OFFLINE MEDIATORS ONLINE:  
WRITING ACTIVITY IN TWO MIDDLE SCHOOL CLASSES

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DISSERTATION
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ABSTRACT

Many look to digital technologies to promote more equitable literacy learning. Even potentially transformative technologies, however, are neither created nor used within a vacuum. Instead, a range of mediators influences their design and implementation (Kaptelinin & Nardi, 2006). Framed by cultural historical activity theory (CHAT) (Leont’ev, 1981; Vygotsky, 1978), this dissertation broadens the study of students’ literacy learning in educational settings by considering offline mediators as constitutive of students’ online literate activity. Specifically, this comparative case study situated in two English language arts classes taught by the same teacher (one with a mandated curriculum and one without a mandated curriculum) in a junior high school with a diverse, low-income population, addresses the following research questions: What was the nature of students’ online literate activity in each of the two English language arts classes? In particular, what mediators were evident and how did these mediators influence students’ online literate activity and the literate identities available to students?

The study employed ethnographic methods to investigate students’ online literate activity over the course of a school year. Activity systems analysis (Engeström, 1987) and a tracing methodology (Prior, 2004) guided data collection and analysis. Findings indicated that students’ online literate activity in the two classes was unequal and inequitable. In the class with the mandated curriculum, student activity was premised on a didactic pedagogy focused on reading strategies, and students were positioned as struggling learners in need of remediation. In the class without the mandated curriculum, student activity involved composing, and students were positioned as collaborative creators; their activity, however, was also restricted. In both classes,
offline mediators significantly influenced online activity, including ideologies of literacy and schooling, teachers’ initiating texts, and the accountability policy context.

This study reinforces the importance of attending to the influence of offline mediators on K-12 online learning environments and offers implications for practice. Drawing on Cole and Griffin (1983), the researcher argues for the use of online environments for re-remediating (transforming the mediators in students’ learning environments) as opposed to remediating (attempting to fix students’ “deficits”).
For Bill and Emma

.:.
When I attended junior high school (secondary school) in Kent, England, writing involved spelling, copying, and testing. I hated and avoided it. The thirteen-year-old me would never have suspected that I’d go on to write a dissertation—or become a literacy scholar! I am deeply grateful to all who have supported and inspired me on this journey.

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Now, I no longer hate writing (although I do occasionally avoid it), and I no longer regard it as merely spelling, copying, and testing (although sometimes in schools it still seems that way). Now, I have a different view of writing. As I am about to enter into my first faculty position at Illinois State University, writing has become for me what a wise thirteen year-old featured in this study said writing means to him: “life.”
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CHAPTER 1

INTRODUCTION

Despite considerable evidence that literacy is social, ideological, and highly complex, much of schooling continues to rest on the assumption that literacy is individual, neutral, and easily measured (New London Group, 1996; Street, 1984). This assumption, reinforced by accountability policies, is problematic for all students but especially damaging to students from non-dominant communities—those identified within schools as different in terms of categories such as race, culture, language, disability, and low-income (Gutiérrez, Morales, & Martinez, 2009). There are hopes that the use of online learning technologies will promote broader definitions of literacy in schools that will benefit all students; there are also fears that online learning technologies will reinforce narrow definitions of literacy and further increase inequity. Both these hopes and fears are legitimate (Warschauer & Ware, 2008). While online learning environments may offer transformative potential, even the most innovative are neither created nor used within a vacuum. Instead, a broad range of mediators inevitably influences their design and implementation (Kaptelinin & Nardi, 2006; Spinuzzi, 2003). In schools these may include—but are not limited to—educational policies, learning ideologies, curricular materials, and learner identities. In order for online learning environments to promote more expansive and equitable literacy learning for all students, significant attention must be paid to the offline mediators that operate within specific school settings.

Purpose of the Study and Research Questions

The purpose of this study was to examine students’ online literate activity in two language arts classes taught by the same teacher—one with a mandated curriculum and the other without a mandated curriculum—in a junior high school, with a diverse and low-income
population, placed on academic watch status because of persistent failure to meet Adequate Yearly Progress (AYP). The study was guided by the following overarching research questions: What was the nature of students’ online literate activity in each of the two language arts classes? In particular, what mediators were evident in each of the classes and how did these mediators influence the nature of students’ online literate activity and the literate identities available to students?

Providing situated studies of students’ online literate activity in school settings is important because the setting is likely to influence the nature of students’ online literate activity. Extant studies of adolescents’ online literate activity tend to be situated in out-of-school settings (Black, 2009; Chandler-Olcott, & Mahar, 2003; Guzzetti & Gamboa, 2005; Hull & Nelson, 2005; Lam, 2009; Lewis & Fabos, 2005) or in classrooms where the teacher and students are afforded a great deal of creative freedom (Bruce, 2009; Ranker, 2008). Studies within these settings are likely to overestimate the transformative potential of online technologies (Warschauer, 2004). This study is of particular interest because it was set in a diverse and low-income school impacted by accountability policies, and because the study investigated two classes taught by the same teacher – one with and one without a mandated curriculum.

**Theoretical and Methodological Framework**

This study is grounded in cultural historical activity theory (CHAT), a branch of social cultural theory, (Cole & Engström, 1993; Engström, 1987; Leont’ev, 1981; Vygotsky, 1978). CHAT draws attention to the historically, culturally, and socially interconnected nature of activity and asserts that mind and society are mutually constitutive. Rather than serving as a strongly predictive theory, CHAT provides a series of perspectives on human activity and a set
of conceptual tools for describing that activity (Nardi, 1996). The following perspectives are particularly relevant to this study:

Mediators are an inseparable part of human activity. To be clear, mediators do not just influence human activity; they are constituents of human activity. Mediators shape human activity and are shaped by human activity. They shape human consciousness and are shaped by human consciousness. Because mediators are essential to human activity, it does not make sense to attempt to isolate human activity from the mediators that are typically part of it. In acknowledgement of this principle, I must accept that I cannot understand students’ online literate activity by examining the products of that activity alone or the online environments alone. I must also attend to the associated mediators.

Mediators are infused with ideas and practices that are social, cultural, and historical. Because mediators come into being and continue to develop as part of human activity, they are infused with ideas and practices that are social, cultural, and historical. This is true of all mediators, including literacies and online learning environments, as well as schools, classrooms, teachers, and curricular materials. This principle prompts me to consider the ideologies and practices embedded within the mediators that are evident as students engage in online literate activity.

CHAT has been identified as a valuable framework for literacy scholarship because it helps to illuminate the situated and complex nature of literate activity (Gutiérrez, Morales, & Martinez; 2009; Lee & Smagorinsky, 2000; Prior, 1998). For the same reasons, CHAT has also been widely employed in studies of classroom literate activity (Gutiérrez, 1993; Leander, 2002; Moll, Amanti, Neff, & Gonzalez, 1992; Russell 1997). In addition, in recognition that computer
environments are mediators of human activity, the field of Human-Computer Interaction (HCI), has utilized CHAT (Bødker, 1990; Kaptelinin & Nardi, 2006; Nardi, 1996).

In this study, I employed Engeström’s (1987) activity system, as shown in the figure below, as a heuristic that helped me translate complex theory into a manageable unit of analysis.

![Activity System Diagram](image)

Figure 1.1. Activity system, adapted from Engeström (1987).

The construct of the activity system provided a way to consider students’ online activity simultaneously with the mediators within the environment that also constitute this activity. Below I define each of the components of the activity system and some other key terms that I used within my research.

**Definition of Key Terms**

**Subject.** The subject is the individual or group considered the focal agent for analysis of the activity. In this study the students in each of the classes are regarded as the subject.

**Tools.** Tools (also referred to as instruments or mediational means) are the resources used by the subject to accomplish the activity. While the term includes tools in the everyday sense of the word, the term tool is used much more expansively. Tools include items such as a pen or a phone; they also include a map or an algebraic equation; and tools include language and other semiotic resources. In fact, a tool may be anything that a subject uses while engaged in a
particular activity; and, adding to the complexity, tools may be visible or internalized within the mind. My study focuses on tools that are evident as students engage in online literate activity. The online environments used by the students are regarded as tools but each of these environments also contained embedded tools.

**Object.** All activity is regarded as object-orientated (i.e. activity does not exist without an object). The object may simply be defined as the goal of the activity or in more complex terms the object is “the ‘raw material’ or ‘problem space’ at which the activity is directed and which is molded and transformed into outcomes with the help of physical and symbolic, external and internal mediating instruments” (Center for Activity Theory and Development Research, n.d.). In my study I began by considering the students’ assignment as the object of activity, for instance, writing a persuasive essay. I soon realized, however, that the object of activity was often multiple and contested. Were the students, for example, writing a persuasive essay, learning a particular essay structure, completing a task, or performing to obtain a grade? I began to realize that part of my task was to recognize the multiple and contested objects of activity.

**Outcome.** The outcome is defined as the result of activity. This is a misleadingly simple definition. The outcome of an activity might be a completed essay or a test result, but it also includes the patterns of thought and attitudes of mind developed while engaged in the activity. These patterns might include students developing an understanding that literacy is primarily about learning simple skills and strategies. It might also include students’ development of particular kinds of identities, such as “struggling learner” or “honors student.”

