1
Display Question	0	1
No Code	0	5

Table 29. Characteristics of Cycle 2 Discussion by Condition

Characteristics	Unimodal	Multimodal
Total number of pre-planned discussion questions	5	5
Total number of questions posed by the teacher	30	47
Total number of student interpretations	31	63
Total number of student turns at talk	60	133
Total number of teacher turns at talk	36	55
Average length of teacher response (words/turn)	44.4	27.7
Average length of student response (words/turn)	23.5	20.5
Total number of dialogic spells during discussion	5	14

The differences between the two conditions are more clearly identified in Table 29. This table represents the most salient general differences between the ways in which these discussions unfolded by identifying the number of student interpretations that were generated, the number of student turns that were taken, the number of words per teacher turn, and the number of dialogic spells that occurred (see Table 29). A closer look at these data coupled with excerpts of student and teacher talk from the unimodal and multimodal condition illustrate just how different these two class discussions were.

Students in the multimodal condition provided nearly twice the number of interpretations as students in the unimodal condition. Interpretations included any move that was coded as (a) extending or elaborating, (b) exploring multiple perspectives, (c) taking up another student's idea, (d) challenging an idea, (e) referencing intertextual sources, or (f) conceding one's point of view. Students also took twice as many turns in the multimodal condition. Students taking fewer turns and generating fewer responses in the unimodal condition seemed to have affected the way in which Mr. Smith facilitated this discussion. Mr. Smith averaged 44.4 words per turn at talk during this discussion. This was easily the highest average that Mr. Smith posted during the entire study. These extended turns at talk also limited the time that students were allotted to take

turns during the discussion. The following example illustrates the way in which a lack of students' elaboration related to the teacher's extended turn taking:

1. Mr. Smith: So we've pretty firmly established that Roy is headed in this downward slope and maybe we haven't seen a final downfall or a final reason but we've talked about the conflict a lot, between what seems to be his passion for baseball but also the distraction of women—all those things being issues for him. If you think about this next question. If we can say that he is the tragic hero in some ways, and you can think throughout the different characteristics that he shows as the tragic hero should have. In what ways is he a modern tragic hero? That is, what are the unique aspects of Roy's personality and the decisions he makes that contribute to his ultimate downfall? How can we compare him to other tragic heroes that we might know? What makes him different? What makes him different from somebody like Macbeth?

Luke: He doesn't kill anybody.

Mr. Smith: Obviously, he doesn't kill anybody. But what about his personality? How does the idea of the hero change since Macbeth was written? Bella, any idea?

Bella: Wait, what are you asking?

5. Mr. Smith: The difference between Roy and somebody like Macbeth. How does the tragic hero change?

Bella: Um, I don't know. I'm not sure.

Mr. Smith: Okay, Samuel.

Samuel: From the earlier stories we read, I don't know the heroes would have to save a life, or killing something, or saving a whole town. Like in this book, a hero is just like coming back from, or improving his own life, kinda.

Mr. Smith: Phil, how are his struggles unique, especially compared to Macbeth? How are the things that he deals with different from Macbeth?

10. Phil: *(doesn't respond)*

Mike: Use any sorta words.

Mr. Smith: How bout you answer it then Mike? How is Roy unique as a tragic hero? How are the things that he deals with different than the things that Macbeth...

The teacher made monologic moves during this unimodal whole class discussion that occurred rarely throughout the semester. These moves included (a) cold calling on students by name (turns 3, 7, 9, 12), calling on another student for a response to a question rather than challenging or coming back to the first student called upon (turn 7), evaluating student responses (turn 3), posing a series of questions rather than building off of previous student responses (turn 9) and posing multiple questions within a single turn so that it was unclear precisely which question was actually on the table (turns 1, 3, 9, 12). This uncharacteristic verbal behavior might suggest that the quality of student talk informed the nature of teacher talk in consequential ways during this discussion. In the end, students' monologic responses to the teacher's interpretive questions

transformed the teacher's discourse from dialogue with students about a text into a traditional, teacher-centered, initiation-response-evaluation discourse pattern.

The whole class discussion in the multimodal condition resembled the students' and teacher's talk during this group's cycle 1 discussion. Some differences existed and included multimodal students' tendencies to challenge more and uptake less during the cycle 2 discussions.⁹ Students also engaged multiple perspectives to a greater extent during cycle 2 although they were less likely to elaborate on their responses (Table 27). During the cycle 2 discussion then, Mr. Smith and the students in the multimodal condition engaged in a whole class discussion that closely resembled the discussion from cycle 1, whereas both Mr. Smith and the students in the unimodal condition engaged in a discussion that was different in structure from the type of discussion that these same participants engaged in during cycle 1.

Between the two groups, the single most important data point that captured the substantive difference between the two whole class discussions was the number of dialogic spells that occurred during cycle 2 (Table 29). In the unimodal condition only five dialogic spells occurred, whereas 14 dialogic spells occurred in the multimodal condition. The excerpt below from the multimodal whole class discussion differed in important ways from the whole class discussion in the unimodal condition during cycle 2. After posing the question and challenging a student to elaborate on her response, 25 student turns were taken before Mr. Smith synthesized the conversation up to that point.

1. Mr. Smith: Who is to blame for Roy's downward spiral? How does your
-

⁹ These codes are very closely related conceptually, but may warrant a distinction in terms of purpose: turns that were coded as challenges enhanced discussions by dwelling momentarily on an idea that had emerged over the course of the discussion in order to deepen discussion, whereas uptake codes were identified by elaborations and connections of a previous idea to a new idea, and therefore functioned to extend the discussion.

reading of the novel's portrayal of themes, symbols, or motifs make sense of who or what is at fault for Roy's downfall?

Hannah: I think it's himself.

Mr. Smith: Okay, for what reasons?

Hannah: 'cause he made the choice he did.

5. Sean: I agree. It's all Roy's fault.

Hannah: It is.

Kevin: Well it's not all Roy's fault. When he first started, it wasn't his fault. Like when he was first trying to start off. But when he got his second chance, everything that happened to him was pretty much his fault, his own doing, absolutely.

Sean: But not when he got shot.

Kevin: Not in the beginning. That's why I said not in the beginning, it wasn't his fault. But when he got his second chance, every reason that he failed was his fault.

10. Nelson: I think it was more Memo. If Memo wasn't there, he wouldn't have made the choices he had made.

Kevin: True.

Louise: But he had the chance to not be with Memo and be with Iris, but he made that choice as well.

Nelson: Yeah, because of Iris (???)

Sal: No one's to blame for their, like, no one else can be blamed for

your own actions. It's your responsibility, it's your fault, you made the actions period.

15. Nelson: [He wouldn't have made those same choices without Memo, though.

Adriana: ??????]

Sal: If he woulda thought about it, then he would've made his decisions=

Nelson: =If Memo wasn't in the story, he wouldn't have made the same choices.

Leonard: Blinded by love!

20. Kevin: He still made those choices regardless of who's there or who's not.

Louise: Exactly.

Sal: It's still his choice.

Nelson: Yeah, but it's saying who's to blame. And I think it's more Memo.

Leonard: What choices did he make, though, that were affected by Memo that he wouldn't have made if she wasn't there?

25. Nelson: That, uh, fixing the game. That's one of the main ones.

Leonard: Yeah, but, that was already in his downfall. He was already like in the bottom of his downfall as is, but he was doing it to have a life with her. So maybe it's a bad thing for us, but for him that's not a bad thing at all. 'cause he's getting what he wanted.

Kevin: He just ate himself to death. He sold himself out.

Leonard: He got what he wanted, though, so.

Kevin: Just so he could be with Memo, he sold himself out.

30. Mr. Smith: Okay, so we've got two things going here. Again, if you haven't read just a little bit ahead, things like fixing the game will become clearer here pretty soon. But the idea is, Adriana mentioned something about going against his character. Who do we think he is or who do we think he should be? Adriana, what was your thought on this? Who do we want to think he is?

The opportunities to learn that existed in the excerpt above surpassed the opportunities that were available to students in the unimodal condition. It is interesting to note that the original question that preceded this extended dialogic spell dealt specifically with the literary concepts that students had worked with during their collaborative multimodal projects. In turn 1, Mr. Smith asked students to consider how their “reading of the novel’s portrayal of themes, symbols, or motifs” helped students to “make sense of who or what is at fault for Roy’s downfall.” Thus, the central focus of this question implicated students’ multimodal project work with themes, symbols, or motifs. After Hannah’s unelaborated response in turn 2, Mr. Smith challenged Hannah to provide a rationale for her claim, which was enough kindling to ignite what Nystrand et al. (2003) termed a dialogic “fire” (p. 190).

It is important to note here that Kevin, who had not taken any talking turns in any previous whole class discussions and had a history of involvement in small group talk that was not coded for aspects of semiotic mediation, entered the classroom that morning complaining about “how horrible” the ending of the story was. His response to the protagonist’s choices at the end of the book included anger and frustration. He even called Roy Hobbs “stupid” and suggested that Roy “ruined the whole book for me” (Field notes). His energy related to this text

was evident in the excerpt above in which he articulated how Roy was to blame in the end, although the events that led Roy to that point were not necessarily within his control. Kevin's comments and the responses they provoked provided a useful illustration for why multiple perspectives and participation from many students might be a critical aspect of dialogic discussions—nine different persons participated in the dialogic spell reproduced here.

Additional features of the dialogic spell that are important to point out include Leonard's moves in turns 24 and 26. Up until that point students were considering whom to blame for Roy's downfall. Students immediately jumped into answering this part of the question without connecting it to the first part of Mr. Smith's question, "How does your reading of the novel's portrayal of themes, symbols, or motifs make sense of who or what is at fault for Roy's downfall?" Leonard's challenge in turn 24 brought the focus of the conversation back to the text and out of the hypothetical space in which students were debating. Leonard's question, "What choices did he make, though, that were affected by Memo that he wouldn't have made if she wasn't there?" was posed respectfully and encouraged the participants in the discussion to begin gathering textual evidence to support their claims, as Nelson did in turn 25: "That, uh, fixing the game. That's one of the main ones." Leonard continued to challenge Nelson's idea in turn 26, and offered an alternative way of thinking about Roy's downfall and Roy's own motives for making the decisions he made: "Yeah, but, that was already in his downfall. He was already like in the bottom of his downfall as is, but he was doing it to have a life with her. So maybe it's a bad thing for us, but for him that's not a bad thing at all. 'cause he's getting what he wanted" (turn 26). Such a sophisticated move more closely resembled Mr. Smith's facilitation of discussion rather than a student's participation within discussion and so functioned as another example of the multimodal focal students' internalization of dialogic discourse norms. Indeed, it

appeared that this was precisely the direction that Mr. Smith wanted the discussion to go since he picked up on Adriana's inaudible response (turn 16) during the dialogic spell to connect the talk to "character." "Character tested by misfortune" was, of course, one of the themes that the multimodal focal group had explored during their collaborative group project.

5.1.3 Connections across discourse contexts in cycle 2

After comparing each individual's contribution during whole class discussion with that individual's small group talk that was coded as metatalk, intersubjectivity, or goal formation, one connection was identified between these two discourse contexts. Before examining the important connection that was made, I provide three reasons why so many fewer connections were made during cycle 2 than in cycle 1.

The first difference that may have accounted for the low number of connections made across small group and whole class discussions was the classroom dynamic. Key individuals who connected multiple ideas across discourse contexts during cycle 1—Natalie, who provided 67% of the unimodal condition's connections and Ian, who contributed 28% of the multimodal condition's connections during cycle 1—were absent either on the day when the small group work or the whole class discussion took place.

A second possible reason for the discrepancy between cycles related to the small group and whole class discussion dynamic. Interestingly, those students who were most likely to take turns that were coded for aspects of semiotic mediation in the small groups were least likely to participate during whole class discussions. In other words, students who used talk to mediate their thinking in a small group were not usually the students who took the most turns during whole class discussions. Related to this finding is the fact that those students who were less

likely to use talk to mediate their thinking during small group discussions were the most frequent turn takers during the whole class discussion in cycle 2 (see Table 30). It may be that the opportunity to engage in the discussion never presented itself for many students who clearly had something to contribute especially in the unimodal condition in which only 60 student turns were taken, 55% of which came from the same three students (Mike, Luke, and Alan).

Table 30. Student Participation and Connection of Ideas Across Discourse Contexts in Cycle 2

Student	Group	Condition	Small Group Talking Turns (%)	Mediating Small Group Talking Turns (%)	Whole Class Talking Turns (%)	Connections
Elizabeth	UFG	U	34.2	53.7	8.3	0
Mike	UFG	U	14.1	48.5	25.0	0
Natalie	UFG	U	44.4	63.5	0.0	0
Eddie	EAL	U	37.0	42.4	1.7	0
Allison	EAL	U	24.2	50.0	6.7	0
Luke	EAL	U	28.5	39.6	15.0	0
Josh	JAN	U	36.2	32.6	3.3	0
Alan	JAN	U	33.7	38.2	15.0	0
Nathan	JAN	U	28.3	32.7	0.0	0
Leonard	MFG	M	30.4	25.1	21.8	1
Louise	MFG	M	26.2	32.3	8.3	0
Nick	MFG	M	20.9	32.5	2.3	0
Tim	MFG	M	10.3	35.5	0.0	0
Kevin	KHR	M	34.3	10.0	7.5	0
Hannah	KHR	M	37.5	7.7	3.0	0
Riley	KHR	M	15.7	23.3	0.8	0
Nathan	NSN	M	34.3	12.5	24.8	0
Sal	NSN	M	42.1	8.5	10.5	0
Nelson	NSN	M	16.8	4.3	8.3	0
Saphire	SAKT	M	6.0	81.2	0.8	0
Adam	SAKT	M	36.2	42.7	0.0	0
Kelvin	SAKT	M	30.2	47.5	5.3	0
Tom	SAKT	M	12.5	33.3	0.0	0

This finding has important implications for practice. It suggests that effectively structured small group dialogue might be especially critical for students who may not feel comfortable or

willing to participate in whole class discussions of text. It also suggests that one approach to transforming classroom discourse might include conferencing with students who might take so many turns at talk that it precludes others from participating. Mike, a focal student in the unimodal condition, for example, took only 14% of the turns, of which only half of those turns were related to the task at hand, during the small group discussion among three students, but 25% of the turns during the whole class discussion (Table 30). Although many teachers know implicitly which students participate effectively and which students do not, as well as which students are engaged in the discussion even though they may not be contributing vocally and which students are not engaged, these data provide a clear starting point for a teacher who might want to change the ways that discussions are enacted.

Finally, the whole class discussion questions that Mr. Smith and I constructed for cycle 2 were clearly connected to the work that students were asked to complete during their collaborative small group projects. Although this seemed to make sense at the time since we wanted students to connect the ideas that they addressed in their small groups with the inquiry-based questions that students were asked during the whole class discussion, this strategy seemed to have backfired on us. The first three whole class discussion questions (How do the themes of *The Natural* contribute to Roy's status as a tragic hero? How do the motifs and symbols within *The Natural* contribute to the meaning of the text?; and Who is to blame for Roy's downward spiral? How does your reading and portrayal of the novel's themes, symbols, and motifs make sense of who or what is at fault for Roy's downfall?) referred explicitly to the focus of students' small group work: represent how a theme, motif or symbol functioned in *The Natural* using evidence from the text (see Appendix O). As such, despite his best intentions toward dialogism, Mr. Smith's questions took the tone of display questions, characteristic of I-R-E discussions, in

which the teacher asks questions for which there is one known answer and students respond with short, unelaborated answers, in turn. The following interaction demonstrates at least one student's confusion about Mr. Smith's purpose for the discussion:

1. Mr. Smith: They said they had a hard time subduing him. He is trying really hard to make that comeback, to succeed despite the misfortune. And the big question that we end up finishing the novel with is: Can he do it? Can he escape this idea of being a tragic hero? We've got it pegged on him. Can he make some progress here? Now this next question—make sure that you have something on the first one—connecting these themes to the idea of Roy as a tragic hero and some of those characteristics. The next question could potentially be a little bit tougher because we have the symbols and motifs, but we're basically thinking about the same thing: Can we connect these symbols and motifs to Roy as the tragic hero. Take a second. Think through Wonderboy, the parallels to Excalibur, water, birds, trains.

David: And what's the meaning of the text?

Mr. Smith: What do you mean by your question?

David: [The direction on the discussion sheet] says "how do the themes and motifs and symbols contribute to the meaning of the text."

5. Mr. Smith: That's what we've been talking about here. There's nothing that we've established in the text as the "single meaning." We're talking about all of the different choices that Roy has made that

have made him into more of a tragic hero or maybe a more typical hero that we really respect, right? So the motifs that we've been tracking—how would that add into it?

In the interaction above, David interpreted Mr. Smith's use of the term "meaning" as a static, identifiable idea, as if there were only one meaning that could be made from Malamud's novel. In essence, David was asking Mr. Smith to clarify the latter part of the question so that he could focus on the former part of the question by answering it with either a theme, motif, or symbol that he had identified. Mr. Smith's intention, however, was for David to consider how the two parts of the question related. This clash of intended meanings provided an important insight into why the whole class discussion lacked identifiable connections between small group and whole class discussions: I-R-E discussions promote students' recitation of known information rather than an open dialogue about ideas (Nystrand, 1997). So if students are under the impression that the genre of discussion is a traditional one in which teachers ask questions for which they know the answer, students respond either accurately or inaccurately to the question, and the teacher evaluates students' responses in turn, students may likely make monologic rather than dialogic discussion moves.

5.1.3.1 Small group to whole class connections in cycle 2

As previously mentioned, only one connection was made between small group and whole class talk about *The Natural*. As was the case in cycle 1, Leonard, a focal student in the multimodal condition, provided the most powerful instance in which a connection across discourse contexts was demonstrated. As in the whole class discussion during cycle 1, Leonard recast meaning that existed originally in the linguistic mode of Malamud's novel and was articulated through focal students' small group talk, was transmediated, or translated into the visual mode of the painting,

and finally interpreted again in the linguistic mode of the whole class discussion. Without knowing the context of Leonard's comments in turns 7 and 9 during the whole class discussion below, one could easily mistake his talk as his interpretation of the painting that he created with Louise, Nick, and Tim (see Figure 6).

1. Mr. Smith: That the model of the tragic hero influenced who they are—
Macbeth and Roy. That's very important to understand. Okay? So,
let's get into our last question. That was nicely done. If Roy's only
goal was to be "the best there ever was"—that's what he says he
wants to do, be the best there ever was—why did he allow so many
things to come in between him and his goal? Nick, do you have an
idea on that?

Nick: He just got caught up in the moment. Him just being big.

Sal: He doesn't think before he acts.

Ian: He said when he was young he never experienced what it would be
or feel like to be the best and like all the things that come with it.
And it just seems like he couldn't handle everything that came
with it (???)

5. Mr. Smith: Hmm. Didn't understand the pressure. Interesting.

Ian: Yeah.

Leonard: He didn't know that being the best isn't just being the best there
ever was. There's so much more that comes with that, and his like
perception of "the best there ever was" was just to be the best. Be a
baseball player and be the best. And like finally when he let all

kinds of things come between him and his goal, he didn't really know about any of that, and then, all of a sudden that came into play, and he just had to deal with it. (???) his ultimate goal. It's like, in his way, he only thought he could be the best there ever was and be a baseball player and be amazing and that's it. But when everything else came in, he finally realized that that's what being the best there ever was, like, more comes with it.

Mr. Smith: So are you saying then that he realized too late that his private life had fed into that as well?

Leonard: Once you're the best and you're famous and things like that, you have no private life. It's gone. So you sacrifice your private life to be the best there ever was and to be like great and to be famous and things like that.

Leonard's ideas in turns 7 and 9—that Roy faced many obstacles that he did not initially realize might have impeded his ability to reach his goal to be the best baseball player who ever lived—extended the thinking of his small group's brainstorming conversation as they sought a way to represent graphically the theme “character tested by misfortune.” As I argue below, the multimodal product and the talk that accompanied the creation of that product facilitated Leonard's response.

Leonard's compelling response warrants a closer look at the multimodal focal group's painting in Figure 6. The painting, set in two “frames” depicted Roy swinging a bat on the left side of the image. Roy hits a ball that begins to slowly unravel due to a bullet hole that has been situated in the ball rather than in Roy, who was actually shot at the beginning of his career by

Harriet Bird.¹⁰ Thus, students in the multimodal focal group had already made an important interpretation through this image. By placing the bullet hole in the unraveling baseball rather than Roy, students have made a connection between misfortune in Roy's past and the "unraveling" of his career. Indeed, the scene in the novel in which Roy hits a baseball hard enough to tear the cover off was a pivotal scene after which Roy gained much attention and fame in the baseball world in which the novel is set. Thus, students played with the double-edged sword that was Roy's growing popularity—even though it brought him closer to his goal to be "the best there ever was," it simultaneously functioned as the beginning of the end of his career. As the baseball unravels in the students' painting, Roy's dream gets farther and farther away from him, transforming instead into the nightmare of his past symbolized by the bird, gun, and the image that students decided could be either Harriet Bird (who had shot Roy) or Memo (who was instrumental in leading Roy to "fix" the game that he purportedly loved so much).