**Rules.** The rules are the regulations – or cultural norms – that affect the activity. These might include formal and explicit, as well as informal and/or implicit rules. As schools tend to be highly rule-bound places, these rules are often powerful mediators of students’ activity. In my
investigation, I spent a considerable amount of time observing and collecting data to determine the rules that mediated students’ online activity. These rules included policies put in place by the administration that controlled access to computer labs, rules posted in every classroom in the school that set out expectations for students’ behavior, and class routines initiated by the teacher and negotiated within the class activity. Rules are a particularly important part of my study because in other settings – such as out-of-school or in school performing well in terms of AYP – students’ online activity would not be bound by so many rules.

**Community.** The community represents the various individuals or social groups that affect activity. Community members may include those physically present as the activity is taking place as well as those far removed in time and space that influence activity. In my study the community included the students, the teacher, and the district administration; as well as policy makers, and individuals involved in creating the online environments used. As a researcher in the classroom, I was also a community member. Other members of the community, such as family members and friends were not foregrounded in this study.

**Division of labor.** The division of labor refers to the way in which activity is structured among the various participants involved in the activity. Like all the components of the activity system, the division of labor is connected to other components of the system, and thus will influence and will be influenced by them. In a traditional classroom the teacher initiates and directs activity and students listen and respond. The division of labor is relevant because of the hope that online learning environments might restructure learning relationships providing students with more opportunities to act as agents in their learning.

**Offline mediators.** Within the activity system tools, rules, community, and division of labor are all mediators of activity. At times, I talk about offline mediators. While I think this term
is useful because it highlights that many things that influence students’ online activity are far removed from online environments, such as accountability policies, I also recognize that the distinction between offline and online mediators is problematic. For example, online environments are infused with ideologies of literacy, are these online or offline mediators? Similarly, when a teacher’s rubric is embedded within an online environment does this make it an online or offline mediator? As far as I am concerned, more important than making this binary distinction is recognizing that online environments – particularly those used within schools – are influenced by a wide range of mediators that may shape the nature of students’ online literate activity and the literate identities available to students.

**Tensions.** Tensions – or contradictions – are fundamental to human activity. These contradictions, which occur both within and among activity systems, may disrupt human activity but are also essential for transforming human activity (Engeström, 2008). For example, introducing a new tool (e.g., an online environment) to an activity system (a class) will likely cause tension. This tension, which may be both disruptive and productive for students’ activity, will lead to change.

**Identity.** Although identity is not a stated component of the activity system, the production of particular kinds of identities may be regarded as an outcome of activity. This is important because while education often focuses on outcomes in terms of a test result or a completed product, a broader vision of education might consider the identities that are produced through activity. In my study I am particularly interested in learner and literate identities. I use identity in three of the ways described by Moje and Luke (2009). First, identity as mind or consciousness, related to Vygotsky’s (1978) Marxist idea that a person comes into being within the dialectic relationship between consciousness and tool-mediated activity. Second, I use
identity as narrative focusing on how individuals construct identities in the stories that they tell about themselves or about others. Finally, I consider identity as position, associated with how discourses, particularly those coming from places of power, position individuals or groups.

Students’ online literate activity. Above I have defined the various components of an activity system. In this study I investigate each of the two language arts classes, taught by the same teacher, as a separate but related activity system. When I refer to students’ online literate activity, I am referring to the activity that students engaged in while working online in their language arts class, as well as the various mediators within the broader activity system that shaped (constituted) this activity.

Significance of the Study

Current policies place online technologies at the heart of educational reform. In this context companies rally to create and market new online learning environments, and claims are frequently made about the power of these environments to transform and enrich education for all students. This discourse includes assertions that online learning environments will improve student performance, motivate learners, provide opportunities for self-directed learning and data-driven teaching, and close the achievement gap, so that all students can succeed in college and careers. Building on socio-cultural accounts that emphasize the situated nature of literate activity, this study complicates this pervasive discourse by highlighting the following:

- Online learning environments, while often considered new, are a product of human activity that has deep historical roots; consequently, these environments may be embedded with many ideologies, including traditional ideologies of literacy and schooling.
- Offline mediators (e.g., educational policies, mandated curriculum materials, rubrics,
and assignment guidelines) may significantly influence students’ online literate activity—at times, in unintentional or disruptive ways.

- Although students may spend equal instructional time in online literacy environments, their level of access to various literacy experiences, roles, and identities may vary greatly. The fact that some students may be positioned as active producers while others are positioned as passive receivers is a serious equity issue.

Ultimately, I argue that educational policy-makers and researchers considering online learning in schools must attend to offline mediators; consequently, I assert the necessity of recognizing and employing research methodologies that illuminate these mediators. I demonstrate that tracing students’ online activity offline provides powerful insights, and I offer implications for practice.

**Outline of the Chapters**

In Chapter 2, I provide a review of literature relevant to my study. This review is organized into four sections: students’ computer use and literacy test scores, students’ computer-mediated literacy practices, situated studies of literate activity, and accountability policies and students’ literacy learning. I articulate how each of these topics relates to my study, and how my research contributes to this scholarship.

Chapter 3 explains why a case study design and ethnographic methods befit this investigation of students’ online literate activity. I introduce the junior high school setting, the teacher, and student participants from each of the eighth grade language arts classes—the class with the mandated curriculum and the class without the mandated curriculum—and I reflect on my own role within this setting. I also delineate my methods for data collection and analysis,
which draw on activity systems analysis (Engeström, 1987) and a tracing process methodology (Prior, 2004).

In Chapter 4, I present the case of the class with the mandated curriculum. I introduce the class and provide a description of the primary online environment that they used: SOLO. I describe the focus of students’ online literate activity—reading with an emphasis on strategy use and fluency—and demonstrate how offline mediators, in particular the policy context and the mandated curriculum, influenced their online literate activity. In addition, I show how online literate activity restricted the roles and literate identities available to students.

Chapter 5 presents the case of the class without the mandated curriculum and is organized in parallel to Chapter 4. After introducing the class and the online environment that they used, Scholar, I describe students’ online literate activity. In this class, their online activity focused on writing. They engaged in three writing projects involving multiple processes, such as drafting, providing peer feedback, and revising. Offline mediators also influenced their online activity. Some of these mediators were similar to those that influenced the class with the mandated curriculum (e.g., the policy context and school setting); other mediators (e.g., peer reviews, rubrics, and the teacher’s worksheets) were particular to this class. In analyzing this class, I show that more roles and literate identities were available to these students than in the mandated class, but that these roles were still restricted by many of the aforementioned mediators.

Finally, in Chapter 6, I provide a summary and discussion. I synthesize and discuss findings about the various mediators that influenced students’ online activity in the two classes. I argue for the necessity of attending to a broad range of offline mediators when considering the use of online learning environments in schools. In order to illuminate and attend to these mediators, I contend that researchers must use, and policy-makers must recognize, a broader
range of research methodologies. I also propose implications for practice. In conclusion, I outline research limitations and propose a future research agenda.
CHAPTER 2
REVIEW OF THE LITERATURE

The purpose of this study was to examine students’ online literate activity in two language arts classes taught by the same teacher – one with a mandated curriculum and one without a mandated curriculum – in a junior high school, with a diverse and low-income population, impacted by accountability policies. Specifically, I sought to understand the mediators evident in each of the classes and how these mediators influenced the nature of students’ online literate activity and the literate identities available to students. In this review then I not only include scholarship that involves students’ computer mediated literacy learning but also research involving other mediators of students’ literate activity in schools. The body of this review is organized into four sections: students’ computer use and literacy test scores; students’ computer-mediated literacy practices; situated studies of literate activity; and accountability policies and students’ literacy learning. In the conclusion of this chapter I summarize how these various components relate to my research and connect to the CHAT theoretical and methodological framework.

Students’ Computer Use and Literacy Test Scores

In this section I consider studies that examine the impact of computer technologies mainly in terms of students’ literacy test scores. These studies all operate from a similar input-output perspective. The assumption is that by adding the computer technology to the learning environment the students’ output, in terms of test scores, will change. While this research paradigm is different from the approach I use in this study, it is important to review studies from this perspective, as this research paradigm is favored within the current accountability context. I have organized these studies into three groups: large-scale studies, including meta-analysis,
which consider the relationship between computer availability and students’ test scores; studies of one-to-one laptop initiatives and their impact on student test scores; and research of specific computer programs and their effect on students’ test scores.

Many large-scale research studies have considered the impact of digital technologies in terms of students’ test scores. For example, Fuchs and Wossmann’s (2004) study analyzed test scores from the Programme for International Student Assessment (PISA) database to investigate the relationship between student achievement and computer availability. Data for this study was collected from 174,227 students tested in reading (96,855 tested in math) from 31 countries. Initially they found a positive relationship between student reading achievement and computer availability both at home and at school; however, once they controlled for family background and school characteristics, they found no significant effect for availability of school computers and a negative effect for the availability of home computers. Other large-scale studies that have attempted to investigate the relationship between computers and student achievement have had mixed results. Goolsbee and Guryan’s (2006) study found that increasing Internet access in schools did not impact student achievement, while Kulik’s (2003) meta-analysis found a positive effect for student achievement. Positive effect sizes for student achievement were also found in Goldberg, Russell, and Cook’s (2003) meta-analysis of the impact of computers on student writing; and Pearson, Ferdig, Blomeyer, and Moran’s (2005) meta-analysis of the effects of technology on middle school students’ reading achievement.