Students were involved in important interpretive work as they created this image. Leonard leaned on this work during his responses during the whole class discussion above, which, after Mr. Smith revoiced Leonard's comment in turn 8, enabled him to elaborate his initial response in turn 9. The ability to qualify a teacher's revoicing is another sign of dialogic discussion, since it illustrates first that the teacher is interested in how the student is constructing

¹⁰ Louise came up with the idea to include an "abstract" bullet hole in the image during the multimodal focal group's small group discussion:

Nick: Incorporate, or put like where his gun shot would be.

Louise: Yeah. This could be, it doesn't have to be realistic, obviously. We could just make this just like an abstract kind of thing. Just like having all of the parts mesh together. . . .Or surreal, kind of. . . .

Nick: I can't even remember what surreal means.

Louise: Like it could be like surreal; we could just like have a gun shot wound right there.

meaning, but, perhaps more importantly, the move to qualify how the teacher has interpreted a student's meaning indicates that a student is invested in the making of meaning and the subtle features of language that shape literary interpretation.

One can imagine the various objects in the second frame of the painting in Figure 6 as Leonard responded with utterances such as “Finally when he let all kinds of things come between him and his goal” and “But when everything else came in, he finally realized that that's what being the best there ever was, like, more comes with it” (turn 7). In much the same way that Leonard's participation in whole class discussion during cycle 1 was facilitated by his contribution to the focal group's painting of Macbeth, the painting of Roy Hobbs promoted Leonard's interpretive thinking about the text and his dialogic participation in a whole class discussion of literature.

Although there was only one connection that was made from the small group to the whole class discourse context during cycle 2, Leonard's role in recasting meanings across sign systems facilitated the interpretive talk in which he and members of his small group engaged. The talk that facilitated the multimodal focal group's product and the product itself served to scaffold Leonard's response to an interpretive question posed by Mr. Smith during a whole class discussion of the novel that was the focus of the class's study.

In this section, I have identified how multimodal instructional activities that engaged students in processes of transmediation informed students' participation in literary discussions—a central academic literacy practice in ELA. In the next chapter, I consider the extent to which these trends in the data are linked to modality by examining what happened when students changed the instructional conditions in which they had been engaged throughout the study. In chapter 6, I also consider the roles of the small group dynamic as well as the novelty and nature

of the instructional tasks as these informed students' talk about a literary text.

6.0 CHAPTER VI: FINDINGS FROM CYCLE 3

6.1 CYCLE 3: WEEK 20

During the final cycle of small group collaborative work followed by whole class discussions, students switched the instructional condition in which they had worked throughout the semester. Thus, students who had completed unimodal activities in period 2 all semester completed a multimodal activity before a whole class discussion of Goldman's (1973) *The Princess Bride* while students who had completed multimodal activities in period 3 during cycles 1 and 2 completed a collaborative unimodal activity prior to discussing this text as a whole class. This particular aspect of my design afforded me the opportunity to further isolate the potential influences of uni- or multi-modality from the characteristics of participants as these variables informed students' talk about literature. Although this decision limited the extent to which I could examine multimodal students' engagement and participation in discussions of literature over an extended period of time, it allowed me to determine whether the patterns that had been established during cycles 1 and 2 in both conditions were maintained or changed in each condition. These findings as well as the implications that these findings may have on practice are discussed in this chapter.

6.1.1 Unimodal and multimodal small group discourse analyses in cycle 3

Due to early graduation and absenteeism among students in both periods 2 and 3, only two small groups in the multimodal condition and 3 small groups in the unimodal condition comprised the group configurations for the first day of cycle 3 (see Table 31). Although the students in each condition changed, the same general patterns of talk that had characterized the previous two cycles in each condition remained constant. Students in the multimodal condition, for example, mediated their thinking primarily by talking about the ways in which group members would go about completing the project. This aspect of mediation was coded as intersubjectivity in this study. The intersubjectivity code comprised between 40% and 60% of all multimodal group members' turns at talk in their small group discussions. These same students had until this cycle engaged primarily in metatalk to mediate their work as members of the small groups in the unimodal condition during cycles 1 and 2. As these students increased the number of intersubjectivity turns in which they engaged their metatalk decreased. These findings suggested that the mode of the small group task informed the ways in which students made sense of the task: In the multimodal condition, students were more likely to use intersubjectivity to regulate their learning.

Table 31. Cycle 3 Small Group Discussion Characteristics

Group (Condition)	Turns	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Elizabeth, Mike, Eddie (M)	311	111	35.7	13	4.2	186	59.8	9	2.9
Josh, Alan, Nathan, Luke (M)	250	108	43.2	31	12.4	103	41.2	13	5.2
Leonard, Louise, Nick (U)	632	295	46.7	224	35.4	90	14.2	24	3.8
Kevin, Hannah, Riley (U)	365	248	67.9	52	14.2	60	16.4	5	1.4
Adam, Kelvin, Tom (U)	100	46	46.0	18	18.0	33	33.0	3	3.0

The three unimodal groups in cycle 3 also transformed the primary means through which they regulated their understanding of the collaborative task. These students, who had primarily drawn upon the intersubjectivity code in their multimodal tasks during cycles 1 and 2, continued to mediate their learning primarily through intersubjective turns at talk during cycle 3, but also increased the metatalk code to closely resemble the percentage of metatalk codes that students in the unimodal condition during cycles 1 and 2 elicited (see Table 31). Thus, although the aspect of semiotic mediation that was most closely linked to the unimodal condition was metatalk and the aspect of semiotic mediation that was most closely connected to the multimodal condition was intersubjectivity, the multimodal groups in cycles 1 and 2 did not decrease their use of intersubjectivity when they engaged in a unimodal activity during cycle 3, whereas the unimodal groups in cycles 1 and 2 *did* decrease their use of metatalk when they engaged in a multimodal activity during cycle 3 (see Table 31). Students may have learned the value of intersubjectivity to regulate their learning during their small group work during cycles 1 and 2 as they completed

various multimodal tasks, but found it necessary to engage in metatalk to successfully collaborate on the unimodal task.

For example, Leonard, Louise, and Nick—students in the cycle 3 unimodal focal group—mediated their thinking primarily through metatalk during the unimodal activity (35.4%—up from 6% in cycle 2—of all small group talking turns) while maintaining their use of intersubjectivity (14.2% of all small group talking turns). Elizabeth, Mike, and Eddie—students in the cycle 3 multimodal focal group—on the other hand, increased their use of intersubjectivity (from 20.2% in cycle 2 to 59.8% in cycle 3) while their use of metatalk decreased from 31.2% in cycle 2 to 4.2% of all small group talking turns in cycle 3 (see Tables 31-36). One way to make sense of these findings is to suggest that students' participation in the multimodal activities prepared them to draw on a broader range of resources to mediate their completion of the unimodal, linguistic-mode activity, and that metatalk was only necessary in large amounts during certain kinds of unimodal tasks. Metatalk seemed to be a necessary part of small group discussions in the unimodal condition while intersubjectivity seemed to be learned through students' participation in collaborative small group activities in the multimodal condition. After learning the value of intersubjectivity in the multimodal condition, students maintained this aspect of semiotic mediation during their small group talk as they completed collaborative unimodal tasks. In the next section I provide excerpts from focal group students' talk in both conditions to flesh out the findings described above.

Table 32. Cycle 3 Multimodal Focal Group Discussion Characteristics: Elizabeth, Mike, and Eddie

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Elizabeth	77	21.8	22	28.6	5	6.5	48	62.3	2	2.6
Mike	137	38.7	48	35.0	4	2.9	79	57.7	6	4.4
Eddie	97	27.4	36	37.1	3	3.1	57	58.8	1	1.0
Mr. Smith	28	7.9	--	--	--	--	--	--	--	--
Others	15	4.2	--	--	--	--	--	--	--	--
Total	354	100	106	29.9	12	3.4	184	52.0	9	2.5

Table 33. Cycle 3 Multimodal Small Group Discussion Characteristics: Josh, Alan, Nathan, and Luke

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Josh	104	37.8	41	39.4	18	17.3	37	35.6	8	7.7
Alan	57	20.7	28	49.1	7	12.3	22	38.6	0	0.0
Nathan	54	19.6	19	35.2	3	5.6	29	53.7	3	5.6
Luke	35	12.7	18	51.4	3	8.6	12	34.3	2	5.7
Mr. Smith	22	8.0	--	--	--	--	--	--	--	--
Others	3	1.1	--	--	--	--	--	--	--	--
Total	275	100	106	38.5	31	11.3	100	36.4	13	4.7

Table 34. Cycle 3 Unimodal Focal Group Discussion Characteristics: Leonard, Louise, and Nick

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Leonard	208	30.8	118	56.7	60	28.8	27	13.0	3	1.4
Louise	268	39.6	107	39.9	101	37.7	44	16.4	16	6.0
Nick	156	23.1	74	47.4	60	38.5	18	11.5	4	2.6
Mr. Smith	41	6.1	--	--	--	--	--	--	--	--
Others	3	0.4	--	--	--	--	--	--	--	--
Total	676	100	299	44.2	221	32.7	89	13.2	23	3.4

Table 35. Cycle 3 Unimodal Small Group Discussion Characteristics: Kevin, Hannah, and Riley

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Kevin	132	34.4	93	70.5	24	18.2	14	10.6	1	0.8
Hannah	165	43.0	117	70.9	14	8.5	32	19.4	2	1.2
Riley	68	17.7	38	55.9	14	20.6	14	20.6	2	2.9
Mr. Smith	11	2.9	--	--	--	--	--	--	--	--
Others	8	2.1	--	--	--	--	--	--	--	--
Total	384	100	248	64.6	52	13.5	60	15.6	5	1.3

Table 36. Cycle 3 Unimodal Small Group Discussion Characteristics: Adam, Kelvin, and Tom

Group Member	Turns (#)	Turns (%)	Non-Coded Turns (#)	Non-Coded Turns (%)	Meta-talk (#)	Meta-talk (%)	Inter-subjective (#)	Inter-subjective (%)	Goal (#)	Goal (%)
Adam	33	28.9	19	57.6	6	18.2	7	21.2	1	3.0
Kelvin	41	36.0	10	24.4	8	19.5	21	51.2	2	4.9
Tom	26	22.8	17	65.4	4	15.4	5	19.2	0	0.0
Mr. Smith	11	9.6	--	--	--	--	--	--	--	--
Others	3	2.6	--	--	--	--	--	--	--	--
Total	114	100	46	40.4	18	15.8	33	28.9	3	2.6

6.1.1.1 Cycle 3 multimodal focal group: Elizabeth, Mike, and Eddie

A number of changes occurred during cycle 3 that may have influenced the collaborative work of the multimodal focal group. First, Natalie, a focal student in the unimodal condition during cycles 1 and 2, graduated from high school early and was therefore not present during cycle 3 instructional activities. Eddie filled in as the third focal student during this group's cycle 3 multimodal collaborative task. Mike, who was an active participant in whole class discussions but contributed rarely during the small group work with Elizabeth and Natalie (12.6% of turns in cycle 1 and 14.1% of all small group talking turns during cycle 2), took charge during cycle 3,

making 38.7% of all of the small group's turns at talk. In fact, it was fair to say that Mike delegated most of the work that took place during this group's collaborative work during cycle 3. The change in small group dynamic, the new modality of the task, the nature and novelty of the task and the text itself all lend credible explanations that could help to make sense of the unanticipated and dramatic shift in the way in which this group collaborated during cycle 3.

After Mike rejected three different ideas that would have resulted in a sculpture, a painting, and a sketch, he decided that the group would create a digital video. Through this video, students sought to "trace the development of a character from the beginning of the novel until its end" as per the directions for the activity listed in Appendix P. Mike, Elizabeth, and Eddie decided to trace the development of Westley, who, at the start of the novel worked on the farm of the family of his love interest, Buttercup, for whom Westley did anything that Buttercup asked, but who realized all too late that she also loved Westley. Nonetheless, Westley returned to rescue Buttercup from the evil Prince Humperdinck who had selected Buttercup to be his princess even though Buttercup had "sworn never to love another" (Goldman, 1973, p. 90) after receiving word that Westley had been killed at sea by pirates. Mike decided that one way to trace Westley's development, then, would be to show how Westley was at the beginning of the text and then show how different he was at the end of the text. Mr. Smith identified a concern that he had about the group's project very early on during their brainstorming activity:

1. Mr. Smith: The thing to think about—and be careful—are you retelling the story or are you demonstrating growth?

Mike: Well, you're gonna see the growth. You go from that to that. I'm not making fun of Eddie, but obviously, he's not as big as [another student in the class who plays on the football team]. So, obviously

he's grown in size. And he's going to be like more heroic. He's gonna be like "Hi, as you wish," and [the football player] is gonna come in and be like "Yeah, I run this." So he's like whispering and he's gonna come in and be loud and in charge.

Eddie: Should my character have a French accent?

Mike: Yes, for sure. Without a doubt, you should have a French accent.

5. Eddie: I can't do a French accent.

Mike: Say like "Oui, madame."

Eddie: "Oui!"

Mike: Yes, "wee" that's how you say it. There you go. You're amazing. My star. Who's gonna be the prince?

Elizabeth: The prince? No, but, that doesn't even have Westley in it though.

Both Mr. Smith and Elizabeth presented concerns in the rationale behind some of the decisions that Mike made during the creation of this video, but in the end, this was exactly how the video played out, inclusive of the random French accent that was not present in the film version of this novel nor was it implied that Westley was from a French-speaking part of the world in Goldman's novel.

Inherent in Mike's description of the project in turn 2 is the notion that the reader of the digital video would "see the growth" and therefore make the necessary meaning on her own. The problem with this approach, however, was that the heavy lifting was again left up to the reader and not the speaker, author, or in this case, screenwriter. Every scene that made its way into the final cut of this group's video could be identified in the text. The scenes in the video paralleled the sequence of events that took place in the text. In the end, the only new information that the

group added to the video was included in order to produce a comic effect. For example, Westley's French accent and Prince Humperdinck's singing of Kanye West's "Heartless" in response to Princess Buttercup leaving him for the "new and improved" version of Westley elicited an eruption of laughter when this part of the video was screened for the whole class; however, the group never articulated why they made those particular decisions.

Mike's vision for this project precluded any opportunity for transmediation to occur during this small group's collaborative work. Even when Elizabeth and Eddie made clear moves toward engaging in processes of transmediation, or the recasting of meaning from the visual sign system to the linguistic sign system, Mike prevented any such process from occurring as in the following excerpt:

1. Elizabeth: Should we show him sort of fighting with that one guy?
Mike: No, we're going to show him running.
Elizabeth: Here, we'll do this, and, then, um, we'll write a caption to show what it means.
Mike: Nope. No captions needed. We're ready to film. Alright. This is serious business now. (*shoots a piece of paper toward the wastebasket*) It went in right? It didn't?
5. Eddie: Buttercup, what are you doing?
Elizabeth: I'm not Buttercup.
Eddie: What are you doing, Elizabeth?
Elizabeth: I'm writing the little caption or whatever and I'll just write how this movie shows the change of life, or whatever.
Eddie: I guess we need some lines.

10. Mike: No we don't. There's no lines. Blah blah blah.
- Eddie: Okay, silence. Okay.
- Mike: As you wish. 10 years later. Heartless. And then Westley has to punch what's that guy.

Elizabeth's offer to provide a written rationale for the decisions that were being made in the video in turn 3 was swiftly rejected by Mike in turn 4. Although Elizabeth asserted in turn 8 that she would still write the rationale, she changed how she articulated the purpose of the written rationale from showing what the film means in turn 3 to writing "how the movie shows the change of life, or whatever" in turn 8. Eddie's attempt to contribute meaningfully to the project by writing lines for the actors in the film was also quickly thwarted by Mike in turn 10, who later suggested that Eddie and Elizabeth improvise their lines around the structure of the film that he identified in turn 12.

The excerpt above provided a snapshot of the ways in which the students who engaged in this task failed to collaborate and did not generate new meanings about the text through processes of transmediation. Upon reflection, however, the structure of the task and students' reading of the film rather than the novel may have impeded a generative transmediation from occurring during this activity regardless of the social dynamic that operated within this small group. Because of the huge popularity of the film version of this novel, and the fact that students screened excerpts from the film as they read through the novel during this instructional unit, the prompt that asked students to "demonstrate the growth or development of one particular character from the beginning of the novel to the end" (Appendix P) may simply have been too concrete a task for students who chose to use digital video as their mode of choice. Ultimately,

students re-enacted rather than demonstrated Westley's development as Mr. Smith warned against doing at the beginning of this group's brainstorming session.

6.1.1.2 The multimodal digital video

The digital video that the multimodal focal group produced was a 57-second film in three scenes. The film opened with a wide angle shot of Westley (Eddie) washing the walls of the high school hallway. Buttercup (Elizabeth) told Westley, "Farm boy, ready my horse." Westley stopped what he was doing and replied, "Oui, madame, as you wish." The camera cut out quickly and then back in for a close up of Buttercup, who said, "Oh, I love you Westley." Westley, surprised and holding his hands on his cheeks, said, "You do!?" Westley continued, "Aw" and began to move toward Buttercup. He added: "Buttercup, there's something I have to tell you. I have to go to America." Buttercup questioned, "Why?" "It's just something I have to do for myself," Westley replied. Buttercup then reassured Westley as the camera came in for a close-up on the two actors, "Oh, Westley, I'll wait for you." Westley, quite matter-of-factly, stated, "That's good to know."

A piece of notebook paper that read, "Five years later..." covered the camera lens for three seconds. The next scene began again as a wide shot of Prince Humperdinck (Elliot) and Buttercup. Prince Humperdinck wore a makeshift crown as he listened to Buttercup say, "I don't love you." Prince Humperdinck began then to sing lyrics from Kanye West's popular song, "How can you be so heartless?" Buttercup reiterated, "I will never love you." Now, with more passion, Humperdinck belted, "How can you be so heartless!" Prince Humperdinck then quickly turned to his right as the transformed Westley (Dennis), also known throughout the novel as the "man in black," approached, and Humperdinck began to sing another popular song: "Here comes the man in black." Westley tackled Humperdinck into the lockers and looked down at him as he

said, “Rub a dub dub.” Westley quickly turned to his right and sprinted down the hallway, leaving everyone behind.

Although students enjoyed creating the video, they did not recast meaning across sign systems. In fact, the digital video could be conceptualized as a unimodal product since students were translating meanings from the visual sign system of the film into the visual sign system of the digital video. The video re-enacted some of the plot elements from the film and the text, by acting out, sometimes word for word (e.g., “As you wish” [Goldman, 1973, p. 54]) the interactions that Westley experienced at the beginning and the end of the story. Unclear, however, was *how* Westley developed from the beginning to the end. Although students did zoom in with the camera on one occasion to perhaps highlight a tender or agonizing moment between Westley and Buttercup as he prepared to “leave for America,” Westley’s unexpected remark to Buttercup’s promise to wait for him (“That’s good to know”) prevented that camera work from being interpreted as purposeful. Had Mike, perhaps, promoted the use of prepared lines for the actors, however, Eddie and Elizabeth could have made creative decisions that may have potentially generated new meanings about the text.

6.1.1.3 Summary of multimodal small group work in cycle 3

Although the opportunity to engage in dialogic talk about the text to create the digital video existed during this small group’s work, the nature of the task and the social dynamic of the group prevented oppositional voices from being heard over the voice of Mike, who took charge early on during this small group’s collaborative work, and did not relinquish this power for the duration of the class period. In many ways, this group continued its pattern of conforming group members’ ideas to the structure of the medium. Students understood the task as a simple demonstration rather than a meaningful interpretation of one character’s development. The

wording of the prompt for this task was unfortunate since “demonstrate” suggested to some students that they should merely “display” what they knew about the character rather than interpret whether and how a particular character underwent a transformation over the course of the novel.

Multimodal focal group members constrained their thinking during this project in much the same way that they constrained their thinking during their essay from cycle 1 on Macbeth or their found poem about Roy Hobbs from cycle 2. In this digital video, students re-enacted the story from the blockbuster film in much the same way that they summarized all of the ways in which Macbeth could be understood as a lion in Shakespeare’s play or listed all of the words that related to ambition to create a poem about the protagonist in Malamud’s novel. Students drew on conventions within the medium to indicate changes (e.g., the “Five years later...” placard in the film, the rhetorical question to begin the essay, the use of rhyme in their found poem from cycle 2) and *performed* a summary of Westley’s development over the course of the film by illustrating how Westley acted at the beginning of the film and how he acted at the end of the film.