Studies involving one-to-one laptop initiatives have also examined the relationship between computer technologies and students’ test scores. Gulek, and Demirtas’ (2005) three-year study, for instance, compared middle school student achievement in laptop versus non-laptop classes and found substantial gains in terms of grade point average, writing test scores, and
standardized test scores. Suhr, Hernandez, Grimes, and Warschauer (2010) found that fourth-grade students using laptops outperformed their non-laptop using peers on English language arts (ELA) tests after two years participation in the study. Similarly, other one-to-one laptop studies have also found positive results for students ELA’s test achievement (Bebell & Kay, 2010; Shapley, Sheehan, Maloney, & Caranikas-Walker, 2010).

Other studies have looked at the effect sizes of specific online literacy interventions on adolescents’ test results. The United States government’s Institute of Education Sciences’ (IES) What Works Clearinghouse (WWC), which serves as a resource to help with education decision making, provides reviews of many of these studies (www.ies.ed.gov/ncee/WWC). The majority of the studies that IES reviews, however, fail to meet the organization’s standards for research, which are based on evaluations of topic relevance, quality of outcome measures, adequacy of data reported, and strength of evidence. For instance, of the 56 studies reviewed to determine the effectiveness of the Read Naturally computer intervention, only 1 met IES standards – and even this one was with reservations (WWC, 2013). This study found that the Read Naturally program had potentially positive effects on adolescents’ general literacy achievement (Heistad, 2008).

Similarly, of the 18 studies that examined the web-based intervention Reading Plus, only one met standards – again with reservations (WWC, 2010a). This research, authored by Reading Plus (2008), was found to have positive effects on adolescents’ reading comprehension scores. After reviewing 305 studies of the computer-based reading program Fast ForWord, only eight met standards – six with reservations (WWC, 2010b). Based on these six studies, four of which were authored by the company that creates and markets the program, no discernable effects were found for alphabetics and general literacy achievement, but potentially positive effects were identified for fluency and comprehension (Beattie, 2000; Borman & Benson, 2006; Overbay &
Baenen, 2002; Rouse & Krueger, 2004; Scientific Learning Corporations 2004a, 2004b, 2007a & 2007b). WWC (2010c) also evaluated the *Voyager Reading Programs*, including the *Passport Reading Journeys* (and *SOLO* online component) used by the class with the mandated curriculum in this study. Of the 44 studies reviewed no studies met the WWC evidence standards. Consequently, the WWC was unable to draw any conclusions about the effectiveness or ineffectiveness of the *Voyager Reading Programs*. Studies of the online environment used by the class without the mandated curriculum, *Scholar*, have not been reviewed by WWC.

The studies reviewed in this section make particular assumptions about the nature of literacy and students’ literacy achievement. Computer technologies have been added to the students’ literacy environment but traditional perspectives of literacy within schools have largely remained the same. Literacy is regarded as autonomous and static, involving a series of technical skills (New London Group, 1996; Street, 1984), and reading test scores are used as a proxy for measuring students’ literacy achievement. These studies do not focus on how computer technologies might fundamentally change literacy or students’ literate activity in schools; instead, they are concerned with how computer technologies might raise students’ achievement primarily in terms of test scores.

Results from the studies reviewed in this section are inconclusive about the impact of computer technologies on students’ literacy test scores. This is unsurprising because, as acknowledged in the discussions of many of these studies, contextual factors appear to be extremely important in determining the impact of computer technologies. In particular, school and teacher characteristics are frequently mentioned as making a difference. While researchers working from this paradigm usually attempt to control for variables in their studies, these studies all foreground the technology and background the context in which the technology operates.
From a CHAT perspective the context is not separate from the students’ online activity. The contextual factors – the various mediators of students’ online activity – are consequently of particular interest. In this research project I attempt to provide an alternative perspective by foregrounding the mediators that influence students’ online activity. Given this approach, this study is more closely linked to situated accounts of mediated literate activity in classrooms without computer technologies than it is to the studies described above. For this reason, later in this chapter I include a section reviewing situated studies of literate activity. First, however, in the next section I look more specifically at studies that involve students’ computer-mediated literacy practices.

Students’ Computer-Mediated Literacy Practices

Another way to consider the relationship between digital technologies and students’ literacy is from a practice perspective. What literacy practices do students engage in while using digital technologies? Digital technology scholarship involving students’ literacy practices has tended to focus on the ways in which students’ practices are – or might be – different from traditional school literacy practices when they use digital technologies. First, in this section, I review scholarship that has theorized how technologies might promote broader and more equitable definitions of literacy learning in schools. I then review empirical research that has examined students’ digital literacy practices in out-of-school and school settings.

The New London Group (1996), an alliance of ten educational researchers, proposed the concept of “multiliteracies.” Their use of this term was intended to convey two key points about literacy within contemporary society, which is experiencing a proliferation of new media communication technologies. First, literacy increasingly involves meaning-making in multiple modes that have often been integrated with one another: textual, visual, audio, spatial, and
behavioral. Second, literacy increasingly involves linguistically and culturally diverse forms of meaning-making, which have the potential to catalyze cross-cultural connectivity, rendering linguistic and cultural diversity even more salient now than before. Within these circumstances the New London Group posed questions that remain among the most pressing in education today: Given the reality that our society is so diverse across so many dimensions, how do we ensure that difference is not a barrier to success in education? How do we set learning conditions that allow for full social participation regardless of difference?

The New London Group (1996) identified tension between literacy within school and literacy within society. They criticized traditional views of literacy teaching and learning premised on standardized, monolingual, monocultural notions of reading and writing governed by simple and stable rules. They described how attempts to address cultural and linguistic diversity in schools were met with demands for back-to-basics pedagogy and perceived as crises in education, and pointed to the fact that “despite goodwill on the part of educators, despite professional expertise, and despite the large amount of money expended to develop new approaches, there are still vast disparities in life chances—disparities that today seem to be widening still further” (p. 61). This is just as true today as it was twenty years ago.

The New London Group did not just pose questions; they sought to provide practical responses to those questions. They argued for the necessity of a new literacy pedagogy that took account of shifting realities. The pedagogy that the New London Group (1996) advanced was centered on the concept of design. They described six design elements (linguistic, visual, audio, gestural, spatial, and multimodal) and proposed four pedagogical components:
Situated Practice: Immersion in experience and utilization of available discourse, including those from the student’s lifeworlds and simulations of the relationships to be found in workplaces and public spaces.

Overt Instruction: Systematic, analytic, and conscious understanding. In the case of multiliteracies, this requires the introduction of explicit metalanguages, which describe and interpret the Design elements of different modes of meaning.

Critical Framing: Interpreting the social and cultural context of particular Designs of meaning. This involves the students’ standing back from what they are studying and viewing it critically in relation to its context.

Transformed Practice: Transfer in meaning-making practice, which puts the transformed meaning to work in other contexts or cultural sites. (p. 87)

The New London Group’s manifesto, which was the product of conversations and collaborations among a group of researchers from differing perspectives and experiences, might be taken as expression of their central tenet: the idea that diversity in all its forms should be regarded as an asset. Although it is possible to observe that literacy has always been about diverse meaning-making practices, the New London Group’s point about the necessity of transforming education, particularly for students who have been marginalized in schools, remains no less urgent.

The New London Group’s argument drew on a wide body of scholarship: Dewey’s (1916) educational philosophy espousing principles of democracy; Freire’s (1970) challenge to the “banking concept of education”; Freire and Macedo’s (1987) critical stance of reading both the world and the word; as well as Vygotsky’s (1978) zone of proximal development and broader theories about culture, cognition, and mediation (Wertsch, 1985); Lave and Wenger’s (1991)
“community of practice;” Heath’s (1983) work connecting communities and classrooms; and Street’s (1984) autonomous and ideological models of literacy. In addition, the previous scholarship of the New London Group is also evident, including Cazden’s (1988) and Michael’s (1981) critical investigations of the dynamics of classroom discourse, which revealed the differential access to school literacy for different groups of students; Fairclough’s (1989) and Gee’s (1992) scholarship focusing on language and power; and Cope and Kalantzis’ (1993) work concerning the importance of mastering particular genres as a way to access the power of literacy. Previous work also includes Luke’s work with Freebody (1990), which outlined a four-resource model of literacy in an attempt to bring together whole language, phonics, and critical literacy. This model identified four competences: coding competence, the ability to decode text; semantic competence, the ability to comprehend or make meaning from text; pragmatic competence, the ability to use texts in functional ways to accomplish tasks; and critical competence, the ability to read and analyze texts critically, recognizing that all texts are constructed and ideological (Freebody, 1992).