Unfortunately, the dynamic forces described above prevented what surely could have been an excellent learning opportunity for all three students. In my interview with Elizabeth at the end of the semester, I learned, for example, about a mural project with which she was involved. I also screened Eddie’s Multiple Intelligences project—a film in which he drew on images from nature including flowing water and forest sounds while he narrated the ways in which the images in the film corresponded with ideas that he had interpreted in Malamud’s novel. Thus, both Elizabeth and Eddie were skilled in using multimodality to express themselves and their learning, but were unsuccessful in persuading Mike, who admitted in my interview with

him that the digital video that he directed was “a joke” and that it was only meant to be funny, to take the project to “a different level.” Finally, the performative nature of this group’s digital video might suggest that this particular mode promoted a re-enactment of the film rather than an interpretation of the text. As discussed earlier, this seemed to have been an effect of the structure and wording of the task as well as the fact that students could explicitly complete the task without engaging at all in processes of transmediation through performances of scenes from the popular film version of the novel.

6.1.1.4 Cycle 3 unimodal focal group: Leonard, Louise, and Nick

For the unimodal focal group project in cycle 3, students were asked to draft correspondence letters between one of the five main characters in Goldman’s *The Princess Bride* and one of the minor characters who had had some sort of relationship with one of the main characters. Students were asked to discuss in their letters how Westley, Buttercup, Inigo, Fezzik, or Humperdinck changed from the beginning of the text until the end. For example, students could have chosen Westley who may have written to his mentor and one-time boss, the former Dread Pirate Roberts. Students were asked to write as if they were one of the characters and to include brief responses from the minor characters in which the minor characters posed questions or made comments that would be useful for the main character to know when drafting a follow-up letter. Since the structure of the task for the multimodal group seemed to have constrained students’ thinking in ways that were not anticipated, it is important to note that the structure of this task for the unimodal group seemed to have the potential to leverage students’ interpretations of the novel as well as their constructions of new texts that took the form of correspondence letters between characters despite the fact that students were limited to working within one sign system.

Leonard, Louise, and Nick continued to engage in dialogic small group talk during their collaborative unimodal project work during cycle 3. Students assisted each other in their learning, rethought their ideas about the text based on the small group dialogue that took place, co-constructed their ideas about the text, and pushed each other to think more deeply about possible interpretations based on the text. The unimodal product, however, was less interpretive than this group's previous multimodal products (see Appendix Q). In other words, the content of the letter retold elements that were unambiguously available to readers of the text rather than a transformation of meaning that could have occurred given the open-ended nature of this writing assignment.

Despite the lack of interpretation evidenced by this group's unimodal product, students in this small group exhibited dialogic features in their talk that provided a stark contrast from the small group talk in the multimodal condition during cycle 3. Interestingly, however, their ideas about how to represent Westley's development mirrored the other focal group's ideas, even though this group had discussed the development dialogically while Mike, in the multimodal condition, solely determined how Westley's development was represented. Thus, the particular structure of this task may have resulted in unimodal students' "displaying" rather than interpreting how characters developed in this condition as well. Nevertheless, students in the unimodal focal group built on the dialogic discourse norms that they had practiced while completing collaborative multimodal tasks during cycles 1 and 2. Some of the dialogic features of students' talk below included students taking on the role of reminding others about the differences between summarizing elements of the story and interpreting a character's development (turn 7), making non-strategic concessions (turn 9), taking up others' ideas (turn 10), and pushing each other to represent their ideas most clearly (turn 12):

1. Louise: Okay. Brainstorm at least three examples from the text that demonstrate how one of the following characters has developed.
- Nick: Westley goes from being farm boy to the hero, I guess.
- Louise: He goes from a farm boy to a pirate, to a hero. Why don't we put farm boy-pirate-hero. Yeah.
- Leonard: I'm puttin' legend after that.
5. Louise: Buttercup. We could put that she=
- Leonard: =Falls in love with farm boy.
- Louise: That's not really. No. That's not like a character development, that's just something that happens in the story.
- Leonard: Character development. She goes from like commanding him around to actually falling in love with the dude.
- Louise: Oh, okay, alright. I see what you mean now.
10. Nick: Like being a dictator to.
- Louise: To being a dictator to. Yeah. That makes sense. You're right. I apologize.
- Nick: How are we gonna word that?

The similarities between the two focal groups in terms of their ideas for tracing the development of Westley in the novel were striking. Both groups picked up on Buttercup's authoritative stance toward Westley at the beginning of the text. Both groups also highlighted how Westley and Buttercup's love for each other characterized the end of the novel. Both groups oriented themselves toward the task in such a way that would have made interpretation unlikely. As Nick and Louise stated in turns 2 and 3, respectively, Westley's growth was seemingly linear and

chronological: (a) Westley was a farm boy at the beginning of the story, (b) he became a pirate for a little while, and (c) he then returned a hero. The exchange in turns 7 and 8 illustrated how the group was struggling to figure out how to interpret what seemed on the surface to be a task that only required a plot summary as it influenced a particular character's development.

However, these ideas occurred during the first 12 turns of the unimodal focal group's project work, whereas this same take on the novel was the result of 30 minutes' worth of talk in the group led by Mike in the multimodal condition. Additionally, Leonard, Louise, and Nick did not settle on this idea as the final idea for their project, but continued to brainstorm alternative correspondences that illustrated how a main character in *The Princess Bride* developed over the course of the novel.

The dialogic nature of this small group's talk about the text prevented one person from identifying the easiest way out and pushing forth an unquestioned agenda. In turn 7, for example, Louise demonstrated her internalization of a dialogic discourse norm that had been established earlier in the semester by Mr. Smith. Louise challenged Leonard's contribution that Buttercup falls in love with the farm boy by identifying that as an element of the plot—something that took place in the novel rather than their interpretation of one character's development. This objection allowed Leonard to elaborate his idea in turn 8, identifying how falling in love was the end point of a complicated trajectory in the relationship between Buttercup and Westley. Louise then admitted to misunderstanding Leonard's original intention and Nick took up Leonard's idea by calling Buttercup a dictator at the beginning of the novel. The last turn in the passage above functioned as another instance in which focal students in this group, after engaging in two cycles in the multimodal condition, provided evidence for their internalization of dialogic discourse norms for their group and their classroom. In turn 12, Nick pushed other members of his group to

consider the ways in which the idea that they had just generated could be translated into a letter so that the group could accomplish the goal of the task assigned to them.

The focal students brainstormed possible approaches to writing letters from each of the five perspectives listed on the assignment sheet (Appendix P). Although most small groups decided rather quickly on the correspondence that they would write, the fact that this focal group considered all of the options, led them to engage in dialogic exchanges not present in the conversations that took place among students in other small groups in both conditions. In the following example, all three focal students considered how they might characterize the development of Westley throughout the novel. Students drew on evidence from the text to make interpretations about characters' development in *The Princess Bride*:

1. Louise: What about Westley? I think he became more. Well, obviously, I think he realized his potential when he met Buttercup. I think before he didn't think he was good enough for her but then he started to realize his potential. Does that make sense? Then he did all these amazing things.

Leonard: I feel like at the end he's too good for her. Even though no matter what you're getting married to Prince Humperdinck, like, she should have done so much more to be with him. 'Cause she relied on Prince Humperdinck. The one she didn't even love, she relied on. Like, you know, I'm gonna write this letter, you're gonna send it to him. He's like, I will do that. I mean.

Nick: But didn't he offer to do that?

Louise: He offered to do that.

5. Leonard: But she was writing the letter.
- Louise: But then, too, the thing is, he's like known throughout the land as being like even though he's like rude and mean, he still wouldn't break a promise. And for her, like back then, she wasn't very smart.
- Leonard: She did get smart. Buttercup.
- Louise: That's the thing. She started by like being dumb, and then she became smarter, I think.

As students engaged in the conversation above, they became more critical of characters and the decisions that characters made throughout the novel. Specifically, students called into question how Buttercup could have trusted Prince Humperdinck to actually fulfill a promise to deliver a letter to Westley when Buttercup must have known that Westley's reception of this letter would not have been in the best interest of Humperdinck, who had until that point in the novel exhibited few traits that were not self-serving.

Unsatisfied with their brainstorming about Buttercup, the group moved on to consider and complete what they identified as a "tough" correspondence—a distinct difference between other groups who actively searched for the easiest path to completion:

1. Louise: What about Fezzik? What's another one for Fezzik?
- Nick: I don't know about that.
- Louise: Yeah. That one's tough. He, I wanna.
- Leonard: He's the same throughout the novel until he starts to think for himself.
5. Louise: I mean he starts to think for himself, but, yeah, he doesn't really

- Nick: Does he need the rhymes anymore?
- Leonard: He did. I think he always does. It makes him feel better.
- Louise: It's not like he needs them. Like he uses them to remember things that, I don't know.
- Leonard: Put independent for him.
10. Louise: What?
- Leonard: Independent. He goes from like relying on everyone to independent.
- Nick: But that could also be...no.
- Louise: Yeah. He starts to be more independent by the end of the book.
- Leonard: At the end, he's left with Westley and Inigo's like, "I need you." And he goes to help him, Westley leaves, he's on his own to do what he did. And for himself, he thinks for himself by getting the horses, but then also he does stuff by himself.
15. Louise: Yeah, he's independent. Those two go hand and hand.
- Leonard: Before he met up with Inigo, he was doing shit for himself.
- Louise: Yeah. No, that's actually a good point. Yeah, 'cause he was on the Brute Squad. So he did do things for himself by the end of the book. More or less. Buttercup. We could also put Buttercup went from not caring to caring about how she looked. I mean that's a real easy one.

This exchange in which students deliberated the ways in which they could characterize Fezzik's development throughout the novel featured students' use of the text to provide evidence for

Leonard's claim in turn 4 that Fezzik—a giant with a gentle personality and a habit of easing his anxiety by creating rhymes out of what other characters said—stopped merely following others at the end of the novel and began to think for himself. Louise pushed back immediately, suggesting that Fezzik was actually still quite the follower at the end of the story in turn 5. After some debate about the actual status of Fezzik's independence, Leonard returned to the text in turn 14, identifying some of the actions that occurred in the text that supported his point of view. Ultimately, Louise was persuaded that Leonard was accurate in claiming that Fezzik was independent at the end of the novel and identified another element of the text in turn 17 that supported this perspective—Fezzik's role on the Prince's Brute Squad, which Fezzik joined after finding himself alone.

6.1.1.5 Letter from Inigo and Fezzik to Vizzini

Although the small group talk exhibited the dialogic features identified above, the product that emerged from this talk resembled a summary of plot elements within the text and incorporated many of the structural features that were present in the unimodal focal group's work in cycles 1 and 2, and the multimodal focal group's work in cycle 3.

Louise and Nick worked primarily on the letter from Inigo to Vizzini while Leonard drafted the letter from Fezzik to Vizzini. Thus, these students, despite their dialogic talk about the text failed to follow directions to produce a correspondence, and rehashed actions from the plot rather than built upon the interpretations that were generated during the small group talk to trace the development of both Inigo and Fezzik. Not unlike the multimodal focal group's use of popular sayings in the film based on this text (e.g., Westley's use of "as you wish" in the focal group's video), the focus of this letter is on relaying the important information that Inigo has finally killed the man who killed Inigo's father. The first letter ends with Inigo's famous line,

“Hello, my name is Inigo Montoya.” Instead of completing the line as he had practiced in preparation for the day when Inigo would have the opportunity to avenge his father’s death with “You killed my father. Prepare to die,” Inigo, in the group’s letter stated “And I killed the 6 fingered man.” Fezzik’s letter to Vizzini repeated the essential plot elements related to Fezzik’s character in the novel and ended by stating the interpretation that Leonard and the group had deliberated rather than conveying how Fezzik became more independent by the end of the novel. In that respect, the group’s dialogue about the text was a more accurate measure of the group’s understanding of the novel than their unimodal product represented (see Appendix Q).

This transformation in the interpretive quality of this focal group’s product might be explained by the mode of the task, but was probably even more powerfully influenced by the structure of the task. Since this group created such compelling representations of new meanings from the texts that they had read during cycles 1 and 2, the literal quality of this group’s product in cycle 3 was remarkable. Although students discussed the difficulty, even “impossibility” of writing during their collaborative drafting of these letters, an alternative structure for this unimodal task might have resulted in a product that generated new meanings about the text, as this group had constructed during cycles 1 and 2. The focal groups in both conditions did not recognize the interpretive potential inherent in the tasks as they understood them, and, thus, constructed literal responses to the task’s prompt.

6.1.1.6 Summary of unimodal and multimodal small group talk in cycle 3

Students’ work in the multimodal condition during cycles 1 and 2 established dialogic discourse norms that appear to have shaped students’ talk in cycle 3. Although the product was illustrative of the text rather than generative in terms of meaning making, students talked dialogically about the ideas in the text prior to fitting these ideas within the written genre of the letter

correspondence. The discourse norms set in cycles 1 and 2 in the unimodal condition carried over into cycle 3 when Elizabeth, Mike, and Eddie had the opportunity to create a multimodal collaborative project. A focus on conforming the focal students' ideas into the mode of the task constrained the types of meanings that this group generated. These findings support previous research that highlights the importance of setting discourse norms early on during the semester (Rex & Schiller, 2009), but extends this research to include the discourse norms that are established in small groups. The mode of the tasks in which students engaged during this project informed how they allowed their ideas to drive the type of work that they completed or how they constrained their meaning making in order to fit what group members perceived to be the preferred structural features of a given mode. These findings provide additional support for the notion that talk in one discourse context (multimodal collaborative project work) can serve as a scaffold for students' talk in other discourse contexts (whole class discussion) or to engage in other types of tasks (writing) (Brooks & Donato, 2004; Rogoff, 1990).

6.1.1.7 Comparing unimodal and multimodal small group work in cycle 3

Neither the unimodal nor the multimodal focal group products that were produced during cycle 3 extended the interpretive potential of *The Princess Bride*. Both products retold elements of the story and lacked the capacity to become thinking devices in and of themselves, which could have provoked additional perspectives on the text. The particular structure of the task framed the group's work, however, in important ways. The use of words such as "trace" and "demonstrate" might have suggested that students were supposed to be engaging in a routine activity that is done in many secondary English classrooms across the country: *display* their understanding of the text (Nystrand & Gamoran, 1991). The task structure for both conditions during cycle 3 simply did not lend itself to the interpretive opportunities that were available during cycles 1 and

2. As a result, the unimodal and multimodal products examined in this section represented the literal rather than generative transmediation of text (Siegel, 1995). Figures 1 and 6, by way of contrast, represented generative transmediation from the linguistic mode of their respective texts to the visual mode of the paintings. The paintings themselves can and were used as thinking devices that students drew on during their whole class discussions of literature.

An importance difference did exist between these two focal groups' discussions, however. As the unimodal focal group completed their letters, their discussion was characterized by multiple dialogic exchanges in which students appropriated the discourse norms promoted by Mr. Smith during whole class discussions at the beginning of the year and reproduced on every discussion sheet that students received throughout the semester. The conversation in the multimodal focal group, on the other hand, was characterized by one voice—Mike's—and the lack of perspectives taken on the text. For Elizabeth and Mike, who had completed two cycles of unimodal work in which their talk exhibited few markers of dialogic discourse, their participation in a multimodal activity did not change their tendency toward monologism. For Leonard, Louise, and Nick, who had previously engaged in two cycles of collaborative multimodal small group work, their participation in a unimodal activity exhibited their internalization of the dialogic discourse norms of their classroom. These findings are compelling because they reaffirm the importance of establishing an inquiry stance toward literature early in the semester within small group, student-led and whole class, teacher-led discourse contexts *and* they support the use of multimodal activities as a scaffold to promote students' internalization of dialogic discourse norms.

6.1.2 Cycle 3 whole class discussions

The whole class discussion of *The Princess Bride* during cycle 3 resulted in increases along some dimensions of dialogism for period 2 (the multimodal group in this cycle) and had a plateau effect along dimensions of dialogism for whole class discussions in period 3 (the unimodal group in this cycle). These trends in the data are intuitively appealing: engaging in multimodal preparatory activities during collaborative small group tasks co-occurred with an increase in the number of interpretive moves made by a class that had up until cycle 3 engaged in unimodal small group activities prior to whole class discussions. At the same time, students who had engaged in multimodal small group activities during cycles 1 and 2 engaged in whole class discussions at a comparable level after completing a collaborative unimodal small group activity. Before I present illustrative examples to characterize the whole class discussions in both conditions, I include an analysis of the descriptive statistics that inform the discourse analyses presented in the next section.

Comparisons between period 2 and period 3 whole class discussions yielded few robust differences in terms of the kinds of discourse moves made by students during cycle 3 (see Table 37). Generally, student data across the codes for dialogism and monologism are comparable with a few notable exceptions. First, students in the unimodal condition took 45 more turns at talk than students in the multimodal condition. Not all of these turns were necessarily dialogic in nature, however. Talk by students in the unimodal condition, for example, included 28 intertextual moves, 10 unconstructive challenges, and 35 unelaborated responses. These are the highest numbers for this group since the baseline discussion that occurred at the beginning of the semester. Additional notable differences existed between the two groups in terms of the way in which they evidenced their claims. Students in the multimodal condition made more inferences

during this discussion than they had during any discussion this semester. Students in the unimodal condition provided evidence from the text to support their claims during discussion; this finding also illustrated a deviation from this group’s typical practice of using inferences to support their responses (see Table 38).

Table 37. Number of Student Moves During Cycle 3 Discussion by Condition

Coding Categories	Multimodal	Unimodal
Extension/Elaboration	24	27
Perspective Taking	14	14
Student-Generated Question	3	4
Uptake	2	3
Challenge	4	9
Nonstrategic Concession	0	1
Collaborative Classroom Culture	0	1
Intertextual Reference	15	28
Evidence Source—Inference	21	12
Evidence Source—Prior Knowledge	4	13
Evidence Source—Text	22	28
Reasoning—Character	11	15
Reasoning—Event	6	17
Reasoning—Hypothetical	10	3
Reasoning—Language	4	2
Reasoning—Personal	19	35
Unconstructive Challenge	1	10
Unelaborated Response	25	35
No Code/Off Task	7	7

Also worth noting was the increase in the use of personal reasons during students’ responses in the unimodal condition during cycle 3. Not only did the 35 personal reasons overshadow the 19 personal reasons in the multimodal condition, but also this number was five times the number of personal reasons provided by these same students during cycle 2 (see Table 38). Coupled with the decrease in this group’s use of reasons based on a character in the text (from 37 reasons in cycle 2 to 15 in cycle 3), these data point toward the role of the multimodal task as it promoted inference-based evidence and reasoning based on characters in the text—both

analytical skills that promote dialogic discussions of text by articulating *ideas* that can be discussed and supported or challenged rather than personal responses to a text, which may be more difficult to challenge and defend in a way that promotes the collaborative and constructive culture of a classroom.

Table 38. Overview of Student Moves Across Baseline, Cycle 1, Cycle 2, and Cycle 3 Discussions

Coding Categories	Baseline Period 2	Baseline Period 3	Cycle 1, Uni-modal	Cycle 1, Multi-modal	Cycle 2, Uni-modal	Cycle 2, Multi-modal	Cycle 3, Multi-modal	Cycle 3, Uni-modal
Extension/Elaboration	32	35	26	36	12	21	24	27
Perspective Taking	8	15	4	12	16	24	14	14
Student Question	4	4	5	10	2	10	3	4
Uptake	2	0	5	14	0	1	2	3
Challenge	1	7	5	5	3	9	4	9
Concession	1	0	0	0	0	1	0	1
Classroom Culture	0	0	2	8	1	7	0	1
Intertextual Reference	1	1	14	7	0	7	15	28
Evidence Source—Inference	24	26	18	34	16	40	21	12
Evidence Source—Prior Knowledge	5	8	23	11	4	12	4	13
Evidence Source—Text	12	12	9	22	14	14	22	28
Reasoning—Character	13	24	15	27	14	37	11	15
Reasoning—Event	9	8	5	21	13	10	6	17
Reasoning—Hypothetical	9	1	9	11	6	14	10	3
Reasoning—Language	1	0	0	1	0	2	4	2
Reasoning—Personal	5	12	20	9	5	7	19	35
Unconstructive Challenge	2	0	3	1	3	9	1	10
Unelaborated Response	39	50	34	27	19	28	25	35
No Code/Off Task	14	10	36	10	4	16	7	7
Total	104	122	134	130	60	133	97	142

Table 39. Number of Teacher Moves During Cycle 3 Discussion by Condition

Coding Categories	Multimodal	Unimodal
Revoicing/Accountable Talk	18	10
Uptake	8	13
Scaffolding	3	4
Establishing Discourse Norms	17	10
Just in Time Information	0	2
Modeling	3	0
Intertextual Reference	5	1
Providing Information	3	10
Repeating Question	2	1
Evaluation	1	0
Display Question	7	1
No Code	4	10

Table 40. Overview of Teacher Moves Across Baseline, Cycle 1, Cycle 2, and Cycle 3 Discussions

Coding Categories	Baseline Period 2	Baseline Period 3	Cycle 1, Uni-modal	Cycle 1, Multi-modal	Cycle 2, Uni-modal	Cycle 2, Multi-modal	Cycle 3, Multi-modal	Cycle 3, Uni-modal
Revoicing	15	8	18	1	7	12	18	10
Uptake	10	13	1	2	5	9	8	13
Scaffolding	9	10	3	5	1	0	3	4
Discourse Norms	12	17	12	11	9	11	17	10
Just in Time Info	2	4	2	4	0	1	0	2
Modeling	0	3	1	1	3	0	3	0
Intertextual Ref.	0	0	0	0	0	0	5	1
Providing Info	6	4	6	2	3	4	3	10
Repeating	1	3	3	2	7	11	2	2
Evaluation	0	0	0	1	0	1	1	0
Display Question	2	4	1	0	0	1	7	1
No Code	8	7	9	6	1	5	4	10
Total	66	74	57	35	36	55	71	63

Teacher moves during cycle 3 were comparable in both conditions (see Table 39). More importantly, perhaps, Mr. Smith increased the number of dialogic move that he made in both conditions during cycle 3 (see Table 40). This finding suggests that Mr. Smith became more adept at recognizing the most effective ways for him to facilitate students' dialogic interactions

in both periods 2 and 3. To take one example, Mr. Smith was able to both synthesize and uptake in one teacher move, which illustrated not only his interest and engagement in students' ideas, but also showed his skillful use of students' ideas to extend the discussion and deepen students' consideration of the text as in the following excerpt:

1. Mr. Smith: Beowulf is an epic hero and Grendel is a villain, right? So if we're thinking about epic heroes specifically, Westley and Beowulf, how are they alike since they're both epic?