Since the 1990s, New London Group scholars have extended their work in related but different directions. For instance, Kress’ *Literacy in the New Media Age* (2003) investigated the shift from the dominance of the page to the dominance of the screen. His more recent book, *Multimodality* (2010), provided a framework for bringing together multiple modes of meaning-making. Gee (2004), on the other hand, has explored the notion of “affinity space,” an informal—physical or virtual—learning space where groups of people are drawn together in order to engage in a common activity. Gee’s other critiques of traditional approaches to schooling include *What Video Games Have to Teach Us about Learning and Literacy* (2003). In this book he not only demonstrated the complex literacies involved in playing video games, but
also outlined key principles that might be utilized to support students’ learning, emphasizing active and embodied learning that requires the learner to comprehend and critically consider relationships among various semiotic domains—as opposed to traditionally passive models of learning; learning environments where students are able to take risks and try out multiple identities; and notions of situated meaning, including the idea that the meanings of texts and other signs are situated within the embodied experiences of the learner. For Gee, basic skills are learned within context, with explicit instruction that is provided only at moments that are crucial to learners, affording extensive opportunities for their own exploration and discovery. In addition, Gee argued that learning must be regarded as fundamentally social, distributed among networks of technologies, tools, texts, and people, dispersed among others whom the learner may not even physically meet. Learning must also be regarded as fundamentally active: the learner should not passively consume but instead contribute. Gee stated, “If human learning works best in a certain way, given the sorts of biological creatures we are, then it is not going to work well in another way just because educators, policymakers, and politicians want it to” (p. 66).

Similarly, Kalantzis and Cope’s body of scholarship has centered on continuing to apply the principles of multiliteracies in order to broaden educational reform (Cope & Kalantzis, 2000; Kalantzis & Cope, 2005, 2008, & 2012). In *New Learning: Elements of a Science of Education*, Kalantzis and Cope (2008) provided three paradigms for considering education – didactic, authentic, and transformative – and used eight dimensions to explain each of the paradigms, summarized in the table below. While Kalantzis and Cope presented the didactic paradigm as “the modern past,” the authentic paradigm” as “more recent times,” and transformative education as “new learning,” they acknowledged that each of these paradigms exist today. In school
settings, however, dimensions of transformative education continue to be rare, and in many public schools education continues to be more closely aligned with the didactic approach.

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<tr>
<td>Architectonic</td>
<td>The classroom of 30 students facing one teacher.</td>
<td>Making the most of old classrooms, changing the arrangement of the room.</td>
<td>Flexible spaces, no physical boundaries; life-wide and lifelong learning.</td>
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<tr>
<td>Discursive</td>
<td>Teacher-dominated classroom talk, most learners silent for most of the time.</td>
<td>Some student-to-student dialogue.</td>
<td>Horizontal, learner-learner and learner-teacher dialogue, with the teacher in an authoritative position.</td>
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<tr>
<td>Intersubjective</td>
<td>Authoritarian systems command with teacher as mouth-piece; teachers command and learners obey.</td>
<td>Learner-centered activities.</td>
<td>Learner-surrounded interactivity; multiple teacher-learner relationships.</td>
</tr>
<tr>
<td>Socio-cultural</td>
<td>All 30 learners regarded as the same; one-size-fits-all curriculum.</td>
<td>Some individualised and self-paced learning; deficit or tokenistic views of difference.</td>
<td>Inclusive learning, educational pluralism.</td>
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<tr>
<td>Proprietary</td>
<td>Private spaces: ‘my classroom’ (teacher) and ‘my work’ (learner).</td>
<td>Opening up the classroom, some group work.</td>
<td>Collaborative learning—anywhere, anytime.</td>
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<tr>
<td>Epistemological</td>
<td>Transmission of correct facts and definitive theories from teachers to learners.</td>
<td>Generalised learning outcomes and relevant curriculum.</td>
<td>Learners as co-designers of knowledge.</td>
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<tr>
<td>Pedagogical</td>
<td>Learners as passive receptors of knowledge: facts, theories, truths, civic values.</td>
<td>Experiential learning, learning how to learn; students as inquirers.</td>
<td>The teacher as a designer of pedagogy; the learner as a co-designer of learning.</td>
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<tr>
<td>Moral</td>
<td>Discipline and conformity lead to success; and blame yourself for failure.</td>
<td>Inquiring minds and participating citizens; ‘opportunity’ to access the ‘mainstream’.</td>
<td>Kinds of persons who can navigate, discern, change, negotiate deep diversity, create and innovate.</td>
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Table 2.1 Kalantzis & Cope’s (2008) analysis of three major eras in education (pp. 44-45).

While the New London Group’s ideas have been well theorized, the educational practices that they have promoted have not been widely taken up in schools. A high proportion of the empirical work that has been conducted from the perspective of multiliteracies has considered students’ computer-mediated literacy practices in out-of-school settings. This research connects
to a broader tradition of studies considering students’ out-of-school literacy practices (Hull & Schulz, 2001). Digital literacy research in this tradition has continued to emphasize the notion of literacy as multiple, performative, flexible, and tied to identity construction. This research, which mainly involved case studies and ethnographic methods, included examinations of fan fiction communities (e.g., Black, 2009; Chandler-Olcott & Mahar, 2003), instant messaging (e.g., Lam, 2009; Lewis & Fabos, 2005), multimodal composing (e.g., Brass, 2008; Hull & Nelson, 2005; Turner, 2011), online journaling (Guzzetti & Gamboa, 2005), social networking (McLean, 2010) and gaming practices (e.g., Johnson, 2008; Marsh, 2011; Steinkuehler, 2007). The authors of this work do not suggest appropriating youth literacy practices into the classroom. However, this work does highlight some of the features that are often absent from classroom literacy practices such as an authentic audience, multimodal composing, and interest-driven activity. This work also demonstrates how adolescents, including those who are often considered as lacking strong literacy skills in schools, use language and other semiotic resources in complex ways for a wide range of purposes.

Situated studies of students’ digital literacy practices in K-12 classroom settings are not as abundant as in out-of-school research – perhaps because learning in schools is still dominated by traditional definitions of literacy (Lankshear & Knobel, 2006). Studies that do exist tend to take place in settings where the teacher (or researcher) has a special interest in using digital tools and has the freedom to explore their use with students: for instance, consider Ranker’s (2008) case study of two 12-year old boys creating a digital documentary as part of an inquiry project for their English language arts class; Curwood and Cowell’s (2011) study involving the creation of digital poetry in a sophomore English class; and Chisholm and Trent’s (2013) case study of a 10th grade student’s digital storytelling. While this research still appears to detail exceptional
cases rather than standard school literacy practices, these studies provide a glimpse of some of the many ways that digital technologies might be employed by students in the classroom for complex literacy tasks. These more complex tasks, however, whether employed with or without digital tools are largely untapped by standardized literacy tests (Mills, 2010).

While empirical work conducted from a multiliteracies perspective has focused on literacy practices rather than tools and test scores, much of this work has still placed the use of digital technologies in the foreground and other mediators within the background. In addition, the out-of-school studies have tended to focus on popular culture literacy practices that do not easily transfer into school settings, and the in-school studies have tended to take place in schools settings where the teacher and students have the access and agency to use digital tools in creative ways. Many of these studies, therefore, do not take account of other mediators that are likely to operate within classrooms and thus are likely to overestimate the transformative potential of digital technologies.

**Situated Studies of Literate Activity**

While literacy in schools is often presented as an autonomous set of technical skills, a broad body of situated studies of literate activity attests to the contextual nature of literacy and the ways that literacy is shaped by social, cultural, and historical practices. Scholarship in this tradition includes Scribner and Cole’s (1981) investigation of the literacy practices of the Vai of northwestern Liberia; Heath’s (1983) study of three communities in the Southeastern United States, and Street’s (1984) study of academic and non-academic literate practices of Iranian men and boys. Other important research has also illuminated the contextualized and complex nature of literacy in various settings, including everyday settings (e.g., Barton & Hamilton, 1998; Brandt, 2001); workplace settings (e.g., Bazerman & Paradis, 1991; Beaufort, 1999); and
disciplinary settings (e.g., Lemke, 1990; Prior, 1998). In addition to the related work of multiliteracies, this body of scholarship has influenced my own understanding of literacy – or literacies – and digital technologies. I regard literacies as hybrid semiotic meaning-making practices, intrinsically interwoven with individuals, institutions, communities, and their activities and identities – past, present, and future – and mediated through cultural tools. (Simply put, literacy is about participation). I regard digital technologies as cultural tools – albeit, often, powerful cultural tools – that shape and are shaped by human activity.

My view of literacies and digital technologies has important implications for studying students’ online literate activity in schools. In particular, I assert that it is not enough to look at the nature of online environments or the products that students create within those environments; instead it is important to provide a situated account of students’ online literate activity. From this perspective, my work also draws on situated studies of literate activity in classrooms. For this reason, I now turn to work in this area.

Studies of students’ literate activity have attempted to investigate mediators operating within classrooms. Although these studies do not usually involve digital technologies, this work is highly relevant to my research, as it foregrounds mediators of literate activity situated within schools. Unsurprisingly as language is recognized as a powerful mediator of human activity, much of this work has involved studies of classroom discourse. The term discourse, as it is used in this scholarship, “implies communication that is socially situated and that sustains social ‘positioning’: relations between participants in face-to-face interactions or between author and reader in written texts (Hicks, 1995, p. 49). From this view, discourse is situated within particular moments of classroom activity but also carries ideologies of past socio-historical activity. In classrooms then, text, talk, and other semiotic resources carry important messages about what
counts as literacies and whose literacies count. I find this work relevant to my own research because particular discourses are embedded within or surround students’ online literate activity in schools. First, I introduce classroom discourse research. Then I provide examples of how this work has been extended to look more specifically at classroom literate activity from CHAT or related perspectives.

Many studies of school literate activity focus on classroom verbal interactions between teachers and students. The most prevalent discourse pattern found within traditional classroom lessons involves the teacher initiating, the student responding, and the teacher evaluating or providing feedback. This pattern is often referred to as IRE (Cazden, 1988; Mehan, 1979), IRF (Sinclair & Coulthard, 1974; Wells, 1993), or triadic dialogue (Lemke, 1985). The IRE pattern is often associated with didactic education where particular hierarchical roles or identities are reinforced. That is, while the teacher initiates and evaluates, the student listens and responds. The teacher determines who gets to talk, what gets talked about, and what counts as a correct response; the students, on the other hand, learn that knowledge is predetermined with their role producing the desired answer that the teacher seeks. Wells (1993) complicated this view by highlighting that while the structure of the IRF pattern may remain constant across various instructional situations, the function of this pattern may change dramatically depending on the activity. Well’s point may also be applied to classroom discourse more generally. In consequence, in examining classroom discourse the activity in which it is situated may be vital.

In recognition of the need to employ a much wider unit of analysis than discourse alone, many researchers of literacy in schools have drawn explicitly on CHAT or used theories or methods compatible with CHAT to examine classroom literacy situated within activity (Dyson, 1997 & 2003; Lee & Smagorinsky, 2000, Moll, 2014). Smagorinsky and O’Donnell-Allen
(1998), for example, used a CHAT framework to provide an account of high-school students studying Shakespeare’s Hamlet. They described the processes of mediated activity that students engaged in as they read the play and composed multimedia responses. The assignment, which involved the collaborative production of an artifact including both text and drawings, reinforced the teacher’s (O’Donnell-Allen) view of literacy as social and multimodal. While aspects of the students’ environment prompted practices based on broad definitions of literacy, the researchers also identified ways in which the students saw their environment as constraining their activity. In particular, the teacher set parameters of the assignment and the associated teacher’s set time frame were seen to structure the students’ activity and the roles that they took on to accomplish the task. Smagorinsky and O’Donnell also drew attention to intertextuality among the students’ creations, the source text, and other mediators such as film excerpts, classroom discussions and performances. In conclusion, the researchers suggested that the students’ activity might be seen as “a continually mediated process in which a social context provides constraints that limit, channel, and enable readers’ ways of thinking about, talking about, and representing the meaning that they impute to written signs” (p. 221).

Dyson’s work (1993, 1997, 2003, 2013) situated in culturally diverse classrooms, also draws on social-cultural theory, in particular, notions of dialogism and cultural mediation (Bakhtin, 1981 & 1986; Vygotsky, 1978 & 1986). Her work that investigates the literate lives of young writers (i.e. pre-K-3) illustrates how children find space for their “unofficial” literacies, even in test-mandated schools. The composing practices of the children, who she portrays so vividly, use popular culture and social relationships to mediate their writing practices in classrooms where the official curriculum is centered on traditional conceptions of “the basics.” Dyson (2013) asserts: “Childhood relations and practices potentially make writing relevant—and
easier if not easy; such relevance is necessary if children are to learn, not just the subject of
writing, but a cultural tool for participation” (p. xii). Similarly, the concept of “funds of
knowledge” (i.e. “historically accumulated and culturally developed bodies of knowledge and
skills”) draws on social-cultural/cultural-historical theory (Moll, Amanti, Neff, & Gonzalez,
1992, p. 133). Like Dyson’s work, “funds of knowledge” scholarship (e.g., González, Moll, &
Amanti, 2005) focuses on the rich competencies of individuals and groups who are often
regarded from a deficit perspective, and this work also argues for spaces within schools for
students to draw on these competencies while they also build new competencies valued in the
academy.

In addition, Gutiérrez’s work has been particularly powerful in demonstrating how
different learning environments provide students with differential access to particular kinds of
literacies and literate identities. Gutiérrez (1993), for example, used activity theory and
conversational analysis in her comparative ethnography that investigated the relationships among
language, context, and literacy learning in nine classrooms using writing process pedagogy.
Using data from three classrooms, she demonstrated the different ways that writing process
pedagogy was enacted and the differential access to literacy learning available to students in each
of the classrooms. She showed how the same instructional activity, journal sharing, was defined
within the practices of the three classrooms – “journal sharing as recitation,” “journal sharing as
responsive activity,” and “journal sharing as a responsive/collaborative activity.” In the
classroom where journal sharing was a responsive/collaborative activity, students took on roles
and relationships that assisted them to communicate in extended ways both orally and in writing
that were not available to the students within the other classrooms. This study, which involved
teachers who espoused similar literacy pedagogies, provides a good example of the importance of studying situated classroom activity.

In a review of literacy learning for students from non-dominant communities, Gutierrez, Morales, and Martinez (2009) highlight CHAT and explain how work from this perspective has been used “to organize new forms of educational activity in which diversity is a resource and heterogeneity is a design principle” (p. 216). These scholars use the term “re-mediation literacy.” This notion of “re-mediation” rather than “remediation” students’ literacy practices draws on work from Cole and Griffin (1983) in a discussion of how to improve students’ reading by shifting the way that mediating devices operate within the learning environment. Taking up Cole and Griffin’s central idea, Luke and Elkin (2000) argued that literacy instruction should not involve the use of methods “to fix deficits” but should instead be about “staging the conditions for students to rethink and reenact their social and semiotic relations” (p. 397). Adding to this conversation, Alvermann (2005) wrote, “re/mediation is about changing the ecology of classroom teaching and learning by taking into account a broadened view of text and the multiliteracies made possible by today’s new information communication technologies” (pp. 10-11). From this perspective, new digital technologies may be powerful cultural tools that support re-mediated literacy practices – but only as part of wider reforms in the way that we organize and assess literacy and learning in educational institutions.

Accountability Policies and Students’ Literacy Learning

I began this review of literature by discussing students’ computer use and literacy test scores. I now move to a related issue: accountability policies and students’ literacy learning. Within the frame of accountability, test scores – for some schools at least – are powerful mediators of students’ literacy learning. Given the policy framework of the school in my study
and my interest in mediators of literate activity, in this section I review scholarship that examines the impact of accountability policies on literacy instruction. These studies indicate how policies often considered as operating at the macro level may influence the everyday experiences of teachers and their students. Significantly, these studies suggest that accountability policies are more likely to restrict the kinds of literate activity available to students from non-dominant communities.

The differential impact of accountability policies on writing instruction in high- and low-income schools was investigated by McCarthey (2008). While most of the 18 teachers in her study believed that No Child Left Behind (NCLB) had forced teachers to focus more on testing, there were significant differences between findings for the high- and low-income schools. Teachers in the high-income schools tended to use a writer’s workshop or genre-based models of writing instruction. These teachers felt that they were in a position to implement approaches to writing instruction that they believed were most valuable for their students. In contrast, teachers in the low-income schools were more likely to use pre-packaged writing programs and to align their writing instruction with standardized state tests. McCarthey’s study, however, did include the case of one teacher from a low-income school who refused to alter her instruction to align with tests. Although this teacher represents an important example of the possibility of resisting dominant accountability discourses, she was also a highly experienced teacher who was close to retirement, which might account for her possessing a higher degree of agency than her colleagues.

Achinstein and Ogawa’s (2006) study provided an example of what might happen when teachers fail to comply with curriculum mandates. The researchers investigated the experiences of two new English language arts teachers who resisted the implementation of a mandated
literacy program that their districts had put in place in order to comply with accountability measures. Both of these teachers worked in schools with diverse student populations and a high number of students who received free or reduced price lunch. The two teachers came under increasing pressure to implement the mandated reading program with fidelity. These teachers, however, resisted and, instead of exclusively using the mandated programs, which they regarded as offering a narrow curriculum, used a variety of instructional methods in their classrooms, providing a balanced approach to literacy instruction for their students. Achinstein and Ogawa attributed their resistance to their professional principles, including their belief in the power of teacher autonomy and creativity, their commitment to community building and serving the needs of diverse learners, and their high expectations for all students. After their second year of teaching, however, both teachers left their schools: one because she was asked to leave without explanation, and the other because he resigned in order to move to a school with a less prescriptive teaching environment, a school that was in a more affluent community.

Dooley and Assaf’s (2009) study also demonstrated the importance of context when considering the impact of accountability policies. They investigated the teaching philosophies and practices of two English language arts teachers—one working in a suburban school serving a predominately White middle-class population and one working in an urban school serving a predominately Mexican and Mexican-American low-income population. They found that despite the fact that the two teachers had similar teaching philosophies, which centered on engaging students with text-rich and social learning experiences, their teaching practices differed significantly. The students in the suburban teacher’s classroom engaged in activities such as student-led and open-ended literature discussions, whereas instruction for the students in the urban teacher’s classroom focused on teacher-directed lessons involving explicit skills and
strategy instruction. In their discussion, Dooley and Assaf drew attention to the inequitable instructional experiences of students in these two teachers’ classrooms, and discussed the role that context played in mediating the teachers’ responses to accountability policies and the resulting literacy learning opportunities of their students.