Leonard: I just think the way they're represented makes them different, but overall they're alike; they're doing it for like, Westley in a way is doing it for the greater good, but also, like for himself. And then Beowulf is doing it for himself to get all the glory and that. He's also doing it for the people that Beowulf is fighting for in the town. But the way that um you find out about Westley being a hero and all the things he did later on. Beowulf, right off the bat, you find out about that. The way both of them are (?) heroes are kind of different. 'cause I feel like in the stories, they're told to be heroes.

Ian: Just basically, Westley does it for love and all of that so that's why he's different from like all the others. That's his main purpose (??).

Mr. Smith: So from what I was hearing from Leonard was kind of like Beowulf we just know and Westley we sort of have to discover.

5. Leonard: But overall, the idea, like they're both similar heroes. You just have to find out by reading the book.

Mr. Smith: And then, Jake, for you, is there, going off his question, or his comment, for anybody, is there something about Westley being motivated by love that is more distinctly modern? Why is that?

After posing his initial question in turn 1, Mr. Smith listened as Leonard, first, and then Ian contributed responses. He revoiced Leonard's contribution, which also had the function of summarizing his contribution in turn 4, before using the contribution from Leonard to engage Ian's response about Westley's particular motivation and ask a new question that built off of both of these students' responses: "Is there something about Westley being motivated by love that is more distinctly modern? Why is that?" Thus, the kinds of follow-up questions that Mr. Smith posed during cycle 3 were substantively different from the most frequent follow-up question during the baseline discussions: "Why?"

Students in period 3—the unimodal condition during cycle 3—generated more interpretations, took more turns at talk, and participated in more dialogic spells than students in period 2 (see Table 41). Students in the cycle 3 unimodal instructional condition also generated more dialogic spells during their whole class discussion of *The Princess Bride* than any other whole class discussion in either condition during the semester. This data point seemed to support the notion that students in this condition were able to engage in whole class discussions of literature with the same learning outcomes that were evidenced by their dialogic interactions and interpretations of literary texts regardless of the small group instructional condition that preceded their whole class discussion. Discourse analyses of the whole class discussions suggested a more complex explanation, however.

Table 41. Characteristics of Cycle 3 Discussion by Condition

Characteristics	Multimodal	Unimodal
Total number of pre-planned discussion questions	5	5
Total number of questions posed by the teacher	57	36
Total number of student interpretations	59	82
Total number of student turns at talk	97	142
Total number of teacher turns at talk	71	63
Average length of teacher response (words/turn)	27.7	23.6
Average length of student response (words/turn)	20.4	18.4
Total number of dialogic spells during discussion	7	17

Table 42. Characteristics of Baseline, Cycle 1, Cycle 2, and Cycle 3 Discussion by Class Period

Coding Categories	Baseline Period 2	Baseline Period 3	Cycle 1, Unimodal	Cycle 1, Multimodal	Cycle 2, Unimodal	Cycle 2, Multimodal	Cycle 3, Multimodal	Cycle 3, Unimodal
Questions planned	3	3	5	5	5	5	5	5
Questions posed	52	51	30	25	30	47	57	36
Student interpretations	45	58	52	70	31	63	59	82
Student turns	104	122	134	130	60	133	97	142
Teacher turns	66	74	57	35	36	55	71	63
Teacher (words/turn)	31.7	33.2	32.3	26.0	44.4	27.7	27.7	23.6
Student (words/turn)	21.1	21.4	16.7	30.8	23.5	20.5	20.4	18.4
Dialogic spells	8	8	15	16	5	14	7	17

6.1.2.1 Unimodal and multimodal whole class discussion discourse analysis in cycle 3

Table 38 highlights the code that pervaded the whole class discussion in the unimodal condition during cycle 3: intertextuality. One student in particular, Addy, took approximately 25% of all student turns during the whole class discussion. Half of Addy's turns were coded as intertextual references. In response to questions about *The Princess Bride*, Addy made intertextual references to (a) her math teacher, (b) horror film characters Michael Myers, Jason, and Freddy Krueger, (c)

Stephen King's *Misery*, (d) Harry Potter, (e) *The Great Gatsby*, and (f) the television series "The Office," among many others. Not unlike the baseline discussions, Mr. Smith's attempts to encourage students to connect these references back to Goldman's novel were unsuccessful. Many of the dialogic spells that occurred during this whole class discussion dealt with students' talk about these films, television shows, or characters in other texts, then. Eventually, Mr. Smith made it obvious to the class that he wanted to stick to the text and not entertain what turned out to be tangential remarks by Addy as well as others that prevented the class from addressing the discussion questions as thoroughly as they could have. Although Mr. Smith and I had included a question that asked students to compare elements of the text with the film version of the novel that the class had screened during the week of the whole class discussion, neither of us anticipated that question to take the discussion as far away from the text as it seemed to have done.

The whole class discussion in the multimodal condition approached the kind of discussion that characterized the multimodal whole class discussions during cycle 1 and cycle 2, but fell short of fleshing out the ideas in the way that students like Leonard, Ian, and Louise, who made connections between their small group talk and the whole class discussion were able to do during cycles 1 and 2. To bury the metaphor once and for all, there seemed to be too much "wind" to effectively "spark" a dialogic fire in this discussion. Interfering with this process were 15 tangential intertextual references that drew students away from the text that was the focus of their discussion, distractions among students (turn 12), and clichés that functioned as truisms against which other students could not argue (turns 8 and 16):

1. Mr. Smith: So if we think it's a satire, what does it satirize? What's it trying to point out to us?

Josh: It's kinda trying to point out how our ideas have changed from back in the times when the story takes place when there were knights in shining armor and men in black. It's pointing out how now we don't really have as much adventure, fantasy, or even romance as have been.

Mr. Smith: Is that a bad thing? Should we want some of those things again? Do you want some adventure in your life, Eddie?

Eddie: Uh.

5. Mr. Smith: Do you want something big, adventure, romance? Does that matter to us, individually? Bella, do you want adventure in your life?

Bella: Yeah.

Mr. Smith: Okay. So if it's pointing out that we want those things, why did we give them up? Our children stories remind us about adventure and things like that. Why do we give up on it?

Mike: You gotta grow up sometime.

Mr. Smith: What do you mean?

10. Mike: Well, that's the whole thing with like adventure and stuff like that, quests, dragons and stuff like that don't really exist and you can't die and come back to life. You have to go to work and make money and stuff like that. You can't just live.

Mr. Smith: So why is the daily task of living and making a living, why is that not filled with adventure or romance for a lot of us?

Laura: Well, it is, it's just not as exciting. (*looks out window*) There's

Amy. Hi!

Mr. Smith: Laura, finish that, that was good stuff.

Laura: Um, there is, it's just not as exciting as dragons, being tortured. I mean, you get tortured at work, fall in love at work, fight mean, evil people at work. There's all these things, it's just not as exciting. We take it for granted. Our lives to Westley and Buttercup might seem more interesting than their own lives.

15. Mr. Smith: Interesting. What would we have that they find so different, so exciting? Okay. Something to think about. Why do we all want what we can't have.

Laura: We just do. It's human nature.

Had students been able to engage these ideas in the text more thoroughly in their small group collaborative activities, the substance needed for a dialogic discussion might have opened dialogue for the exploration of multiple perspectives and the ways in which the text supported or contradicted students' ideas rather than relying on monologic comments that shut dialogue down.

6.1.3 Cycle 3 connections across discourse contexts

Two connections were made between small group and whole class discourse contexts during cycle 3 (see Table 43). Both connections were made by focal students in the unimodal condition. Leonard and Louise, who took the most and the third most number of turns during the whole class discussion, drew on their small group talk about Fezzik the giant's development in *The Princess Bride*. Interestingly, Leonard and Louise, who, during their small group talk had decided that Fezzik had truly transformed and become an independent thinker as articulated

throughout the group's correspondence letters in Appendix Q, did not seem surprised after the class read the ending of the novel and Mr. Smith pointed out that many of the main characters in the novel seemed to go back to their old ways of being even though they had undergone some transformations. Both Louise and Leonard agreed that this was the case although it contradicted everything they wrote about in their unimodal project. Thus, Leonard and Louise leaned on the talk that took place during their small group discussion, but did not use the unimodal project as a thinking device to facilitate their participation in the whole class discussion of *The Princess Bride*:

1. Mr. Smith: Right before lunch we finished the book, the reading. We noticed it ended different from how the movie ended. So looking back to question number 3 here. Okay. What is surprising about the ending of the book? It's supposed to end happily ever after in the original, the way his father told it to him. Then the real ending is unresolved. So, what is surprising about the ending? And then, as he says at the end, do we agree that life isn't fair in his sort of final statement?

Addy: I agree.

Mr. Smith: First of all, what was surprising about the way this book ends.

Leonard: I didn't find it surprising.

5. Mr. Smith: Okay, why not?

Leonard: Because the whole entire book was that way.

Phil: He should have been killed by the sucking machine.

Mr. Smith: The whole entire book was that way how?

Leonard: It was, but it wasn't because of how everything else was. Like you had two different authors. You had them talking about all this junk about what would never happen, won't happen, it's impossible, things like that. Then you finally come to the end and it's not like a fairytale. 'Cause the book itself is like a fairytale, but it's not a fairytale.

10. Mr. Smith: And so in a way he then talks about Inigo, he's still hurt, he's still bleeding; Westley, relapsing; Fezzik makes a mistake—how does this connect to the characters as we know them?

Louise: It shows their characteristics. Like Fezzik can't do anything by himself, he goes the wrong way; Well, Westley, I mean that's part of the story, it's not really anything that shows character or personality. And Inigo either; he's still really hurt.

Mr. Smith: Did it have anything to do with how they've changed or developed from the beginning of the story?

Louise: What do you mean?

Mr. Smith: The way it ends, the way we imagine what might have happened to them. Does it have anything to do with, you know, as they began the story, they were one way and then changed? Does it show that they did change or is there something else going on?

15. Leonard: Well Fezzik went back to how he was, like how he gets lost. Then he goes like he needs to be around other people. And then finally when he does, he gets himself like relying on himself. But then

right at the end, he doesn't know where he's at; he makes a wrong turn. 'cause he tried doing it by himself and he can't. So I think Fezzik went back to his normal ways, like after he changed.

Mr. Smith: Alright, so let's revisit question number 2 real fast. So we've basically dealt with questions 1 and 3 already. So if you don't have anything written down, record it under that.

Although Louise connected ideas between her small group conversation and the whole class discussion in turn 11, the content of her utterance contradicted the central message of the unimodal project that she completed with her small group. Leonard, as well, in turn 15, accepted Mr. Smith's interpretation that the characters in Goldman's novel reverted to their old ways at the very end of the *The Princess Bride*. Had students considered the ending of the novel more carefully during their small group work, it is likely that the content of their product would have reflected a different understanding of the text. Having realized this potential misreading seemed to have resulted in students' immediate concession to the teacher's point of view. One potential reason why students might have failed to identify the possibility that Mr. Smith focused on during the whole class discussion was that students did not read the ending of the text, but were basing their responses about Fezzik's development on their screening of the popular film instead. It's not possible to make any claims in regard to how these students would have responded in this whole class discussion after completing a multimodal project instead of the letter correspondence, but their previous data from this study suggest that the product would have elicited a transformation of the text that was not present in this group's unimodal product. In any event, students did not take advantage of this opportunity for dialogism during the whole class discussion.

Table 43. Student Participation and Connection of Ideas Across Discourse Contexts in Cycle 3

Student	Group	Condition	Small Group Talking Turns (%)	Mediating Small Group Talking Turns (%)	Whole Class Talking Turns (%)	Connections
Elizabeth	MFG	M	21.8	71.4	0.0	0
Mike	MFG	M	38.7	65.0	26.8	0
Eddie	MFG	M	27.4	62.9	3.1	0
Josh	JANL	M	37.8	60.6	17.5	0
Alan	JANL	M	20.7	50.9	0.0	0
Nathan	JANL	M	19.6	64.8	0.0	0
Luke	JANL	M	12.7	48.6	0.0	0
Leonard	UFG	U	30.8	43.3	26.8	1
Louise	UFG	U	39.6	60.1	10.6	1
Nick	UFG	U	23.1	52.6	0.7	0
Kevin	KHR	U	34.4	29.5	3.5	0
Hannah	KHR	U	43.0	29.1	1.4	0
Riley	KHR	U	17.7	44.1	0.0	0
Adam	AKT	U	28.9	42.4	16.2	0
Kelvin	AKT	U	36.0	75.6	0.7	0
Tom	AKT	U	22.8	34.6	0.7	0

The experiment of cycle 3 (i.e., switching the instructional condition for each group of students) complicated any straightforward interpretations about students' learning that the trends in the data from cycles 1 and 2 might have offered. The complication that occurred highlighted the important roles played by the nature of the task as well as the interpretability of the literary text under study. Students in both focal groups interpreted the task as an opportunity to display already learned material rather than create new meaning based on their current understandings. The products that resulted in both conditions illustrated this understanding. When compared to the previous texts considered during this study (*Beowulf*, *Grendel*, *Macbeth*, *The Natural*), *The Princess Bride* seemed to have lacked some of the ambiguity that might have facilitated students' interpretive stances toward these other texts. Coupled with the fact that students screened the film version of the novel, the literal nature of students' unimodal and multimodal productions

might be explained by the fact that students might have felt as if there were little left to say about the text that hadn't already been said.

Cycle 3 was characterized by a number of unexpected qualities that shaped the ways in which students in both conditions talked about and, thus, learned about *The Princess Bride*. The classroom-based research presented in this chapter illuminated many of the factors that shape how and whether students learn about literature including the social environment of the small group and whole class discussion groups (e.g., whether the focal group remained intact across all three cycles), the influence of singular students such as Mike and Addy as their behavior shaped other students' opportunities to learn, the language and structure of the task, and, finally, the interpretability of the text.

7.0 CHAPTER VII: INTERVIEWS

Interviews were conducted with four of the six focal students. Natalie, a student in period 2, did not complete an interview because she graduated from River Valley a week before the end of the semester when I conducted the interviews. Nick, a student in period 3, began the interview but was called away by the main office so that he could participate in a practice graduation ceremony. Nick, too, was scheduled to graduate at the midpoint of the academic school year. As a result, I conducted semi-structured interviews with two students in each condition: Mike and Elizabeth from period 2, and Louise and Leonard from period 3.

Using the protocol in Appendix C, I interviewed each student for approximately 25 minutes. I conducted the interviews in a quiet unoccupied media room next to the librarian's office in the main library of River Valley High School. Prior to each interview, I gathered the unimodal or multimodal products that students had completed and made them available as JPEG images or videos on my laptop computer or in hard copy format. I asked students to review these products prior to responding to certain questions to refresh their minds about the work that they had done in Mr. Smith's classroom throughout the semester. After transcribing audio files of the interviews, I used an open coding process to identify 18 themes across all four interviews. I consolidated these themes into three themes for students in each class period for a total number of six themes. Each one of the themes below was mentioned by more than one student and reoccurred throughout each interview transcript.

7.1 THEMES

7.1.1 Speaking in small groups prepared students to speak in larger groups

The notion that small group talk facilitated students' participation in whole class discussion was the only theme that was identified in every interview transcript. Both Mike and Elizabeth commented on the risks involved in participating in whole class discussions and the relative ease with which they spoke in small groups with people they knew or may not have known as Elizabeth articulated below:

These little projects helped me, 'cause like I said, it helped me kind of consider different opinions and ways of looking at it than I would have myself. And I think talking about it in a smaller group first kind of opens you up more than jumping straight into a whole class discussion. And for people like me who, with people I'm not familiar with, it's kind of hard to jump into a whole class discussion and talk about my interpretations because sometimes I feel like what I have to say, other people might think is stupid.

Elizabeth's comment revealed the value of providing students with the opportunities to think through their ideas by speaking in "safe" classroom spaces. Having already had an idea validated by others in a small group encouraged students to take the risk of "jumping in" to a whole class discussion.

Leonard and Louise's comments on this topic focused on the intimate space that existed within a small group and how this space allowed for students to explore one idea in depth:

Louise: And so being in a small group, and being able to be more intimate and just have like one thing to worry about, you can go much, much more in depth with that. So, in the

whole class discussion, you can be like, “Oh, I remember this part from yesterday. That was really cool. Let me share it with you guys,” kind of thing.

Leonard: You like focus on one thing in like a little discussion group. You focus on one thing in so many ways ‘cause you’re only focusing on that one thing. So when it’s time for you to present that part, or, you know participate in the class, you’ll have all those ways that you did that. And for someone who doesn’t learn, can’t learn it like in one way, when you’re doing it in that little group, you try to broaden it all the way so that everyone can understand it and like what you thought. So in like that way, it’s like everyone can understand the one thing that happened. And so it makes everyone more intelligent and things like that.

Clearly, students in both conditions valued the opportunity to work in small groups as they built social relationships with each other and collaborated in thinking and talking about literature. Although students spent much of their small group time talking about ideas outside of the realm of the text and the task, the opportunity to engage in this discourse setting had important intellectual and social consequences. As Mike acknowledged, “It opens people up. Like Eddie—I didn’t even know the kid talked until he was in my group. I guess it works.”

7.1.2 Writing provided students with the time and space to develop their ideas

Students in period 2, who engaged in unimodal activities during cycles 1 and 2, identified the essay that they wrote during cycle 1 as the most beneficial activity in which they engaged during the project. Elizabeth and Mike both articulated how writing promoted students’ argumentation:

Elizabeth: Writing in essay format pushes me to get out my thoughts and back them

up. So, I have, I'm forced to think of reasons of why I think the way I do, which is more than just, "this is what I think" or "this is what [it] represents."

Elizabeth identified the need to provide evidence for the claims she made as a writer. Even though Elizabeth was conscious of the role of various aspects of argumentation, such as warranting claims with evidence, these aspects were absent from the essay that she completed with Natalie and Mike during cycle 1. Although Mike also valued the essay cycle over all others, he admitted that the unimodal product left much to be desired:

James: Okay. So, now I'd like you to think back to all three of these projects—the essay, the found poem, and the digital video. Which project was most helpful for you in terms of understanding the text and being able to talk about it this semester?

Mike: I guess I'd have to say the paper even though I didn't like it. 'cause the video was kind of a little bit of a goof, you know. It was just more fun than it was actually a message. The poem, I didn't care for. And even though the paper is a little jumbled and unorthodox to say the least, it made a little more sense than most of the things. Like the poem was just like saying how Roy is great. Roy's this, Roy's that, Roy's the best ever, blah. And then the video is just a joke. So, the paper, even if it wasn't in order, it stated like facts. It stated like comparisons. So if you just want a fact sheet, the paper did a good job.

I was intrigued by Mike's response, especially since he seemed to be quite critical of his work in a way that other students were not. Mike's criticism of the lack of order in his essay triangulated

findings from cycles 1-3. I asked him to think in terms of the differences and similarities he perceived across all three projects. His response highlighted aspects of time and space that were distributed differently across all three projects:

Mike: Um. Well, the paper seems like it's trying to get the most done. You know, you're writing a paper about something. You got a lot of like time and words to discuss what you need to say. So it gives you like the easiest opportunity to like um show your message. But um the poem gives you like the least 'cause you have like twenty lines to try to sum up like an entire story. Most people didn't try that, so they did just one person, which kind of like narrows down your knowledge of the story. And then the video, if they haven't read the story, they have no idea what it is. If you brought thirty kids into that class, they'd have no idea what you're talking about.