Similarly, Enright and Gilliland’s (2011) study, involving 12 ninth-grade classes situated in a linguistically diverse high school, demonstrated the differential impact of standards and accountability on different groups of students. In higher-status classes that included few multilingual learners, such as Biology (with mostly honors students) and honors English, students were given more opportunities to be socialized into the norms of academic writing discourses. Conversely, in lower-status classes with high numbers of multilingual students, such as Earth Science and general-track English, students were more likely to engage in simple writing tasks based on restrictive definitions of academic writing. Enright and Gilliland’s findings also indicated that students were frequently assigned writing and assumed to know specific academic discourses without instruction in these areas. In summary, multilingual students were far more likely to be influenced by accountability policies and socialized into restrictive norms for writing than their monolingual English-speaking peers. Other research also confirms that accountability policies are more likely to negatively influence literacy instruction for linguistically diverse students (Pandya, 2011; Pease-Alvarez, Samway, & Cifka-Herrera, 2010; Solórzano, 2008).

The findings about accountability and literacy instruction are also consistent with broader research on the influence of accountability on education. For example, Darling-Hammond (2007) demonstrated that NCLB policies had led many schools to focus on test scores, to narrow curriculum, and to concentrate on low-level skills, frequently harming the very students that
these policies were most intended to help. Sunderman (2006) documented how schools serving minority populations were more likely to fail to meet AYP because of the ways in which subgroup data was calculated. McCaslin (2006) connected differing patterns of student motivation in high-poverty and affluent schools to NCLB legislation. McCarty (2009) documented the impact of accountability policies on Native-American students. Fuller, Wright, Gesiski, and Kang (2007) reported that after NCLB’s initiation in 2001, schools from the 12 states in their study lost the progress they had made in the 1990s toward narrowing the achievement gap by improving the test scores of disadvantaged students.

Accountability policies have been shown to contribute to inequitable opportunities for students; however, their influence on literacy instruction cannot be assumed. In certain settings, accountability policies may be powerful mediators of students’ literate activity, while in other settings they may not be particularly influential. As Achinstein and Ogawa’s (2006) and McCarthey’s (2008) studies showed, some teachers resist curriculum mandates that narrow literacy experiences for students. Other teachers may use scripted curricular materials in creative or critical ways. Yoon (2013) provided a detailed account of how one teacher, working with an economically and ethnically diverse population of children, translated the officially scripted curriculum to create space for a wide range of teaching practices and student learning experiences in her classroom. Yoon’s work showed that “curriculum is an enacted practice orchestrated by individuals” (p. 148). This is true of classroom activity in general.

This study of students’ online literate activity adds to the discussion of the impact of accountability policies on students’ literacy instruction in several ways. First, this study considers the differential influence of accountability policies on two classes taught by the same teacher. Second, this study focuses on online literate activity, which is important as students are
increasingly using online environments during literacy instructional time – and the assumption is often that online access will promote equitable opportunities. Third, the study not only considers the impact of accountability policies, but also shows how mediators operate together to influence students’ access to different kinds of literacies and literate identities.

Chapter Summary and Conclusion

In this chapter I reviewed literature around four central topics. First, I considered work that examined the relationship between students’ computer use and literacy test scores. My research, in many ways, is a reaction to this work. If computer technologies in schools are going to contribute to broader and more equitable definitions of literacy, then I assert that the emphasis needs to be drawn away both from the computer technologies and literacy test scores. A focus on computer technologies treats factors that may well be central to students’ online literacy experiences in schools – e.g., teachers, curriculum materials, school settings, student populations – as variables to be controlled in order to ensure fidelity of experimental implementation. A continued focus on literacy test scores is likely to lead those developing educational technologies to transfer narrow ideologies of literacy into new online environments and to inhibit more creative uses of computer technologies in schools, such as collaborative learning and multimodal composing.

Next, I provided an overview of scholarship on students’ computer-mediated literacy practices from the perspective of multiliteracies. This work advocates for the need to expand definitions of literacy in schools to include multimodal and linguistically and culturally diverse forms of meaning making. This work – and other scholarship that broadly defines literacies – has profoundly influenced my thinking, research, and practice. I too believe that new communication technologies have the potential to promote broader and more equitable definitions of literacies in
schools. Much of the empirical work that has been conducted from the perspective of multiliteracies, however, has involved out-of-school practices or classrooms where the teachers and students had a great deal of creative freedom. This work may overestimate the transformative potential of new technologies in schools and underestimate the power of other mediators that operate within educational institutions.

In recognition of the importance of context – and the mediators that constitute particular contexts – I then turned to situated studies of literate activity. In the field of education this work has provided important insights about how mediators, such as texts, talk, and teachers, influence students’ literate activity in schools. I highlighted how scholars have used CHAT or related socio-cultural perspectives for research in classrooms. Most of this research, however, has not involved digital technologies, so my work contributes in this way. In reviewing this literature, I find the notion of re-mediating (i.e. shifting the ways various mediators operate in students’ learning environments) rather than remediating (i.e. fixing students’ learning “deficits”), particularly valuable as a way of considering how new digital technologies might support broader educational reform.

Finally, I reviewed studies that investigated the relationship between accountability policies and students’ literacy learning. These studies are relevant to my work because of the policy framework of the school in my study. While policies are often considered as part of the broader context, this work demonstrates how policies may influence the everyday practices of teachers and students within schools. Similar to the situated studies of literate activity in classrooms, these accountability studies do not address students’ use of online environments for literacy learning in schools. Within the context of the proliferation of online learning
environments within K-12 schools, my research considers possible relationships between accountability and students’ online literacy learning.

By using CHAT as a theoretical and methodological framework, in this study I investigated students’ online activity from a holistic perspective. Consequently, I was able to draw together many of the issues discussed above (i.e. accountability, situated classroom activity, digital technologies, and literacy learning). I was also able to illuminate how the configuration of various mediators operating within the two classes influenced students’ online literate activity and the literate identities available to students. In the next chapter I articulate my research design and methodology.
CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

In this chapter I describe the present study’s research design and methodology. I begin by providing a rationale, and then review the study’s purpose and overarching research questions. Following this, I introduce my participants and setting, as well as the selection process. Next, I articulate the data collection, data analysis, and data synthesis methods. Throughout, I integrate reflections on my role as a researcher. I conclude with a chapter summary.

Rationale for Design and Methodology

In the previous two chapters, I took a particular stance on human activity in general and literate activity in particular. In taking this stance I signaled my epistemological alignment with scholarship that recognizes the complexity of human activity and the multiple and constructed nature of knowledge. Methodologically I also align with work that takes into account the complexity of literacies in a specific setting over time (Dyson & Genishi, 2005). For the present study, I chose a case study approach for its potential for intensive description and analysis of a particular phenomenon bounded by time and place (Merriam, 1998; Stake, 1995 & 2006; Yin, 2009). Case study design fits well with my research purpose: to investigate the ways in which offline mediators influenced the online literate activity occurring within the bounds of two adolescent language arts classes. The study employs ethnography as a methodology, because the extended engagement and multiple data collection and analytical methods of ethnography provided greater opportunities to understand the phenomenon of interest in a holistic way (Heath & Street, 2008; Lillis, 2008; Shuman, 1999). The study also used activity system analysis (Engeström, 1987), which is compatible with these methods, because it offers a powerful
heuristic to examine data from multiple standpoints while providing a basis for recognizing the inextricably interconnected nature of human activity.

**Purpose**

The purpose of this study was to examine students’ online literate activity within two language arts classes taught by the same teacher—one with a mandated curriculum and one without a mandated curriculum—in a junior high school that had been placed on “academic watch status,” because of a persistent failure to meet Adequate Yearly Progress (AYP). The study was guided by the following overarching research questions:

What was the nature of students’ online literate activity in each of the two language arts classes? In particular, what mediators were evident in each of the classes and how did these mediators influence the nature of students’ online literate activity and the literate identities available to students?

Students’ online literate activity was employed as a holistic unit of analysis that was operationalized by the construct of an activity system. Thus, when I discuss the nature of students’ online activity, I am calling attention to the various activity system components that were evident within and beyond this activity—including the subjects, tools, rules, community members, and divisions of labor—as well as the objects and outcomes of students’ online literate activity. In other words, I am concerned with the offline mediators that influenced students’ online activity, and, in particular, I seek to illuminate how these mediators are productive and/or disruptive for students’ online literate activity.
Participants and Setting

School and Focal Teacher

This study was conducted at Reed Junior High School within two of Ellen Anderson’s eighth grade language arts classes (all names are pseudonyms). Reed Junior High is located in a small urban setting in the Midwestern United States, 20 miles from a large state university. Approximately 500 sixth through eighth grade students attend the school. In the year of this study (2012-2013), the racial/ethnic diversity of the student population was reported on the State Report Card as follows: Black/African American, 38%; White, 36%; Hispanic/Latino, 19%; Asian, 1%; and Two or More Races, 6%. The racial/ethnic/diversity of the district’s teaching population was reported as White, 91.6%; Black/African American, 1.9%; Hispanic/Latino, 0.9%, and Asian, 5.6%. The State Report Card indicates that in the 2012-2013 school year 100% of students were from low-income homes and 2% of students were homeless; 16% of students had Individual Education Plans (IEP); and 11% of students were identified as English learners. In addition, the State Report Card showed that 22% of students, excluding graduates, transferred in or out of the school over the course of the school year. This transfer rate, which is almost double the state average, has remained consistently high for the last 10 years. In the 2011-2012 school year, Reed Junior High spent $5,337 per pupil on instruction and $10,577 per pupil on operating expenses. These figures are, respectively, $1637 and $1265 below the state average.