Mike suggested that the essay from cycle 1 was the most purposeful and probably the most intelligible to an outside reader. His focus on an adequate amount of time and space that was afforded suggests that these are both necessary conditions for Mike to create a useful text that might help someone else to understand the text. Mike's experiences in school might also have shaped his thinking about what counts as intellectual work and what doesn't. For example, Mike might have valued the essay task because it most closely resembled what he understood to be academic work whereas the digital video was unrecognizable as a thinking device.

So while students in period 2 recognized the opportunities that were available to them as they co-constructed their essays during cycle 1—developing ideas through argumentative reasoning—neither this focal group's talk nor their unimodal or multimodal products supported

the idea that students actually took advantage of this opportunity. Although, after reading through my analysis of the unimodal focal group talk during a debriefing session, Mr. Smith noted:

The conversation between Natalie, Elizabeth, and Mike about lions is exactly as I remember it. Very interesting. I'm not sure if it's in your notes, but I'm pretty sure Mike was on the Wikipedia page for Lions while they debated how to make the metaphor work—so when I asked him if he was helping out, he'd say he was researching lions and what they did that would relate to Macbeth.

Thus, Mike's participation in the unimodal group work was, arguably, multimodal, and certainly intertextual. His connection between information from an online source about lions and the group's talk about Macbeth, the "cowardly lion," functioned as his most meaningful contribution to the group's work. He only contributed, after all, 12.6% of all of the turns taken during that conversation. Nevertheless, as Mike claimed above, the written essay more closely resembled a "fact sheet" rather than a reasoned argument.

7.1.3 Discussing texts in small groups afforded students the opportunity to consider multiple perspectives

Finally, students in period 2 articulated the value of discussion in terms of learning about multiple perspectives throughout their interviews with me. Although Mike admitted that sometimes any perspective was welcomed when he had failed to read the text, both Mike and Elizabeth understood the value of seeing texts through different lenses. Elizabeth reflected on the importance of bringing multiple perspective to the task during her collaboration with Natalie:

Elizabeth: Um, I think, in all of our discussions, me and Natalie have like a really

difference of opinion. And it happens in everything that we do in that class. But with working together a lot, I think, we kind of, me and Natalie realize that we see usually way really far on a different side of the spectrum on things. But we, I don't know, although everything that I think and everything that she thinks aren't in the paper, we find a way to incorporate what we both think is the most important parts and kind of expand on both of them instead of the paper being about one topic, we try to put both of them together.

Elizabeth's response indicated her value of multiple perspectives, but it also illustrated what she perceived to be the goal of collaboration: consensus building through the compilation of different perspectives. Unveiling this perspective helped to understand why the unimodal focal group worked the way it did to produce the essay that students individually wrote and then compiled during cycle 1. A more dialogic essay could have resulted from the group's integration of various points of view rather than compilation of multiple ideas. Merely placing ideas in close proximity to each other does not mean that the ideas are less monologic than if they had appeared in two separate documents. Dialogue required engaging and integrating different perspectives rather than consensus building or the unconditional valuing of all perspectives equally.

7.1.4 Multimodal activities afforded students the opportunity to expand their ideas and interpret texts differently

The most frequently-occurring theme during my interview with Louise and Leonard was the notion that multimodal activities offered opportunities for interpretation that were not possible through unimodal activities such as the letter correspondences that these students completed

during cycle 3. The following interview excerpts illustrate Louise's understanding and appreciation of the "generative power of transmediation" (Siegel, 1995, p. 455):

- I guess this picture was more of the idea of overreaching ambition and what [Macbeth] went through more than like an actual event in the book.
- I think the idea of it and having those four characters—like the three witches and him there—portrayed the idea better than actually a specific event in the book.
- Memo with a gun. 'cause that, again, more of an idea than a actual event. 'cause obviously a ball did not turn into a bird, into a gun. But I think this was the idea: Like the bird is like a symbol in the book and that had um, that was just all bad things, and...
- Because it's. It's a symbol for a reason and it's not like. The symbol was used in the book, but the symbol means something else. It doesn't mean a specific event in the book. It means a lot more than that.

Leonard conceptualized the value of transmediation in equally telling ways throughout my interview with him:

- It's like telling a story in a still picture.
- It's kinda like um you see it how it is and then you get another side of what that symbol is. Like for the bird and everything, they knew it was death and everything, but like we did it in a way so that they would see the bird, and they would see the gun and they would see Memo. And in a way, in the book it wouldn't have been directly that way. So we kinda like gave 'em a different way to do it. And if you just do it in the way of the text, everyone understands that.

Like if you read the book through, and you just put down what's in the book, everyone already knows that. . . .So it pretty much broadened what it was.

- And like, words can only give you what they are. That is what it is. A picture can give you so many other things. It's just how you look at it. This is just one way. So, you're like writing it down, but how we think, it's just like we broaden everything. And so when we put it down, we want to write every little thing that we can 'cause like we can't explain it or we don't know how to within what he have.

These excerpts from the interview transcript with Louise and Leonard highlighted how students engaged in the multimodal activity as an opportunity to expand the interpretive potential of *Macbeth* and *The Natural*. Louise identified how the focal group's products went beyond illustration or decoration to portray "ideas" rather than "events" from the texts. Leonard's use of the word "broaden" underscored the role of transmediation as this process facilitated his understanding of the texts and provided access to the text that was potentially restricted by a unimodal activity. Leonard's compelling claim, "It's like telling a story in a still picture," revealed a deep insight into the ways in which an interpretation created a new text, a new narrative in itself. These texts were used by students as thinking devices that promoted the discussion of additional perspectives on the text.

7.1.5 Different mediums engaged different types of learners differently

Students in both periods expressed the value of alignment between their particular "learning styles" and the multimodal or unimodal projects in which they engaged. Elizabeth identified herself as an "analytical person," for example, and used this fact to support her claim that she

learned better through the unimodal activities. In describing how engaging in the digital video project helped her to understand *The Princess Bride*, however, Elizabeth told me that the multimodal activity improved her reading comprehension because “it gave me something to attach to the thoughts in my head so I can visualize something and see it rather than it just being words.” Elizabeth then went on to identify herself as being “more of a visual person.”

Elizabeth wasn’t the only student who identified as a particular type of learner for whom the multimodal or unimodal nature of the activity appealed to a greater or lesser extent. Louise also identified as a “visual person” who made meaning more efficaciously through multimodal means:

I’m a very visual person. The only really good way to express myself is with pictures. Like when I was little, I kept a diary, but the diary wasn’t of words, it was just pictures of things that would happen. Like I still have them when I was really little. There were dates and everything on them when like you know other little girls were pretending to be princesses and you know like write that down. I would draw it. And that’s how I would remember things. So I just don’t connect as well as I do with pictures as I do to words.

Louise then identified Leonard as a very “analytical thinker” with whom she was fortunate to be grouped since their respective skills could be used to facilitate multimodal tasks, which required both “analytical” as well as “visual” intelligences.

7.1.6 The process of working with different mediums facilitated interpretations of the text

Louise and Leonard had much to say when it came to responding to my questions about the affordances of various mediums. Louise challenged a misconception of the value of multimodality in secondary classrooms by claiming that some teachers might always value the

linguistic mode over all other modes and Leonard supported Louise's claim by identifying the myriad ways in which multimodal instructional products can be used as thinking devices in the classroom:

Louise: But I think that some people only focus on writing, more so than pictures. I think a lot of teachers, when you do, you have to write an essay. Some people can write an essay very well. And it sounds great. But you also tell that same teacher that someone can do a picture very well, it seems to them that that person might be slacking. Like if you gave, if you gave kids the option of you could draw a picture or you could write an essay, a lot of kids would decide to draw a picture 'cause it's easy. But if someone put the same amount of work into a picture that they would into an essay, I don't see the difference 'cause that's a difference of learning. Like a picture could be much more powerful than an essay. As well as an essay could be much more powerful than a simple drawn picture.

Leonard: I think a drawn picture is a lot better than an essay, 'cause in an essay you're following format and you're trying to focus on how to put it together. Like in your body paragraphs, you're trying to figure out, "Okay, this is my one statement, and now I have to back it up." But in a picture, you can have it and then if you were to just present that picture instead of just doing an essay, you could look at your picture and go and keep going, and keep going. Like in your essay, you have what you have written. In a picture, you have so much more. It's like never-ending things you can say to it by how you put it together.

Both focal students in period 3 were able to appreciate the value of working across modes to make meaning. Although both students were aware of the misconceptions that pervaded students' uses of various creative mediums, Louise and Leonard acknowledged that any medium could be utilized haphazardly. In the end, it depended on the effort put forth by the student.

7.1.6.1 Summary of interview data

The themes that emerged from these interview data triangulated many of the findings provided in chapters 4, 5, and 6. For example, students who completed multiple multimodal products argued that creating these products extended the interpretive potential of the texts that they had read. Although their small group talk and the products that they created already evidenced this finding, the fact that students were aware of the generative and transformative power of transmediation inherent in the multimodal tasks that they composed suggests that these activities also promoted students' metacognitive awareness of their own learning processes—another positive learning outcome associated with students' interpretive work across sign systems.

8.0 CHAPTER VIII: CONCLUSION

In this final chapter, I address each research question for this study by drawing on the findings discussed in chapters 4-6. Next, I identify some features of the context of this research project that shaped my dataset in consequential ways. Then, I revisit the problem areas for research and practice in the discipline of English education that were identified in chapters 1-2, and how this study informs that body of literature. Finally, I summarize this project and warrant the relevance for future research studies that build on the findings presented here.

8.1 RESEARCH QUESTION 1

8.1.1 Was the nature and quality of discussions distinct (and if so, how?) between a class in which students previously engaged in a collaborative multimodal activity and one in which they previously engaged in a collaborative unimodal activity?

I have been able to address this question throughout this study by comparing two class sections as they engaged in discussions about the same piece of literature and considered the same interpretive questions about that piece of literature. Students in the multimodal instructional condition during cycles 1 and 2, who then switched to the unimodal condition during cycle 3, made more dialogic moves during whole class discussions in every category for every discussion

except for the one category code that ultimately proved to be monologically enacted during cycle 1: intertextuality. In other words, students in period 3—regardless of the instructional condition—consistently made more interpretations of the text (see Table 43) and more dialogic moves during whole class discussions than students in period 2 (see Table 38). Since this trend also existed during the baseline discussions, but was not robust enough to warrant any concerns about differences in the composition of each class section, I argue that some students in period 3 internalized the dialogic discourse norms that they practiced and developed during their collaborative multimodal project work in which they engaged during cycles 1 and 2.

Figure 7 presents a graphic representation of the levels of dialogism for both students and Mr. Smith in each instructional condition for every whole class discussion analyzed in this project. Noteworthy in Figure 7 is the consistent difference between the number of dialogic moves made by students in Period 2 and Period 3 after the baseline discussions took place. Figure 7 also illustrates the important relationship between teacher and student dialogic discourse: Decreases in students' dialogic moves corresponded with decreases in Mr. Smith's dialogism. For instance, the number of dialogic moves decreased from cycle 1 to cycle 2 for students in both conditions and for Mr. Smith in the unimodal instructional condition. Coupled with the findings on the length of teacher and student talking turns during cycle 2, decreased dialogism among students in both instructional conditions occurred when Mr. Smith used approximately twice as many words per turn as students (see Figure 8).

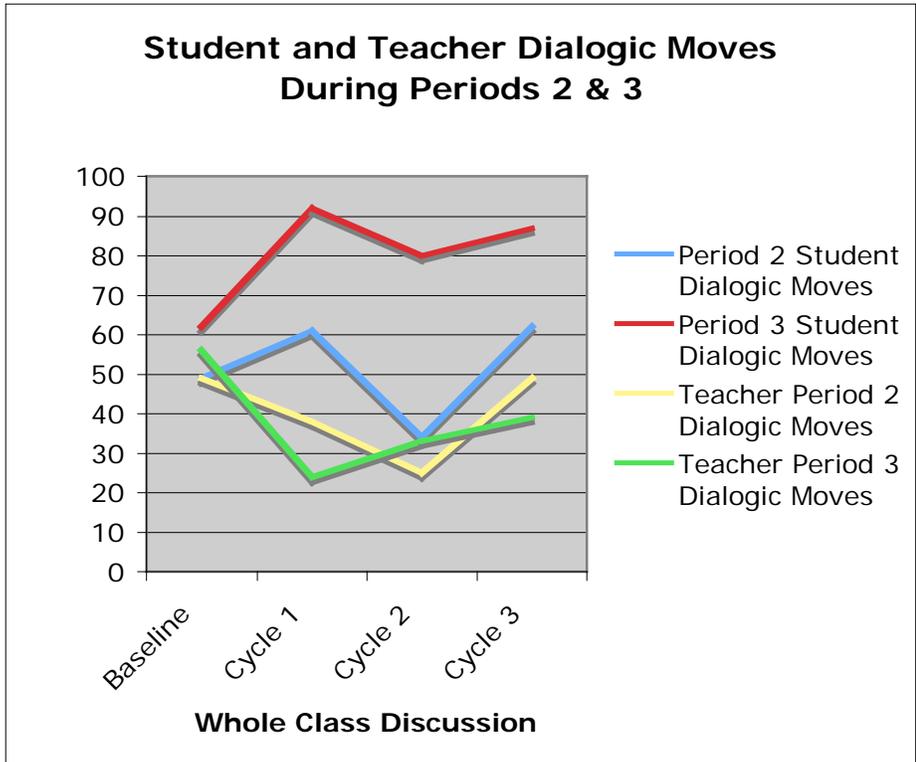


Figure 7. Student and Teacher Dialogic Moves by Class Period Across All Whole Class Discussions

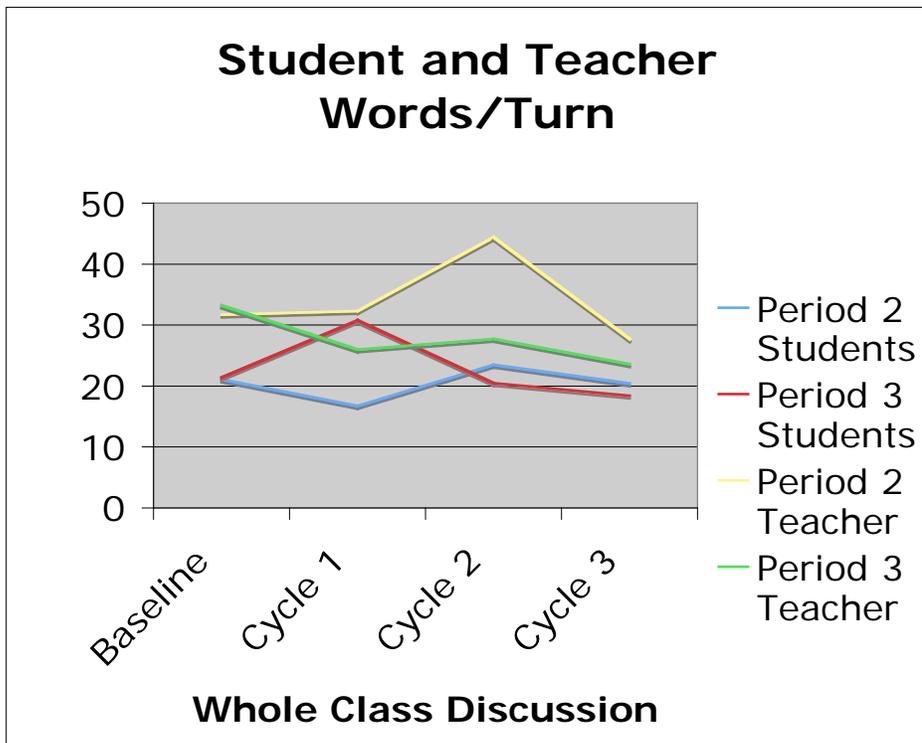


Figure 8. Student and Teacher Words Per Turn by Class Period Across All Whole Class Discussions

After the baseline discussions, students in period 3 also consistently engaged in more dialogic spells during whole class discussions than did students in period 2 (Table 43). As the study progressed, the difference in the number of dialogic spells in each class section became greater (see Figure 9). As illustrated in chapter 4, dialogic spells provided robust learning opportunities for a large number of students, including students who may not necessarily be engaged with the academic exercises typically associated with schooling. During dialogic spells, students posed authentic questions about the text, respectfully challenged each other's ideas, supported their ideas with evidence from texts, and practiced using the discourse norms established by the teacher. Sometimes as many as ten different students would participate in a dialogic spell, and often these students were not those who tended to talk during discussion anyway. Although I do not argue that students' participation in multimodal instructional activities *caused* dialogic spells to occur more frequently in period 3, trends in these data illustrated how multimodal instructional activities promoted the generation of literary interpretations and substantive engagement in inquiry-based discussions for some students in this study. Furthermore, those students who stand to benefit most from dialogic spells also have the most to offer in terms of improving the nature of the discussion that takes place by providing additional perspectives on the text, perspectives that often go unacknowledged only because they are not vocalized (Schultz, 2009).

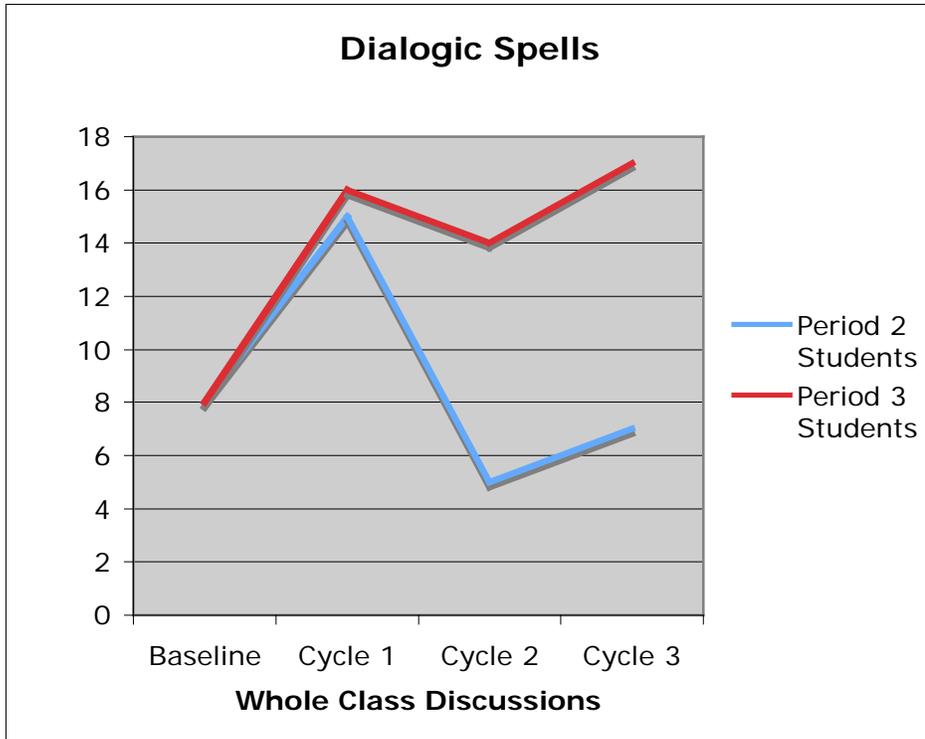


Figure 9. Dialogic Spells by Class Period Across All Whole Class Discussions

Thus, the nature and quality of whole class discussions among students in period 3, who engaged in two cycles of multimodal project work followed by one cycle of unimodal project work, was distinct. Whole class discussions in period 3 were more student-centered in nature and more dialogic in quality.

8.2 RESEARCH QUESTION 2

8.2.1 What was the nature of the semiotic mediation and transmediation that took place as groups of students undertook multimodal and unimodal activities?

Students in the multimodal condition across all cycles mediated their understanding of the text primarily through intersubjectivity, in which students spoke and used other semiotic tools in order to define the procedures that they used with each other to complete the task. Students in the unimodal condition across all cycles tended to engage in metatalk about the text to mediate their thinking. These frequencies made intuitive sense since the multimodal activity might have presented a novel instructional format for students, and, thus, would require students to talk to each other in ways that allowed students to take control over the task, and since metatalk about the text allowed students in the unimodal condition to combine ideas across linguistic modes. Discourse analyses qualified these descriptive frequencies to reveal the nature of students' mediation while unimodal and multimodal product analyses revealed the nature of students' transmediation.

Analyses of the frequencies of codes for semiotic mediation suggested that the most dialogic participants in small group discussions (i.e., students whose talk represented the internalization of discourse norms, the co-construction of meaning, and the utilization of multiple semiotic tools in collaboration with others) engaged in a patterning of codes for semiotic mediation in which metatalk was given priority, followed by intersubjectivity and then goal formation. This distribution and integration of codes for semiotic mediation characterized both individuals' talk as well as the entire small group's talk in the most productive small group discussions.