Over the last 10 years, student demographics have changed dramatically while teacher demographics have changed little. For instance, the 2001 State Report Card shows 63% of students as White, 40.6% of students from low-income homes, and only 0.6% of students as Limited-English-Proficiency. During this same period, the racial/ethnic diversity of the teaching population has changed very little. The biggest difference is that in 2001 the school district did
not have any Asian or Hispanic teachers; instead, 98.2% of teachers were White. Similar to more recent data, only 1.8% of teachers were Black in 2001. Although teachers’ racial/ethnic diversity has changed very little, teachers’ level of experience has changed considerably. In 2001 the average length of teaching experience was 18.9 years. By 2012 the average length of teaching experience had dropped to 10.1 years. The number of teachers with Master’s degrees or above had also dropped from 25.7% to 15.8%.

Meanwhile, school spending has increased, but with an emphasis on operating expenses. Between 2000 and 2012 the instructional expenditure increased by $1482 per student, while the operating expenditure increased by $4,529 per student. In 2000 the gap between the district and state expenditure was narrower for instructional spending ($570) but wider for operational spending ($1435). Although in both the district and the state operational spending per pupil has always been substantially higher than instructional spending per pupil, the portion spent on operational costs has increased.

In the year of this study (2012-2013), the school failed to meet adequate yearly progress (AYP) in reading. The school also failed to meet AYP in nine of the 10 years prior, and by 2012-2013 year was on Academic Watch Status Year 6. A closer examination of the school’s AYP data indicates that the majority of students did meet the goal for AYP. The school’s failure was based on sub-group data, frequently as a result of data from one of three subgroups: Black or Hispanic; students with disabilities; and/or economically disadvantaged students. The school also failed to meet AYP on two different years because too few students within a subgroup were tested. The majority of students, including White students in every year, met the goals for AYP. However, as a direct result of reading test scores, at the beginning of the 2011-2012 school year, the school administration implemented scripted reading programs for students identified as
“working below grade level,” according to Pearson’s Aimsweb standardized reading assessments (http://www.aimsweb.com).

Ellen Anderson, the focal teacher, taught three eighth-grade language arts classes. Two of her classes—one with a mandated curriculum and one without a mandated curriculum—were investigated within this study. Ms. Anderson is a White female who, at the time of this study, was in her third year of teaching. Her previous two years had also been in this position. I first spent time in Ms. Anderson’s classroom early in her first year of teaching. At this time, I was surprised to discover that she was a brand new teacher. Her confident and comfortable interactions with her students suggested otherwise. As I came to know Ms. Anderson, I discovered that she had completed a secondary teacher education program majoring in English. This did not surprise me, as I had noticed that she was particularly animated when discussing literature with her classes. On several occasions she confessed to me that she did not feel fully prepared to teach reading, which had become a major part of her job. Ms. Anderson, however, talked of her commitment to her students and expressed a strong desire to improve her classroom practice. Ms. Anderson reported that she enjoyed working at Reed Junior High and that she found her colleagues very friendly and helpful. At the end of her second year of teaching, while I was planning this research project, she expressed some concern about the possibility of being riffed, losing her job (as she was not tenured) because of a reduction in the workforce. Towards the end of this study, however, she told me that as she had received good teacher evaluations and that several teachers were retiring; consequently, she felt that her position at the school was more secure. She reported that she planned to stay at Reed Junior High and that she would soon begin a Master of Education program.
At the outset of this study I had known Ms. Anderson for two years. I had met her—and several other teachers at this and other schools in the area—because she had agreed to trial Scholar, an online writing environment developed through a local university research team’s collaboration with a small business founded by a professor from the College of Education, and with approximately $4 million of grant support awarded by the U.S. Department of Education’s Institute of Education Sciences. As a graduate research assistant working on the Scholar research and development project, I supported teachers and students who were beginning to use Scholar and conducted research as part of the Scholar university team, including some research in Ms. Anderson’s classroom. This research primarily involved examining students’ online writing artifacts, but also included observations, interviews, and the collection of teachers’ initiating texts (Prior, 1994). Among other features (which will be discussed in Chapter 5), the Scholar online environment facilitates peer feedback. My initial research focus was to consider the nature of peer feedback and its impact on students’ revisions; however, after conducting several collaborative studies about peer feedback (Kline, Letofsky, & Woodard, 2013; McCarthey, Magnifico, Woodard, & Kline, 2014), my research interests broadened, as I began to realize that students’ online writing artifacts and online literate activity in general were influenced by a broad range of mediators. In particular, as I spent time in different classrooms in different schools, I began to notice how students’ online activity within Scholar varied dramatically from school to school and from class to class. In some schools it was easy for teachers to decide when and how they wanted to use Scholar, because the schools had adequate computer resources and the teachers were given a high degree of freedom to make curricular and instructional decisions. These schools, however, were those that served more affluent and less diverse populations; they were not particularly impacted by the accountability policy context. I wanted my research to take
place in a school influenced by the accountability policy context, in which conditions were less than ideal for implementing the use of a new online environment designed to transform education.

Reed Junior High School was selected for this study because, like many schools that serve diverse and low-income populations, the school’s literacy education decisions were clearly influenced by broader education policy contexts (McCarthey, 2008). Although four teachers in the school began using Scholar at the same time as Ms. Anderson (Fall 2010), after the first year she was the only teacher within the school willing to continue using Scholar. The other teachers did not feel that it would be compatible with the mandated reading curricula that were introduced in Fall 2011. In 2011-2012 Ms. Anderson only used Scholar with her class without a mandated curriculum; however, she told me that in the following year she planned to use it with all of her classes. I thought that this would serve as the basis for making an interesting comparison, and I was not wrong. Considering the online literate activity of two of Ms. Anderson’s classes—one with a mandated curriculum and one without a mandated curriculum—did make for an interesting comparison. The students in the class with the mandated curriculum, however, never used Scholar. My study, therefore, examined two classes using two very different online environments.

The Physical Setting

The field site in this study comprises both physical and virtual spaces. The physical space was primarily composed of two classrooms: Ellen Anderson’s room and the eighth-grade computer lab. The virtual settings were composed of the Voyager Sopris Learning SOLO online environment (used by the class with the mandated curriculum) and the Common Ground Publishing Scholar online environment (used by the class without the mandated curriculum).
SOLO and Scholar will be described in the chapters about each of these classes: Chapter 4 (“The Class with the Mandated Curriculum”) and Chapter 5 (“The Class without the Mandated Curriculum”).

Ellen Anderson’s classroom. In Ms. Anderson’s classroom individual desks were provided for each student. During the first quarter, before her classes were reorganized, Ms. Anderson frequently had more students than desks. The desks were arranged in five rows facing toward a SMART Board, which was centrally located; Ms. Anderson’s desk was situated off to the side. Above Ms. Anderson’s desk was a bulletin board displaying messages from eighth-grade alumni, providing advice about how to survive Ms. Anderson’s class. The windows, spanning almost the length of one side of the classroom, were tinted. Ms. Anderson explained that these windows were recent replacements that had been installed to improve the appearance of the school. The old windows, which were frequently covered, had looked unattractive from the outside. The new windows were to remain uncovered, but, despite the tint, they often created an unhelpful glare on the SMART Board. At the back of the room were a bookshelf, a magazine rack, two Mac computers (older models with bulky monitors), and a printer that frequently failed.
to print. Also at the back of the room was a poster showing a list of classroom expectations (see Figure 3.2).

![Classroom Expectations Poster](image)

**Figure 3.2. Classroom expectations poster.**

Ms. Anderson did not create the poster. I believe the same poster was displayed in every classroom, including the computer lab. Ms. Anderson, however, had added letters spelling out the word “refocus;” below it, she had added a handwritten sign, which read, “Keep Calm and Carry On.” The long wall opposite the windows was filled with three large bulletin boards. The two boards on each end displayed student work. Sandwiched between them was a board that remained constant throughout the year, displaying four posters. These posters showed the grading scale, responsibilities, expectations, and the version of the schedule in use for the day. There were five different versions of the schedule: regular, long advisory, late start, early dismissal, and half day. Presumably, these changing schedules (specific to the nearest minute) were displayed throughout the school, including in the eighth-grade computer lab, because the changing schedules were somewhat confusing for staff and students. A bell at the end of one
class and the beginning of the next gave students three or four minutes to transition to their next class.

![Late Start Schedule]

Figure 3.3. One of the schedules displayed in Ms. Anderson’s classroom and the computer lab.

The grading-scale poster was also displayed around the school, including the computer lab. Next to this poster in Ms. Anderson’s room, she had drawn an arrow pointing to the words, “In Danger,” and under the arrow she had written, “Not your goal!” Students’ grades were tied to the school’s retention policy. Students needed a minimum of 8 out of a possible 11 points for promotion to the next grade or, in the case of the eighth-grade students, to high school. Two of these points were from language arts. In order to gain these points, students needed to maintain an average above 70%.
The responsibilities poster was also displayed throughout the school, including the computer lab. This poster detailed responsibilities at school, student, and family levels. For instance, one tenet read as follows across the three levels:

School: Provide high quality instruction and curriculum, as well as the necessary supports that it takes for each child to be successful.

Student: Take advantage of the educational opportunities offered to get the most out of my school experience.

Family: Show that I value the importance of education and desire success for my student.