Interestingly, small group talk that followed the description above often corresponded with generative examples of transmediation. In other words, students who integrated their own talk about the task by considering all three aspects of semiotic mediation *and* participated in a small group in which other students were also mediating their thinking through metatalk, intersubjectivity, and goal formation, produced multimodal products that were generative in nature. That is, the products represented meaning that was not available in the linguistic sign system alone, and could function as thinking devices, or texts, in their own right.

Classroom discourse analyses of students' small group talk revealed qualitative differences between the nature of mediation among focal students as they engaged in unimodal and multimodal collaborative work. Focal students working on unimodal instructional activities talked about the task in terms of how their work conformed to the conventions of the mode and genre in which they were collaborating. This focus revealed itself through the talk that surrounded unimodal project work as well as the projects themselves, which often reproduced meaning already available in the text using conventional structures of various written genres. The combination of focusing on form instead of meaning, and conforming ideas to the perceived preferred structures of the genres of writing in which students worked resulted in the compilation of readily available ideas rather than the generation of new ones.

The nature of mediation was connected in important ways with the nature of transmediation that occurred within collaborative multimodal groups in this study. Small group talk that was characterized by (a) the internalization of dialogic discourse norms, (b) the collaborative co-construction of meaning, and (c) the integrated distribution of codes for semiotic mediation, resulted in the generative production of meaning across sign systems. Students who recast their understandings across sign systems in this study created new

interpretations of literary texts. These new creations served as new texts that informed the ways in which students interpreted the original linguistic text. As such, students' ideas drove their talk and the product that students created, which distinguished itself from other approaches toward the task in which students attempted to fit their ideas into what they perceived as a pre-established and preferred form in the modality.

8.3 RESEARCH QUESTION 3

8.3.1 How did semiotic mediation and transmediation shape discussion and literary interpretation?

Of all of the research questions that guided this study, this question was perhaps the most central as the answers to this question provided the most powerful implications for theory, research, and practice discussed below. As I've argued above, the nature of semiotic mediation was intimately tied to the nature of transmediation for students who participated in this research project. Because of this connection, I will treat both of these processes together as I review my responses to this critical research question.

8.3.1.1 Scaffolded participation across discourse contexts

Students who successfully co-constructed multimodal products by transmediating meanings across sign systems, engaged in talk that was focused on meaning and literary interpretation rather than logistical aspects of the task or structural features of the task's genre. Thus, the multimodal nature of the task was enough for some students to engage dialogically with other

small group members about the literary text under study. The ideas that emerged from these collaborations scaffolded students' participation in whole class discussions of the text. That is, students leaned on the ideas that emerged from their small group discussions to respond to questions during the whole class discussion. After gaining the floor, as it were, students mediated their thinking through speaking, often ending up at a claim that was not evident at the onset of their talking turn. Furthermore, the multimodal product itself mediated some students' participation in whole class discussions. I have included multiple compelling examples of students' *re-transmediation* of ideas across modalities during whole class discussions in which a multimodal product created in the visual mode, for example, facilitated students' talk about the text in the linguistic mode of the whole class discussion.

These findings illustrated the value of theoretical concepts that shape students' learning, but might not be evident in practice as teachers and students discuss literary texts in various sociocultural contexts. Vygotsky's famous claim that higher mental functions originate on an interpsychological plane—among people in a social environment—before they are internalized on an intrapsychological plane, was represented by some students' use of literary concepts such as theme, symbol, motif, and characterization in this study. First, students generated their ideas about literary texts through their small group talk with others in which ideas were often created at the intersection of clusters of talking turns that were coded for three different aspects of semiotic mediation: metatalk, intersubjectivity, and goal formation. Thus, the origins of students' ideas that they then transmediated through multimodal instructional activities could be found in the social interactions that comprised students' small group work. Students who drew on those ideas during the whole class discussion internalized the ideas on an intrapsychological plane for themselves in order to translate the small group's idea as a response to the teacher's interpretive

question in the whole class discussion context. In so doing, of course, the students transformed the original idea yet again as they mediated their thinking through speaking during the whole class discussion.

8.3.1.2 Internalized discourse norms

Over the course of the semester, focal students in period 3 demonstrated how they internalized the dialogic discourse norms established by Mr. Smith during the observation cycle of this study. These students increasingly made the kinds of moves that Mr. Smith was making as he modeled the types of questions or comments that characterized dialogic interactions around texts at the beginning of the semester. Posing questions or comments to one another in their small groups, such as “But I don’t know why the bird would come in on that one,” and “How is that tied together, though?” illustrated how students appropriated the discourse norms that characterized dialogic discussions of literature. Examples of this internalization of discourse norms could be found during whole class discussions as evidenced by the following talking turn that occurred during a dialogic spell about *The Natural* during period 3: “What choices did [Roy] make, though, that were effected by Memo that he wouldn’t have made if she wasn’t there?”

As students in period 3 drew on their experiences in their small groups, they also used less semiotic mediation in order to participate during whole class discussions of literature. Students who averaged almost 31 words per talking turn during the whole class discussion in cycle 1 only provided 18.4 words per turn during cycle 3. There are a number of ways to make sense of this decrease in the amount of language used per turn by students in period 3 during cycle 3, including the notion that students had less to talk about because they made fewer meanings from the text after engaging in a collaborative unimodal activity. Nevertheless, mediation changes across contexts and over time, and that change is consequential to students’

development. Thus, this will be an important area of focus for future analyses of the ways in which semiotic mediation and transmediation shape classroom discussion and literary interpretation over time.

8.3.1.3 Contextual Forces

Research conducted in classrooms is dependent upon the instructional dynamic, or the “active processes of interpretation that constitute teaching and learning” (Ball & Forzani, 2007, p. 530) among students, content, and teachers within a particular environmental context. Indeed, this dynamic is often the primary focus of inquiry for many researchers in education. The present study, however, sought to understand how purposeful changes within the instructional dynamic changed the “active processes of interpretation that constitute teaching and learning” in one secondary English classroom. Thus, it is critical to point out exceptional contextual forces that informed the instructional dynamic throughout the study. I have identified four such forces that shaped the opportunities that existed for students in both conditions to participate in dialogic discussion during cycle 3: (a) intertextual excursions that led students’ talk away from the text, (b) student-to-student interpersonal dynamics that influenced interactions among students in both conditions, (c) the role of the task structure, and (d) the interpretability of the text as these factors influenced the kinds of unimodal and multimodal products that students created.

Intertextual excursions

The cycle 3 discussion included one question that asked students to consider the film version of *The Princess Bride* in order to illuminate what Mr. Smith and I thought were purposeful choices that the author, William Goldman, made in the novel. Since Goldman was also involved in the production of the film adaptation of his novel, we thought that the question raised an interesting

point about the different expectations that we have as readers of literature and as readers of film. Mr. Smith and I both thought that the question would be relevant to the overarching questions for the unit (What role does the epic hero play in modern society? How do perspective and current cultural norms affect our interpretations of common folklore?) as well as the larger curricular goals as they were articulated throughout his syllabus and the 12th-grade curriculum.

Despite these intentions, students took this question as an invitation to bring in whatever outside sources that happened to occur to them during the discussion. More often than not, the films, books, and television series referenced were related to the topic of discussion tangentially. That is, an aspect of the discussion connected to an aspect of a sitcom, for example, which compelled some students to make that connection public knowledge. Some students, as I've identified above, were more likely to engage in these types of intertextual connections than others. These interjections resulted in disruptions in the development of dialogic discourse, which steered the discussion toward monologism, insider discussions about "Scarface," for example, and unconstructive challenges from students who didn't understand why the connection was being made.

As a result of the intertextual diversions, the whole class discussion during cycle 3 was less dialogic in terms of students' interaction with Goldman's novel, and more monologic in terms of students' talk about texts for which particular students were privy to information while others sat idly through the discussion. I include this reflection because it complicated the interpretation of classroom discourse data during cycle 3. As such, my conclusions about what occurred during cycle 3 (e.g., the "plateau effect" of dialogism and my interpretation of students' use of fewer words per turn as a sign of decreased mediation needed) must remain tentative until the pattern described above bears out through future research endeavors. It could certainly be the

case that the diversions created through extended references to outside texts created a different discourse context for participants, which was consequential to the kinds of contributions that were made (or not made) during these whole class discussions.

Student-to-student dynamic in small groups

Although this was not necessarily unexpected, the student-to-student dynamic ranged across small groups in both classroom conditions from collaborative to confrontational. In the most monologic of cases, students engaged in the minimal amount of interaction possible in order to complete the task before communication shut down completely and students completed their respective parts of the project on their laptops. From a sociocultural perspective, it stands to reason that students who were neither speaking to each other nor interacting in any other social way experienced a qualitatively different learning opportunity than the opportunity that was created by students such as Leonard, Louise, and Nick, who not only interacted with each other dialogically about literary texts but also combined their respective skills to create impressive multimodal products that extended the potential interpretations that existed for the literature they studied.

Task structure and literal transmediation

Mr. Smith and I noticed what seemed to be an interaction between the novelty of the task structure and students' subsequent generative transmediation. In other words, students who engaged in the multimodal instructional activity for the first time during cycles 1 and 3 produced relatively few illustrations of literal transmediations (see, for example, Figure 4). Cycle 2 multimodal products included more examples of literal transmediation. One group, for example, produced a clay sculpture of Roy Hobbs's bat, which the protagonist named "Wonderboy," while

another group sculpted a baseball whose cover was falling off. Although such sculptures were aesthetically pleasing, they illustrated or decorated the text rather than extended the potential meaning of *The Natural*. At the same time, students engaged enthusiastically in the letter correspondences activity for the unimodal condition during cycle 3. Thus, alternating among multimodal instructional options might help to facilitate students' interpretive thinking, semiotic mediation, and transmediation of literary texts as they encounter each task with a fresh perspective.

The construction of these instructional tasks in each mode, however, influenced the ways in which students oriented themselves toward the task. During cycle 1, for example, every small group in the unimodal condition wrote four- or five-paragraph essays to address the prompts for their work on *Macbeth*. Although this was not part of the instructions for the task, students' expectations for schooling and "doing English" shaped the form that their responses took. In the case of cycle 1, the novelty of the multimodal task appears to have influenced the small groups' products in consequential ways: Students understood the task as an invitation to inquire into possible meanings in Shakespeare's play and not merely to perform an academic exercise. The small group task in cycle 2 promoted students' interpretive and creative thinking in the unimodal condition more obviously than in cycle 1 through their collaborative construction of a found poem. The task for students in the multimodal condition during cycle 2 leveraged students' multimodal literacy practices and the creative and interpretive thinking that these practices seem to have fostered in the service of students' learning about the academic literary concepts of theme, motif, and symbol. Thus, the structure of the task for students in both conditions during cycle 2 held the greatest potential for students to generate new meanings about the novel through their small group collaborative work. The language of the task in cycle 3 seems to have

influenced students' literal orientation toward the task. Students in both cycle 3 conditions struggled to move beyond illustration, decoration, and re-enactment in their multimodal products or plot summaries in their unimodal products. Thus, the nature of the task both constrained (multimodal group in cycle 3 and unimodal groups in cycle 1 and 3) and extended (multimodal groups in cycles 1 and 2) the interpretive potential of each small group's collaborative work in both conditions.

Text interpretability

Not all pieces of literature lend themselves equally to interpretive discussions. In this study, *The Princess Bride* represented a text that students did not frame as in need of interpretation. That is, the novel, explicated through the students' screening of the film, answered whatever interpretive questions students might have had about the text. When it came time to generate new meanings about this text, students struggled to say anything about the novel that hadn't already been said or portrayed on screen. Texts such as *Beowulf* and *Macbeth* required students to work more explicitly through the language to even get to the surface level meanings in the text, which were often fleshed out and interpreted through small group and whole class discussions. Additionally, Roy's true motivations in *The Natural* were never explicitly stated, and the author never went so far as to condemn the protagonist for his moral decrepitude or praise Roy for his baseball prowess. The same cannot be said for the characters in the film version of *The Princess Bride*. Although the author suggested a much more complicated state of affairs at the end of his novel, most students drew on their understanding of the film to discuss *The Princess Bride* and construct their unimodal or multimodal products. Quite an interesting discussion actually emerged during the multimodal whole class discussion during cycle 3 in which the students discussed why it was necessary for films to have a final ending, but novels were allowed to leave

loose ends untied. Perhaps the reason has something to do with why people enjoy engaging in discussions about literary texts in the first place.

8.4 IMPLICATIONS

Some of the considerations mentioned above lead rather naturally into implications for future research and practice in English education. I provide some of the more compelling implications of this research project in this section before I provide a final summary wrap-up of the project.

8.4.1 Future research implications

This study provided a useful point of departure for future inquiries into the role of multimodality in promoting dialogism and leveraging adolescents' academic literacy learning. Based on the findings from this study I provide three areas that must be addressed through future empirical work in the field.

8.4.1.1 Interaction of student dynamic-talk-mode

Future projects must address the interaction among students' small group dynamic, students' talk within those small groups, and the modality of the instructional activity in which students were engaged. Such an investigation would seek to make sense of the case of focal student, Mike, who rarely participated when his *unimodal* small group was composed of Elizabeth and Natalie, but provided most of the talking turns when his *multimodal* group consisted of Eddie and Elizabeth to whom he delegated most of the work during cycle 3. The exceptional range of behaviors that

Mike exhibited suggested that there might be a complex interaction for some students among the group dynamic, student engagement, and instructional modality.

8.4.1.2 Cross-sectional analyses

The findings in this study come from one instructor and his two class sections of one 12th-grade English course. Additional data collected from diverse classroom contexts would shed light on the role of different teaching practices in promoting dialogic discussions by leveraging students' multimodal literacies. Furthermore, as multimodal literacy practices expand to reflect the technological advancements of the 21st century, researchers in education must be able to articulate the particular affordances offered by a given multimodal text. Finally, some multimodal tasks might be paired more productively with particular literary texts to promote the kinds of learning opportunities that have been described in this study. Do particular types of literary texts, for example, lend themselves more or less effectively to particular instructional modalities? This is an empirical question, the pursuit of which will likely yield important implications for research and practice in English education.

8.4.1.3 Limitations of oral discourse analyses

Since small groups discussions in both conditions were digitally video recorded, I was able to capture aspects of group members' interaction that provided important additional information from which I could draw to interpret the meaning making that took place as students collaborated to complete their respective projects. As evidenced in the portraits of small group talk among members of the multimodal focal group, these students relied heavily on non-linguistic modes of communication to mediate their thinking about literature and how their understandings of a literary text might be represented visually. Without access to such non-linguistic semiotic tools,

students' classroom discourse might have been much less clearly understood as a lever for their generative transmediation. Classroom discourse analyses that seek to reveal students' individual and collaborative thinking, then, must account for the vast repertoire of semiotic tools upon which students draw to interpret literary texts

8.4.2 Implications for practice

The design of this study allowed me to work in close collaboration with Mr. Smith. As a result of this collaboration, he and I have remained in contact in regard to his work as a secondary English teacher. Because of the positive findings that emerged from this project, he implemented his own teacher research project in which he attempted to “work in” everyday multimodal literacy tasks into the curriculum. Because he and I have continued our conversation about multimodality and dialogic discussion beyond the scope of this project, I have come to learn that Mr. Smith is now sensitive to concepts such as “dialogic spells” as they emerge during his classroom discussions of literature. He recognizes when these spells occur and acts on this recognition by not intervening until the dialogic spell is over. This sensitivity to such an important feature of classroom discourse illustrates an important implication for practice.

The ability to recognize literal from generative transmediation is another skill that Mr. Smith has developed as a result of his participation in this project. He has incorporated language into his formative assessments of students' multimodal products in which literal transmediation, or the decoration or illustration of readily available ideas in the texts does not demonstrate the kind of interpretive work he asks of his students. These anecdotes suggest to me that this research has already demonstrated important practical implications for the classroom.

Based on the findings from the small group discourse analyses, it may behoove English teachers to structure directions for multimodal instructional activities in such a way so as to promote all three aspects of semiotic mediation. Explicitly articulating the importance of talking about the text, figuring out how everyone will participate in the task, and how everyone will contribute to the group's accomplishing the goals of the task could result in more productive small group interactions and genuine collaborative learning.

Despite many turns at talk that were not coded for aspects of semiotic mediation, providing students with the space and time to develop the dialogic discourse norms that some students demonstrated in this study cannot be overemphasized. Having been able to "listen in" on many adolescents' small group conversations has convinced me that students are quite capable of thinking deeply and speaking dialogically about literary texts, and that the right kinds of instructional activities can scaffold students into whole class discussions that promote students' learning about literature.

8.5 SUMMARY

Collaborative multimodal instructional activities facilitated some students' discussion and interpretation of literary texts in this study by promoting students' semiotic mediation through dialogic discourse and transmediation, or the recasting of meaning across sign systems. The products of these collaborative multimodal activities and the small group talk that accompanied the creation of these products scaffolded some students' participation in another discourse context: the whole class discussion. Students' small group talk in the multimodal focal group evidenced students' internalization of the dialogic discourse norms advocated by the teacher at

the beginning of the year. These findings were contrasted with the small group talk, project work, and whole class discussions among students who collaborated to complete a unimodal instructional activity.

Since researchers have found consistently that dialogic discussions occur for less than one minute per secondary English class period (Nystrand et al. 2003), the findings from this study identify a way in which to disrupt monologic discourse patterns from predominating. The benefits of engaging in such discussions far outweigh whatever costs are perceived by students, teachers, administrators, or other stakeholders in education who may hesitate to relinquish the responsibility for and control of talk to students. Engaging students in the study of literature by leveraging their multiple and multimodal literacies can promote dialogic interactions around texts that can scaffold students into the authentic disciplinary practices of English.

APPENDIX A

DIALOGIC ENGAGEMENT CODING SCHEME FOR WHOLE CLASS DISCUSSIONS

Code Label: <i>Teacher (T)</i> and/or <i>Student (S)</i> Moves	Definition	Positive Example	Negative Example	Decision Rules
Accountable Talk/Revoicing (Michaels, O'Connor, & Resnick, 2008; O'Connor & Michaels, 1993) (T)	Teacher and students collaboratively create understandings and interpretations of a text that serve to develop students' reasoning and facilitate the communication of students' thinking. In collaborating with students in this way, teachers often "revoice," or repeat all or part of a student's utterance and ask the student to verify the interpretation.	T: "Say more about that."; "Do you agree/disagree?"; "Who can repeat what S just said?"; "Why do you think that?"; "Do you have an example/counterexample?"; "So you are saying..." S: "The embryo is, sort of, like eggs, but not like a chicken egg, I mean..." T: "So you're saying that an embryo is a kind of egg? Is that what you mean?"	S: "The embryo is, sort of, like eggs, but not like a chicken egg, I mean..." T: "So an embryo is like eggs, but not a chicken egg."	If teacher simply repeats a student utterance without verifying its correctness or without using the utterance in a way that furthers discussion along, then do not code as "Accountable Talk/Revoicing." If teacher uses a verb of saying ("you are saying," "you are claiming," etc.) then code as "Accountable Talk/Revoicing."

<p>Authentic Questions (Christoph & Nystrand, 2001; Nystrand, 1997) (T)</p>	<p>Questions posed that do not prompt pre-specified answers. Authenticity depends on context (cannot be determined by words alone).</p>	<p>“What were the causes of the Civil War?” <i>in a graduate seminar in which the causes of the Civil War are a matter of dispute.</i></p>	<p>“What were the causes of the Civil War?” <i>in a high school social studies course in which there may be predetermined answers to this question.</i></p>	<p>If the teacher’s question can be answered accurately with an indeterminate number of possible correct responses, then code as “Authentic.”</p>
<p>Coaching/Scaffolding (Kong & Pearson, 2003; Morocco & Hindin, 2002) (T)</p>	<p>Teacher talk that explicitly facilitates student talk by encouraging participation in literary discussions through direct instruction and mini-lessons. To facilitate literary interpretation, teachers may “teach peer discussion roles, cue students to role requirements, [and] provide language for discussion norms and principles.” To scaffold how students negotiate interpretations, teachers may “maintain a focus on the text, refer students to the text, construct a concept map for discussing text, [and] demonstrate intra-textual analysis.”</p>	<p>T: “One way that you could respond to an interpretation that you do not agree with is to…”</p>	<p>T: “Connect everything that you say to the previous speaker’s idea.”</p>	<p>If the teacher’s utterance suggests that students appropriate a move regardless of the circumstances, then do not code as “Coaching/Scaffolding.” If teacher provides explicit guidance and/or supports for participating effectively in classroom discussions, then code as “Coaching/Scaffolding.” If teacher commands or orders a student to always speak, think, or act in a particular way, then do not code as “Coaching/Scaffolding.”</p>

<p>Challenge (Keefer, Zeitz, & Resnick, 2000) (S)</p>	<p>Student pushes back constructively against either another student's use of evidence or another student's line of reasoning (see "Evidence Source" and "Reasoning" codes)</p>	<p>S1: "No, the people that gave, I would pay them for the food and shelter, I just wouldn't give away money freely. Nobody would give away money that freely." S2: "But, they helped you, they helped you walk, uh...like every animal like helped you and, um...helped you...like carry."</p>	<p>S1: "No, the people that gave, I would pay them for the food and shelter, I just wouldn't give away money freely. Nobody would give away money that freely." S2: "You don't know what you're talking about."</p>	<p>If student's response to another student or the text encourages a consideration of an alternative explanation, then code as "Challenge." If student's response to another student or the text functions as an attack designed only to antagonize, then do not code as "Challenge."</p>
<p>Classroom Culture/Group Process Metatalk (Almasi, O'Flahavan, & Arya, 2001; Kong & Pearson, 2003; McIntyre, Kyle, & Moore, 2006) (S)</p>	<p>Student talk that builds the collaborative culture of the classroom environment by encouraging participation through positive interactions with peers.</p>	<p>S: "I liked Sarah's question about the garden being a metaphor for life in this text because it made all of us reconsider the story from a more symbolic perspective."</p>	<p>S: "To piggyback off of Sarah's response (<i>but in reality introduces a completely new idea</i>), the main character espouses beliefs that are quite closely aligned with this institution's teaching. So I wonder whether his belief system can be clearly distinguished from the society in which he lives or the perspectives of those who have the power in that society."</p>	<p>If students talk about how other students are contributing to the quality of the discussion and/or a student's interpretation of the text, then code as "Classroom Culture/Group Process Metatalk." If students incorporate collaborative types of talk mechanically, then do not code as "Classroom Culture/Group Process Metatalk."</p>

<p>Explore Possibilities/Perspective Taking (Langer, 1993) (S)</p>	<p>Students consider potential meanings in the text tentatively in order to gain information to form an understanding of the characters and events in the text.</p>	<p>S: “I don’t understand when he goes around the party and he’s asking who Gatsby is, why everybody stares at him”</p>	<p>S: “Fitzgerald certainly didn’t intend for us to question Gatsby’s motives in this part of the text.”</p>	<p>If student’s response reflects a fixed interpretation of the text, then do not code as “Explore Possibilities/Perspective Taking” (EPPT). If students ask themselves questions out loud during discussion, or if students pose questions to the group for consideration that would facilitate textual interpretation, then code as EPPT. If students express some uncertainty or doubt about their knowledge or opinion, then code as EPPT.</p>
<p>Extending/Elaborating (Langer, 1993) (S)</p>	<p>Students build on prior knowledge and elaborate on that knowledge in order to extend their current understanding.</p>	<p>S: “They knew who he was, knew of him. But when they came face to face with him [they] did not know.”</p>	<p>T: “What does the sentence itself mean? His origin? His past experience?” S1: “His origin?” T: “What is something that is cast obscure?” S2: “Not clear.” T: “Not clear, you see? What is the sentence saying?” S2: “They’re not clear where he came from.”</p>	<p>If students use prior knowledge from the text or from their own experiences to extend or elaborate an interpretation of the text, then code as “Extend/Elaborate” If students draw on prior knowledge or experiences, but do not use that knowledge to extend their current understanding of the text, then do not code as “Extend/Elaborate.”</p>

<p>Evidence Source: Text, Knowledge, Interpretation (Hadjioannou, 2007; Keefer et al., 2000) (S)</p>	<p>Students back up or warrant their claims with evidence.</p>	<p>S: “Yeah, but, if the people who didn’t help them, um, like the wedding thing...and like the rhinos or the wild hogs, whatever they are, um...I would make them work for it because they didn’t really help.” (Evidence Source-Text)</p>	<p>S: “I would make them work for it.”</p>	<p>If students warrant their claims during discussion with evidence based on (a) facts from the text, (b) nontextual knowledge, or (c) interpretations of textual information, then code as “Evidence Source-Text, Evidence Source-Knowledge, or Evidence Source-Interpretation, respectively.”</p>
<p>Inauthentic Questions (Applebee, Langer, Nystrand, & Gamoran, 2003; Nystrand & Gamoran, 1991) (T)</p>	<p>“Test” or “display” questions that have only one possible response that would satisfy the teacher’s question. These questions are often literal questions for which answers can be readily retrieved from the text.</p>	<p>T: “According to the poet, what is the subject of the <i>Iliad</i>?” S: “Achilles’ anger.” T: [<i>Looking for another answer</i>] Where does the action of the first part of Book I take place when we enter the story?”</p>	<p>T: “How does Bob Ewell get killed?” S: “Boo Radley did it.” T: “How did you figure out that Boo killed him?” S: “...But I guess that I thought that the knife...I really didn’t understand this [part].”</p>	<p>If the teacher rejects a student response, and accepts another student’s response before moving on to another question, then code the first question as “Inauthentic.” An inauthentic question allows for only one possible right answer.</p>
<p>Interpretive/Exploratory Discourse Norms (Hadjioannou, 2007; Morocco & Hindin, 2002; Whitin, 2005) (T)</p>	<p>Teacher postpones judgment, uses tentative language, entertains multiple points of view, hypothesizes issues and dilemmas, values the contribution of students, revisits and revises ideas, tolerates ambiguity, and seeks connections to build textual interpretations.</p>	<p>T: “I’d like you to identify one or more emotions in the story and then associate this idea with colors, symbols, lines, or shapes on your chart paper.” S: <i>complete the activity and share out.</i> T: What else might represent this emotion or idea in the story?</p>	<p>T: “There are three major themes in this text. Identify all three themes and indicate the page numbers on which these themes can be found.”</p>	<p>If the teacher uses any non-linguistic semiotic system (e.g., music, painting, sculpting, etc.) to facilitate students’ interpretation of a text, then code as “Interpretive/Exploratory Discourse Norms.”</p>

<p>Intertextuality (Bloome, Carter, Christian, Otto, & Shuart-Faris, 2005; Shuart-Faris & Bloome, 2004) (T & S)</p>	<p>Teacher juxtaposes texts (including written texts, conversational texts, electronic texts, and nonverbal texts) by referring to common features across texts, common referents among texts, or historical relationships between texts.</p>	<p>T: “What if I told you that the year this poem...was written was 1865...Does that change the meaning of this poem just a little bit –“ S: “Yes..because they speakin” T: “OK. Somebody explain it to me...” S: “Because of the writin. It’s like they speakin ebonics. They not talkin on a regular level. They talking about “And for the little feller.” They not speakin in our term in English there.” T: “What’s ebonics?” S: “Street slang... Ebonics is like language. A language that we used when we wasn’t taught anything.”</p>	<p>T: “OK. Complete this worksheet on letter—sound relationships based on what you learned in your reading groups this morning when you reviewed letter—sound relationships in your basal reader.” <i>The students’ responses to the teacher’s intertextual link determine whether this example counts as an instance of intertextuality. So, while the teacher may have (a) proposed an intertextual link that the students (b) acknowledged, the students might not (c) recognize what the intertextual link actually is (e.g., a student may have been absent, may not remember, etc.).</i></p>	<p>If teacher and/or students (a) propose, (b) acknowledge, and (c) recognize and intertextual link (a reference to another “text” potentially related to the “text” under discussion), and if the intertextual link has a (d) social consequence, i.e., people in the classroom react to the intertextual link in some way, then code as “Intertextuality.”</p>
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<p>Just In Time Information (McIntyre et al., 2006) (T)</p>	<p>Teacher talk that provides contextually – relevant information to students as they request it</p>	<p>S: “That don’t make sense.” T: “Hmm? You’re thinking that something doesn’t make sense? What doesn’t?” S: (<i>shakes head</i>) “This doesn’t make sense. There’s the...pillowcase.” T: “Well, are we going by the picture or the words? Do the words agree with the picture? Show me the words that don’t make sense?”</p>	<p>T: “Hemingway is the author of <i>A Farewell to Arms</i>. <i>A Farewell to Arms</i> was first published in 1929. This work is known as a semi-autobiographical novel.”</p>	<p>If teacher tells, explains, and/or defines information for students when they ask for it, rather than piling multiple pieces of information into a lengthy series of utterances, then code as “Just In Time Information.”</p>
<p>Modeling (Christoph & Nystrand, 2001; Kong & Pearson, 2003) (T)</p>	<p>Teacher explicitly talks about how she or he is thinking about the content of a particular passage by considering, among other things, the historical context within which the literature is set, the etymology of particular words as they inform the meaning of a given text, or the reading strategies she or he drew upon to make a particular inference.</p>	<p>T: “Pseudonym. This is a prefix, pseudo (<i>circles and points to pseudo on the board</i>). What’s a pseudo? Something that’s pseudo.” (<i>Ss guess blindly – “meñudo?” “pseudo what?” – and finally give up.</i>) T: “Well, let’s try it in Spanish. See if anyone knows what it is in Spanish. Seudónimo.” (<i>S responds, in Spanish, that the word has something to do with a</i></p>	<p>T: “Pseudonym. This is a prefix. Does anyone know what a pseudonym means?” S: “A disguise?” T: “No, a pseudonym means ‘false name.’ So it’s a sort of nickname.”</p>	<p>If the teacher calls attention to the thought processes involved in making sense of a text, then code as “modeling.” If a segment of modeling contains a rhetorical question, then consider the rhetorical question as part of the modeling.</p>

		<p><i>name.</i>)</p> <p>T: “Okay what about the name? What does this mean, that says something about, This means “name” (<i>circles nym</i>)? So something about a name.”</p> <p>(<i>Ss suggest “same name” and “opposite name.”</i>)</p> <p>T: “This is a prefix that means false. So false name is what. So it’s sort of nickname.”</p>		
<p>Nonstrategic Concessions/Rethinking (Keefer et al., 2000; Knoeller, 2004) (S)</p>	<p>During the course of discussion, students make voluntary or spontaneous changes in their reasoning based on the quality of the dialogue that arises, or their own “thinking out loud.”</p>	<p>S: “Yeah, since they heard everything else from all their friends and they gave...he made all their friends rich, why didn’t he make the other...all the other people rich? Well, it is his treasure so he has to keep some for himself, but, he had money left over, enough to give some to the rabbits.”</p>	<p>S1: “Well, I think that he didn’t give it wisely because he didn’t really like...do anything with the money, he didn’t like...”</p> <p>S2: “Ya. He just like gave it to people, they didn’t do anything for him.”</p> <p>S3: “He just like gave it away.”</p>	<p>If a student concedes a point of view in order to avoid a potentially constructive intellectual conflict, then do not code as “Nonstrategic Concession/Rethinking.” If student contradicts her or his own previous arguments by agreeing with another student’s point, or if a student is persuaded by another student to change her or his mind, then code as “Nonstrategic Concession/Rethinking.”</p>

<p>Open Discussion (Applebee et al., 2003; Nystrand, 1997; Nystrand & Gamoran, 1991) (T & S)</p>	<p>Student-teacher interactions in which an open exchange of ideas occurs among students and/or between at least three students and the teacher. Uptake of authentic questions and the absence of inauthentic questions characterize open discussion.</p>	<p>S1: "It said that he doesn't want to reveal it to the sheriff because...it would ruin, you know, Boo's life." S2: "Right." S3: "Even if he totally [did it]." S4: "He'd get all this attention and he couldn't, obviously." S5: "No, he wouldn't be able to [continue to live as before] if they all found out that he did it." T: "Why not?" S5: "Well, he's not going to have to go to trial, and, uhh, ...all this stuff, and everyone will know about that he has..." S6: "I think it's worth it..." T: "So you think Heck Tate was wrong in covering up?" S7: "Yeah! Well, Heck Tate said that anyway, it's gonna be self-defense anyway..."</p>	<p>T: "According to the poet, what is the subject of the <i>Iliad</i>?" S1: "Achilles' anger." T: [Looking for another answer] Where does the action of the first part of Book I take place when we enter the story?" S2: "On the Achaean ship?" T: "Well, they're not on their ships. Let's see if we can give you a little diagram..." S3: "Was it on the shore?" T: "Yes, it's on the shore."</p>	<p>If three or more students respond to each other's ideas without the teacher's interjections, then code as open discussion.</p>
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<p>Student Questions (Nystrand, Wu, Gamoran, Zeiser, & Long, 2003) (S)</p>	<p>Students spontaneously pose an authentic question without being asked to do so by the teacher.</p>	<p>T: “Taxes. What it said—Magna Carta said...you, monarch you...okay...cannot go out and tell the people to give you taxes. You have to come and ask us in the parliament and that we are in turn to tell you if we will give you taxes.” S: “How did they get the bravery to tell the king that he can’t do that?” T: Okay. Good question. Good question!! Whatever happened that people could get enough guts?”</p>	<p>T: “What are some questions that we could generate for the author of this text?” S1: “When did you write this story?” T: “Okay.” S2: “Who did you base the main character on?”</p>	<p>If student questions function as display, test, or inauthentic questions—questions that have a pre-specified answer—then do not code as “Student Questions.”</p>
<p>Reasoning: Hypothetical, Personal, Event, Character, Language (Keefer et al., 2000; Morocco & Hindin, 2002) (S)</p>	<p>Student provides examples to support their reasoning through an interpretation of a text.</p>	<p>S: “I don’t think it was wise for Dominic to give away all of his money, because if he does that all of the time when he gets his money, he is gonna run out of money in a very short time.” (Reasoning-Hypothetical)</p>	<p>S: “I don’t think it was wise for Dominic to give away all of his money.”</p>	<p>If students’ claims are supported with hypothetical examples, then code as “Reasoning-Hypothetical; if students’ claims are supported with personal examples, then code as “Reasoning-Personal”; if students’ claims are supported with examples of a character’s past action or motive, then code as “Reasoning-Character”; if students’ claims are supported with examples that illustrate</p>

				the purpose of an event or happening, then code as “Reasoning-Event”; if students’ claims are supported with examples that identify aspects of the author’s writing or the language of the text, then code as “Reasoning-Language”
Using Student Knowledge (Kong & Pearson, 2003) (T)	Teacher facilitates students’ participation in discussion by calling attention to what students say and do, and by calling attention to effective discussion moves that students make.	T: “A few times I heard people say, ‘I think what she means is....,’ or ‘I think what he means is...’ It sounds like you’re clarifying that and there’s an opportunity for the other person to say, ‘Yeah, yeah’ or ‘No, that’s not what I mean.’ So that is really good.”	T: “Please check your answers with a partner to make sure your responses are the same and correct.”	If teacher (a) identifies specific and effective language used by students during discussion (e.g., “I heard people say, ‘I think what she means is...’”), (b) asks more knowledgeable students to model effective discussion strategies (e.g., asking students to provide evidence for their claims), ask students to teach any newcomers to the class how to participate effectively in discussions, or uses student-generated texts to model literary response, then code as “Using Student Knowledge.”
Quasi-Authentic Questions (Nystrand & Gamoran, 1991) (T)	Questions posed by teachers that have more than one, but a finite number of possible correct answers.	T: “What else?” (<i>to probe for additional “right” answers</i>).	T: “What else?” (<i>to act as a negative evaluation toward a student response</i>).	If question allows 1 of n possible right answers, code as quasi-authentic.

<p>Uptake (Christoph & Nystrand, 2001; Nystrand, 1997; Nystrand et al., 2003) (T & S)</p>	<p>When a participant in a discussion uses another participant's utterance (question or statement) to extend or deepen the discussion. Uptake is often marked by deictic references, or the use of pronouns that refer back to previous answers (not questions).</p>	<p>From a discussion of <i>The Odyssey</i>: T: "What do they have to do to Polyphemus?" S: "Blind him." T: "How come the plan is for blinding Cyclops?"</p>	<p>From a discussion of <i>The Odyssey</i>: T: "Who is the author of <i>The Odyssey</i>?" S: "Homer." T: "And when was the text written?"</p>	<p>If teacher or student uses a student response (e.g., by paraphrasing, revoicing, or incorporating student response into a question) to extend, deepen, or elaborate the discussion, then code as "Uptake."</p>
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APPENDIX B

SEMIOTIC MEDIATION CODING SCHEME FOR SMALL GROUP DISCUSSIONS

Code Label: <i>Student Moves</i>	Definition	Positive Example	Negative Example	Decision Rules
Metatalk (Brooks & Donato, 1994)	Speaking and using other semiotic tools to facilitate the completion of a task by promoting interaction	S: "I think Hamlet was strange, well not strange, but, like an enigma." or S: "I'm going to draw his eyebrows like this (<i>makes a gesture in the air to indicate that the eyebrows will be pointy</i>)."	S: "That's not what enigma means." or S: "Good for you (<i>rotates pointer finger in the air to express inauthentic enthusiasm</i>)."	If student talks about the language that the student is using, as if the student were thinking out loud, or if the student uses other semiotic means such as gesture or sketching in order to find out what she or he is actually thinking, then code as "Metatalk." Do not code talk that is not germane to the task and does not facilitate conversation as metatalk.

Intersubjectivity (Brooks & Donato, 1994)	Speaking and using other semiotic tools to define the procedures that will be used with others to complete a task	S: “Are all of these questions dealing with the first act of the play?” or S: “If only one pose could capture all of Hamlet’s complexities, what would it look like?”	S: “How long do we have to do this?” or S: “Am I done yet (<i>after one minute holds up a an undifferentiated clay mass that reads ‘Hamlet’ carved with a toothpick at the base of the form</i>)?”	If students’ talk or use of other semiotic tools establishes a shared understanding of the task that they are engaging in, then code as “Intersubjectivity.” Do not code sarcastic orienting talk or gestures, sketches, etc., as “Intersubjectivity.”
Goal Formation (Brooks & Donato, 1994)	Speaking and using other semiotic tools to clarify the purposes and make sense of a task	S: “Okay, the idea here is to figure out a way to answer these questions using these materials here?” or S: “Wait. This model is just reproducing what the text says. We should focus on what the question is asking.”	S: “You’re doing it wrong.” or S: “This is the way you’re supposed to do it (<i>uses a straight edge to draw a horizon line as opposed to another student’s attempt to draw the horizon free-hand</i>).”	If students are clarifying the purposes of the task for themselves or for others by specifically reminding themselves or others about the instructional goals mentioned or articulated through written directions by the instructor, then code as “Goal Formation.” Do not code as “Goal Formation” any evaluative or judgmental remarks by students that indicate one right way of achieving the goal(s) of the task.

APPENDIX C

INTERVIEW PROTOCOL

Multimodal Questions

1. How did you decide to create this project with your group?
2. Why did you use the materials that you chose?
3. What sorts of interpretations have your classmates come up with in response to your project?
 - a. What do you think of their interpretations?
4. What aspect of TITLE OF TEXT does this project deal with?

Unimodal Questions

5. How did these questions help you to understand TITLE OF TEXT?
6. How did your group decide on the answers for each question?
7. Did any of your group members have a different interpretation than you had?
 - a. What did you think of their interpretations?
8. How did you resolve any disagreements or conflicts that occurred during your group's discussion of these questions?

Discussion Questions

9. How would you describe the discussions that you have in English class?

10. What is the best part of these discussions?
11. How do you think that discussing TITLE OF TEXT helped you to learn?
12. What are some significant moments that you recall from discussions of TITLE OF TEXT?
 - a. Why do you think that you remember these instances?
 - b. How did these moments influence how you were making sense of TITLE OF TEXT?

Multimodally- and Unimodally- Mediated Discussion Questions

13. How do you think that your work in small groups prepared you to participate in the discussion of TITLE OF TEXT?
14. Think back to all three projects that you've completed this semester. Which one was the most helpful in terms of preparing you to discuss the text and why was it the most helpful?
15. Think back to all of the whole class discussions that you've participated in this semester. Which discussion was the most helpful in terms of learning the information in the text and why was it most helpful?

APPENDIX D

STUDENT BACKGROUND SURVEY

Name: _____

Period: _____

Please answer the following questions as completely as possible. This information will inform some of the activities that we will do this semester in class. Thank you for your participation!

1. How would you describe the kinds of literature discussions in which you have participated?

2. Based on your experiences participating in discussions, what do you think is the purpose of literature discussions in English class?

3. About how many discussions did you participate in last year?

4. How do you typically participate during literature discussions?

5. Please circle all of the following computer, artistic, graphic and/or technological skills that you are able to do:

- A. Make a Facebook profile
- B. Use instant messaging
- C. Text your friends
- D. Create a webpage
- E. Create a YouTube! Video
- F. Burn CDs
- G. Draw, paint, or sketch
- H. Create sculptures
- I. Compose or perform music
- J. Communicate using sign language
- K. Design a "Second Life" character

What other multimedia (computer/artistic/graphic/technological) skills do you possess?

APPENDIX E

TRANSCRIPT KEY

(xxx)	inaudible speech
(words)	guess at speech
[words]	overlapping speech
=words=	immediately connected speech
WORDS	speech increases in volume
wo::rds	syllables extended in speech
<u>words</u>	emphasized speech
<i>words</i>	researcher's comments for clarification

APPENDIX F

SAMPLE DISCUSSION HANDOUT

Beowulf, sections 6-9 discussion activities

NAME:

Unit Question: How does one's perspective influence the way a "hero" can be understood?

OPENING: read and review 2nd packet. Complete bottom half of comparison chart from yesterday. Review the notes sections and questions below.

1st Packet (Ch. 1-3)

Ch. 11 in 2nd packet – the arrival of Beowulf. Especially focus on Unferth's challenge and Beowulf's response.

Ch. 12 in 2nd packet – the battle with Grendel. Especially focus on Grendel's explanation of why he is losing.

Topics for discussion of perspective.

1. *How do the Dane's feel about Beowulf's arrival? How do they respond to how Beowulf answers and insults Unferth?*
2. *Why does Grendel think he is losing?*
3. *Which story is more believable, the original Beowulf or Grendel? Whose version do you trust?*

WRAP-UP

See Newspaper Article activity.

DISCUSSION RULES

1. You must have knowledge of the text to add to a productive discussion.
2. Involve only the current text in discussion, so that everyone has equal access to the ideas.
3. Support your contributions with words from the text—be specific so that all know from where your support is coming.
4. You are encouraged to ask questions, but do not be the first to answer your own question. Involve everyone.
5. Listen carefully to all members of the discussion. They may have insight that helps your interpretation (and your ability to succeed on future assessments).
6. Those who most need to hear your comments are your fellow classmates. Engage them in the discussion instead of directing all comments toward the teacher.

DISCUSSION SELF-SCORING RUBRIC

- | | | | | |
|----|--|---|---|-----------|
| 1. | I made helpful comments during discussion. | | | |
| | 1 | 2 | 3 | 4 |
| | Not true | | | Very true |
| 2. | I listened carefully to the entire discussion and did not distract myself or others. | | | |
| | 1 | 2 | 3 | 4 |
| | Not true | | | Very true |
| 3. | I read carefully, took notes, and answered all written questions. | | | |
| | 1 | 2 | 3 | 4 |
| | Not true | | | Very true |

APPENDIX G

LIST OF MULTIMODAL ACTIVITIES

Artistic Renderings (Smagorinsky, 1995)

Body Biography (Smagorinsky & O'Donnell-Allen, 1998)

Creating Book Reviews through Collage (Siegel, 1995)

Gallery Walk (Albers, 2006)

Models (Smagorinsky, 1995)

Musical Scores (Smagorinsky, 1995)

Mask Making (Zoss, Smagorinsky, O'Donnell-Allen, 2007)

Process Drama (Wilhelm, 2008)

Role-Playing Themes (Siegel, 1995)

Sketch-to-Stretch (Berghoff et al., 2000; Whitin, 2005)

Subtext Strategy (Clyde, 2003)

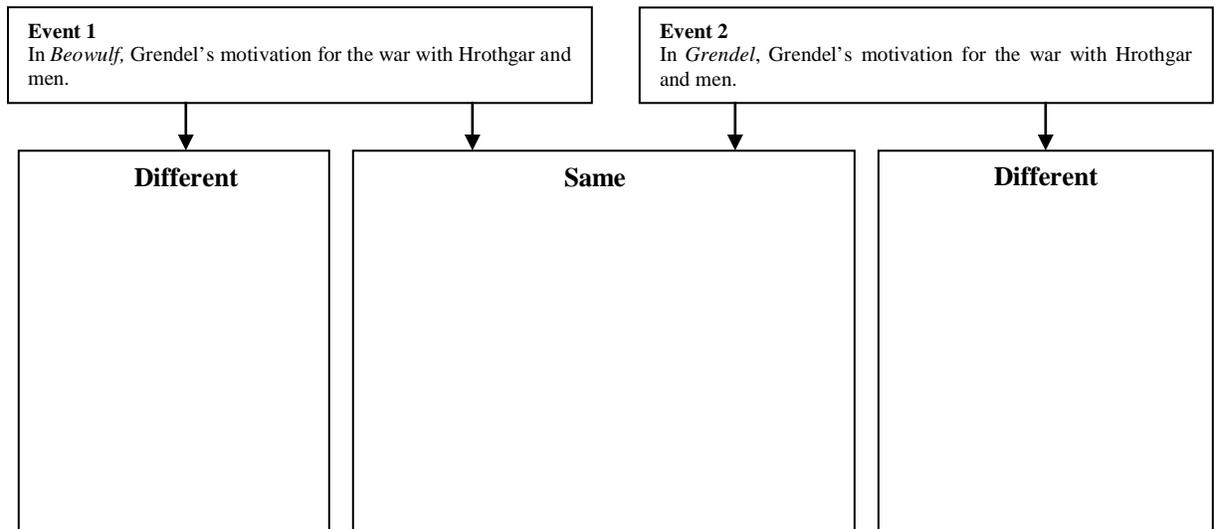
Text Productions Mixing Graphics, Visual Images, and Sound (Vincent, 2007)

APPENDIX H

COMPARE AND CONTRAST MAP

Beowulf and Grendel Comparison

Directions: you must place at least 3 elements in each box below. At least 1 element in each box should be a direct quotation from the texts.



Event 1
In *Beowulf*, the people's and Grendel's feelings toward Beowulf.

Event 2
In *Grendel*, the people's and Grendel's feelings toward Beowulf.

Different

Same

Different

APPENDIX I

CYCLE 1 MULTIMODAL SMALL GROUP INSTRUCTIONS

Macbeth Culminating Discussion Prep Questions, 3rd Period

*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.

*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.

*You may find it useful to 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.

1. What is Macbeth's tragic flaw?
2. Synthesize the meaning of this play using the materials provided to you.
3. Construct something using the materials provided to you that captures a theme of *Macbeth*.
4. Make something using the materials provided to you that could function as a metaphor that could describe Macbeth's actions and/or thoughts from the beginning of the play until the end.
5. Create something that shows what you think Shakespeare means to say about "human nature" through this play.

APPENDIX J

CYCLE 1 UNIMODAL PRODUCT: EDDIE, LUKE, AND ALLISON

Macbeth Questions # 5 Eddie , Luke , Allison –response

Throughout this play you see both the good and bad sides to Macbeth, early in the play as a thane Macbeth is looked at as a great person. Then later in the play you find Macbeth kills peoples out of jealousy and envy and his human nature changes. This is completely evil he kills lady Macduff and the son calling them such words as eggs and fry's of treachery. This relates to human nature because Macbeth got jealous just like people today get jealous or envious and instead of making the right choice and thinking it through Macbeth is so fired up that he kills Macduffs family. This human nature is very often seen today in the real world. Even though people don't like to admit it jealousy very often is the motivating factor.

When Macbeth was planning on killing Duncan he was having second thoughts about it because he felt guilty about it. Duncan comes to Macbeth's castle for supper and Macbeth makes a speech to Lady Macbeth about what t he's going to do to Duncan. Macbeth is contemplating if he wants to kill Duncan or if he doesn't want to kill him. Macbeth says “ If we could get away with the deed after it's done, then the quicker it were done the better. If the murder had no consequences and his death ensured success. If when I strike the blow that would be the end of it here right here on this side of eternity we'd willingly chance the life to come. We teach the art of bloodshed then become the victims of our own lessons. This evenhanded justice makes us swallow our own poison. Duncan is here on a doubled trust first because I'm his kinsman and his subject then because I'm his host who should protect him from his murderer not bear the knife.” Macbeth is saying that he shouldn't be the one that kills him but be the one that protects him from being killed by the murderer. There's tension between what he wants and what he doesn't want to do. Macbeth wanted to become king so decided the only way that he could become king is if he kill Duncan but he also doesn't want to kill Duncan because he believes it the wrong thing to do. When he was having second thoughts about killing Duncan can show that he had some good in him. When he finally killed Duncan it was bringing out the evil part of him because he actually went through with killing the king. The way that its also showing that he's evil is that he wanted so he went and killed Duncan to become king.

The first event that destroys all that is good in Macbeth, is the killing of Banquo. This is a good example, of how there are two sides battling each other in every person. Banquo was Macbeth's best friend, and loyal companion and followed him until the end. Macbeth's reasoning for killing Banquo was "To be thus is nothing, but to be safely thus: our fears in Banquo Stick deep, and in his royalty of nature Reigns that which would be feared. 'Tis much he dare, And, to that dauntless temper of his mind, He hath wisdom that doth guide his valour to act in safety. There is none but he whose being I do fear: and under him my genius is rebuked". Banquo was the only other one to hear, in person, what the witches prophecies were, and therefore can tell other people what the witches saw. Macbeth is jealous of Banquo because the witches also mentioned Banquo as the father of a line of kings and Macbeth wanted the prophecy to go all to him. Macbeth wanted to make sure that his title of king was secured by, deciding to kill Fleance, and eliminating the person next in line to be king. Macbeth is angered by the fact that Fleance is in a line of future kings. Macbeth's greed and lust for power, as show in his dark side, consume his thoughts and force him to kill Banquo and attempt to kill Fleance.

APPENDIX K

CYCLE 1 UNIMODAL PRODUCT: JOSH, ALAN, AND NATHAN

Josh
Alan
Nathan

Macbeth's Downfall

What does it take to lead to a great warriors downfall? A single man and his son? Murder? Or how about just a simple bad conscience? Several events brought Macbeth's head to the tip of Macduff's sword.

At one point in his life, Macbeth was the well-known, loved and kind person from town. Until one day Macbeth decided to become king. Macbeth did not want the conscience from killing the king to bear on him, but because Lady Macbeth wanted the fame, and royalty, the deed was done and king Duncan was killed. Because of Macbeth's overreaching ambition to become king and rule the land, he did not think of the consequences and how this would change the way his life is lived until death. Once Macbeth killed one person, and became king the overwhelming power took control of him and changed him from the nice Macbeth to the evil Macbeth that everyone hates and wants dead. If it wasn't for his Ambition to become king Macbeth would have had a comfortable life, being friends with everybody and having no problems, but because of his overreaching ambition, it got him and his wife killed.

Banquo and his son Fleance had always been loyal to Macbeth. But Banquo had heard the same prophecy that Macbeth had and that's what led to everything. Banquo knew his son would be king and so did Macbeth. So, Macbeth hires murderers in order to kill one of his most loyal thanes, Banquo. After this was done, Macbeth had gone crazy and started to see dead people.

Macbeth's final act of over ambition is when he decided to kill all of Macduff's family and servants. He does this because he feels Macduff is a major threat. When he goes to England to get Malcolm and the kings help. He is a traitor so Macbeth has a slight excuse. Macbeth must think that since Macduff is leaving he is losing all his power he fought so hard to get.

APPENDIX L

CYCLE 1 UNIMODAL PRODUCT: NATALIE, ELIZABETH, AND MIKE

Natalie, Elizabeth, and Mike

Period 2

As Fierce as a Lion

What does one think of when they think of a lion? An animal that's fierce, wild, scary, and violent? Many people would agree with those characteristics, which is why the lion has often been referred to as "King of the Jungle." The play Macbeth, by Shakespeare, tells the story of a Scottish thane who becomes overridden by his ambitions to become king. When Macbeth manages to become king, he and his wife rule the kingdom through scandals, violence, and the impression that nobody will ever find out the means they used to achieve their dreams. Many of Macbeth's characteristics are comparable to that of the powerful lion. The metaphor, Macbeth is a lion, describes his actions and thoughts throughout the play because it depicts the actions of Macbeth and his wife.

As if a strong lion in his pride, Macbeth wants to challenge the alpha male. After visiting with the witches and hearing their prophecies, Macbeth is overwhelmed hunger to become King of Scotland. With Duncan being the king, or alpha male of Scotland, Macbeth plots to kill him and take his. Like the lion, Macbeth takes advantage of "factors that reduce visibility." When Macbeth murders King Duncan, he does so in the cover of night, striking when his prey when he least expects it and is most vulnerable. When Macbeth achieves his goal of becoming king, he begins to become paranoid. Ironically, He fears the people closest to him will deceive him in order to take what, in his mind, is meant to be his, the crown. Feeling that Banquo and his son are a direct threat to his position as king, Macbeth eliminates any chance by killing Banquo, much like the alpha lion would defend his position against any other males that challenge him. Also in fear that Macduff is a threat, Macbeth plans the murder of Macduff's wife and son. When it comes to the final battle between the English troops and Macbeth, even though Macbeth realizes that he has made a mistake, he continues to fight. Like a lion that will give his everything for his cause, Macbeth is determined to fight until he is taken down. Macbeth is a lot like a lion because of his actions, but this is also true because of his relationship with this wife.

Lady Macbeth takes on many more responsibilities than the average woman in Shakespeare's time period, as does a lioness. A lioness has to catch food for her family, along with other jobs that a woman would not be thought to have because they are considered "manly" responsibilities. Several times throughout the play, Shakespeare shows the audience that Lady Macbeth forces her husband to do evil things by questioning and insulting his manhood. When Macbeth questions his plans and actions, or is feeling guilty for what he has done, Lady Macbeth is there to tell him that a "real man" would be able to go through with his plans, and that what's done is done. Lady Macbeth also has to clean up after Macbeth when he fails to carry out a plan the way it was meant to be. She has to go back and position the daggers after Macbeth kills the king, and she has to make up a cover story for Macbeth's disruptive behavior when he sees the ghost of Banquo. As with a family of lions, the man is thought to be the leader, the strong backbone that holds the family together. While Macbeth is struggling with his own guilty conscience, Lady Macbeth has to step in and take the role as the strong force holding Macbeth up in order to make it seem like nothing is wrong. She strives to keep Macbeth and the situation they have created for themselves under control, while also trying to convince people around them that Macbeth is a strong man, leader, and that they should have no reason to consider him of these horrible tragedies. The job of the lioness can be seen as the "dirty work" of the family because she has to hunt, as well as tend to the children, while the male is the strong leader role. Lady Macbeth is comparable to a lioness because of her fierceness, and abilities to step in and do the dirty work in order to get things done and take care of the family.

Macbeth and Lady Macbeth share many qualities with a male and female lion because of their lifestyle. Similar to a lion, Macbeth preys on the weak in order to get what he wants. Lady Macbeth goes beyond normal feminine roles, such as the lioness does when hunting for her family. Both Macbeth and Lady Macbeth have done many horrible things that are beyond anything that could be considered acceptable in order to get where they want. The question that remains is, is either of them more at fault than the other for their misfortune, being a little to fierce?

APPENDIX M

CYCLE 2 UNIMODAL SMALL GROUP DIRECTIONS AND DISCUSSION

QUESTIONS

The Natural Culminating Discussion Prep Questions, 2nd period

*You will need several sheets of blank paper and a pen or pencil.

*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. Please ask questions, but be sure that you have tried to answer them for yourself first.

Prompts:

1. Brainstorm for all themes and motifs. Then choose either a theme or motif that no other group has yet chosen. Discuss what you know about the themes and motifs.

Themes:

Character tested by misfortune
Human reaction to both success and loss
The importance of ambition
The nature of passion

Motifs and Symbols:

Birds
Trains
Water
Wonderboy

2. Select: Choose one theme that you find most interesting, and about which you know the most as a group.

2. Select: Choose one motif or symbol that you find most interesting, and about which you know the most as a group.

3. Identify: Find at least three different passages in the text in which your theme is evident.

3. Identify: Find at least three different passages in the text in which your motif or symbol is evident.

4. Create a “found poem” in which you represent how this theme, motif, or symbol functions in *The Natural* using evidence from the text.

A. From the list of at least three different passages you selected from the novel, compile a collection of words or phrases that are particularly descriptive. You may need to keep returning to the novel to gather more lines. Don’t worry about context or page numbers. Just jot down as many examples of interesting words and phrases related to your theme, motif, or symbol as you can find.

B. Select and organize the words and phrases in a way that creates new, coherent meaning as a poem about your theme, motif, or symbol. You may need to add your own words to help this work.

i. Found poems must be at least **20** lines long and will be evaluated on the attached rubric.

C. Write a short description/analysis of the poem (as if it was an introduction to the poem written by the editor of a poetry anthology).

D. Share! All poems will be read to the class and discussed.

OBJECTIVES	0-5 Low Performance	6-7.5 At or Below Average	8-9 At or Above Average	9.5-10 Exemplary Performance
CONTENT	<ul style="list-style-type: none"> *Little use of text or research evident *Little to no detail or explanation *Lacks evidence of topic or development of ideas *Unclear if the response includes any details pulled directly from the text 	<ul style="list-style-type: none"> *Some use of text or research evident *Choppy, superficial content lacking in detail *Limited development of ideas with inadequate explanation *Response includes one or two details pulled directly from the text 	<ul style="list-style-type: none"> *Sufficient and obvious use of text or research *Evident details appropriate to content *Logical development of main ideas with adequate explanation *Response obviously includes multiple details pulled directly from the text 	<ul style="list-style-type: none"> *Extensive and obvious use of text or research *Substantial detail with illustrative content *Seamless and in-depth development of sophisticated ideas *Response obviously includes a great number of details pulled directly from the text
CRAFTSMANSHIP	<ul style="list-style-type: none"> *Little evidence of creative element *Absence of detail and/or many inaccuracies *No effort is evident; absence of originality or style *Construction is flawed with poor or thoughtless selection of items 	<ul style="list-style-type: none"> *Few details, some inaccuracies *Little effort is evident *Dull with little evidence of originality; assembly seems haphazard 	<ul style="list-style-type: none"> *Varied details; accurate; some insight *Good effort is evident; clear, well-organized construction *Creative within requirements 	<ul style="list-style-type: none"> *Fine detail, accuracy; shows insight *Great effort is evident; clear, dynamic, fluent, well-organized construction *Creative beyond requirements

APPENDIX N

CYCLE 2 UNIMODAL FOCAL GROUP FOUND POEM: “YOU SORTA NEVER DIE”

that's right
the best
cream of the crop
the striker hero
Roy Hobbs
how wonderful
the best there ever was
good for 10 years
I am terrific
think of the future
let him play me
no second pickings
homers and triples
beginners luck
Roy's fame grew
to be the champ
even with one eye
I will wow them
All those records
I wanted everything

This poem is all about Roy and how great he was, is, and wants to be. Small quotes from the book can describe his ambition.

APPENDIX O

CYCLE 2 WHOLE CLASS DISCUSSION HANDOUT

The Natural Culminating Discussion Questions

NAME:

Unit Questions: What is the role of the tragic hero in modern times, and how is this manifested in *The Natural*?

Pre-Discussion

Study what the groups have produced and take note of what you find interesting—especially if you strongly agree or disagree with the interpretation a group has proposed in its response.

Notes:

Discussion Questions – feel free to bring up your group’s project or notes from your pre-discussion walk as appropriate.

1. How do the themes of *The Natural* contribute to Roy’s status as a tragic hero?
2. How do the motifs and symbols within *The Natural* contribute to the meaning of the text?
3. Who is to blame for Roy’s downward spiral? How does your reading and portrayal of the novel’s themes, symbols, and motifs make sense of who or what is at fault for Roy’s downfall?
4. In what ways is Roy a modern tragic hero; that is what are the unique aspects of Roy’s personality and the choices that he makes that contribute to his ultimate downfall?
5. If Roy’s only goal was to “be the best there ever was,” why did he allow so many things to come in between him and his goal?

WRAP-UP

What does this say about modern life? About contemporary “heroes” in society?

APPENDIX P

CYCLE 3 MULTIMODAL SMALL GROUP INSTRUCTIONS

The Princess Bride Culminating Discussion Prep Questions, 2nd period

*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 questions form the list and plan a fully-developed response, including individual responsibilities for completing the response.

*Synthesize 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:

1. Using the materials provided to you, demonstrate the growth or development of one particular character from the beginning of the novel to the end.
2. Brainstorm the development of each of these characters before choosing one for your project:
 - a. Westley
 - b. Buttercup
 - c. Inigo
 - d. Fezzik
 - e. Humperdinck

APPENDIX Q

CYCLE 3 UNIMODAL FOCAL GROUP DIALOGUE JOURNAL

Dear Vizzini,

Fezzik and I wanted to let you know we are live because of the noble acts of the man in black. We realized we didn't belong in the line of work you had us in. We have accomplished many things since that realization and have been working with the man in black. I for one finally had my revenge on the man who killed my father. Also since we left you Fezzik has become more independent, and is much smarter than you give him credit for. WE both realized we could accomplish more by doing good instead of being under your rule. I also have overcome my alcoholism because I have no more sorrows to drink away. HELLO MY NAME IS INIGO MONTOYA...AND I KILLED THE 6 FINGERED MAN.

Dear Vizzini,

I been defeated. Man in black has beaten me in battle of strength. He let me live and I alone. Vizzini I don't know what to do anymore. I join brute squad until I found Inigo, drunken and nasty. We find man in black, who is a good guy and wants to stop wedding. I am beginning to think for myself. I can finally rely on myself.

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