Another tenet read:

School: Instruct, model, and encourage the importance of reading and life-long learning.

Student: Make time each day for reading and be a life-long learner.

Family: Model and encourage the importance of reading and life-long learning.

Similarly, the expectations poster was also displayed around the school. This poster detailed expectations for student behavior and was centered on three “R” words: “Be Ready,” “Be Respectful,” and “Be Responsible.” The poster outlined expectations across various settings within the school (i.e. all settings, classrooms, hallway, cafeteria/recess, restroom, locker.
room/gym, and bus/bus area). For instance, the following were shown under the “all settings” column:

- **Be Ready** – Be prepared for success. Bring appropriate materials.
- **Be Respectful** – Be courteous. Keep hands and feet to yourself. Use appropriate language. Use good manners. Use inside voice. Meet expectations. Comply with staff requests.
- **Be Responsible** – Follow directions and procedures. Report unsafe situations and behaviors. Be an active listener. Follow school dress code. Resolve conflicts with maturity.

Underneath this poster Ms. Anderson had drawn an arrow and written the words: “Just A Friendly Reminder.”

**The eighth-grade computer lab.** In the computer lab were 30 Mac computers with wide, flat screens, situated on five neat rows of tables in a windowless room. The computer screens all faced in the same direction, toward the back wall, spanned by shelves. The chairs all faced toward the front, where a screen was centrally positioned. A projector, which was remotely connected to one of the computers, hung from the ceiling.

Figure 3.5. The eighth-grade computer lab.
In addition to the posters that were identical in content to the ones in Ms. Anderson’s classroom, there were also a number of other posters in the computer lab. For instance, the three shown below all provide students with specific test strategies.

Figure 3.6. Test-strategy posters displayed in the computer lab.
Other posters provided definitions, such as the two shown below that defined literary terms (i.e. plot, character, protagonist, antagonist, setting, conflict, climax, rising action, falling action, and resolution) and literary devices (i.e. metaphor, simile, personification, alliteration, and onomatopoeia).

![Literary Terms poster]

**Figure 3.7.** Literary definitions posters displayed in the computer lab.

Both of Ms. Anderson’s language arts classes (with and without mandated curricula) spent the majority of their time in Ms. Anderson’s classroom, with an equal amount of time spent in the computer laboratory.

**Class Cases**

Ms. Anderson taught three eighth-grade language arts classes. Based on my comparison research design, two of these classes were selected for study: one class with a mandated curriculum and one class without a mandated curriculum.
The class with a mandated curriculum. This class was composed of students who, according to Aims Web testing (http://www.aimsweb.com), had been designated as reading below grade-level.

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aisha</td>
<td>Female</td>
<td>Multiracial</td>
</tr>
<tr>
<td>Anna</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Ayana</td>
<td>Female</td>
<td>Black</td>
</tr>
<tr>
<td>Dinari</td>
<td>Male</td>
<td>Black</td>
</tr>
<tr>
<td>Imani</td>
<td>Female</td>
<td>Black</td>
</tr>
<tr>
<td>Kimberley</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Laqueta</td>
<td>Female</td>
<td>Black</td>
</tr>
<tr>
<td>Maisha</td>
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<td>Black</td>
</tr>
<tr>
<td>Mark</td>
<td>Male</td>
<td>White</td>
</tr>
<tr>
<td>Mateo</td>
<td>Male</td>
<td>Latino</td>
</tr>
<tr>
<td>Nataniel</td>
<td>Male</td>
<td>Latino</td>
</tr>
<tr>
<td>Rafael</td>
<td>Male</td>
<td>Latino</td>
</tr>
<tr>
<td>Roberto</td>
<td>Male</td>
<td>Latino</td>
</tr>
<tr>
<td>*Shaquana</td>
<td>Female</td>
<td>Multiracial</td>
</tr>
<tr>
<td>*Tanisha</td>
<td>Female</td>
<td>Black</td>
</tr>
<tr>
<td>Tatiana</td>
<td>Female</td>
<td>Black</td>
</tr>
<tr>
<td>Tavon</td>
<td>Male</td>
<td>Black</td>
</tr>
</tbody>
</table>

Table 3.1. Students with permissions for data collection in the class with the mandated curriculum. *These students began in this class but later moved to the class without a mandated curriculum.

Ms. Anderson was provided with a curriculum for these students, which was mandated by her district. The curriculum, Voyager Sopris Learning’s *Passport Reading Journeys*, was an intervention program designed for struggling readers. *Journeys* included a teacher’s manual, a student anthology, and student workbooks. Additionally, Voyager Sopris Learning’s online program, *SOLO* (Strategic Online Learning Opportunities), was provided to support the offline curriculum. Ms. Anderson taught this class for a double period (usually 80 minutes) every morning, immediately after a short advisory period. The student population of this class fluctuated, as some students moved between classes and other students moved into or out of the district. The number of students within the class ranged between 24 and 30. Table 3.1 above
shows the students in this class who provided permission for data collection (all names are pseudonyms). The students highlighted were focal students for data collection.

**The class without a mandated curriculum.** This class was composed of students who, according to Aims web testing, had been designated as reading at or above grade-level.

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Azmera</td>
<td>Female</td>
<td>Black</td>
</tr>
<tr>
<td>Ben</td>
<td>Male</td>
<td>White</td>
</tr>
<tr>
<td>Brian</td>
<td>Male</td>
<td>White</td>
</tr>
<tr>
<td>Charles</td>
<td>Male</td>
<td>White</td>
</tr>
<tr>
<td>Dayton</td>
<td>Male</td>
<td>Black</td>
</tr>
<tr>
<td>Darren</td>
<td>Male</td>
<td>White</td>
</tr>
<tr>
<td>Helen</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>James</td>
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<td>White</td>
</tr>
<tr>
<td>Jason</td>
<td>Male</td>
<td>White</td>
</tr>
<tr>
<td>Jazara</td>
<td>Male</td>
<td>Black</td>
</tr>
<tr>
<td>Lúcia</td>
<td>Female</td>
<td>Latina</td>
</tr>
<tr>
<td>Miguel</td>
<td>Male</td>
<td>Latino</td>
</tr>
<tr>
<td>Nancy</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Patricia</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Rosaline</td>
<td>Female</td>
<td>Latina</td>
</tr>
<tr>
<td>Susan</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Zion</td>
<td>Male</td>
<td>Black</td>
</tr>
</tbody>
</table>

Table 3.2. Students with permissions for data collection in the class without the mandated curriculum.

Ms. Anderson was not provided with a mandated curriculum for these students; instead, she was allowed to choose the materials that she used with these students and the topics that she covered. Similar to the class with the mandated curriculum, the population of this class fluctuated. The numbers within this class ranged from 26 students to over 30. Table 3.2 below shows the students in this class who provided permission for data collection (all names are pseudonyms). The students highlighted were focal students for data collection. This class had a split schedule. They spent one class period with Ms. Anderson in the morning. Then, they had a different class
(often physical education), followed by lunch, before returning to a second period with Ms. Anderson in the afternoon.

**Student Cases**

I selected six students (three from each class) as focal participants. Although I also collected data from other students, focusing my observations and data collection on these six students enabled me to make more detailed observations and to gather richer data sources. Because I wanted to develop information-rich cases, I only selected focal students who provided a full range of permissions for data collection. These were students with parental consent who had also agreed to all of the following conditions, as shown on the assent form below.

![Image of student assent form]

Figure 3.8. Statements on the student assent form.

The students selected all indicated in their initial survey and interview that they believed that writing was important. In addition, they all expressed a desire to attend college in the future. Although six focal students were studied in detail, the write-up of this study focuses on one student from each class, which enabled me to provide a more detailed and coherent account. I could have used any of the focal students for this purpose (except for Tanisha who moved between the classes), but I decided to use Dinari from the class with the mandated curriculum and Lúcia from the class without the mandated curriculum primarily because I had the most data...
from these students. This was true for Lúcia because—once she realized that I was interested in her work—she would show me work that she had been doing on days when I was not present in the classroom. Occasionally, this was also true for the other students, including Dinari. Yet, I also had more of Dinari’s artifacts, because he left his workbooks in the classroom at the end of the school year.

**Dinari.** Dinari is an African-American male who was assigned to Ms. Anderson’s eighth-grade reading class with a mandated curriculum. He remained in this class throughout the course of this study. In his initial writing survey, Dinari answered that he spoke English at home and that he always wrote in English. He indicated that he liked to write and that writing was easy for him. Dinari disagreed with the statement, “I only write when I have to write for school.” He also disagreed with a number of other statements designed to elucidate if he had negative attitudes towards writing, including the following: “Writing is one of my least favorite activities;” “If possible, I usually avoid writing;” “I worry about completing my writing work;” and “I find writing hard.” He described feeling confident about his writing ability, whether the teacher had provided the topic or not and whether he would be graded or not. His survey responses also show that he enjoyed reading his writing aloud to his classmates, and that he thought his classmates and his family would say that he was a good writer. He was undecided about whether he was a good writer and whether his teachers would say he was a good writer. When asked, “Do you think writing is important?” Dinari wrote, “yeah because it takes a strong part in life if it wasnt important the decoration of independents wouldn’t have written or important.” If he were allowed to choose the topic, Dinari responded he would write about “life problems the steps of life what you go through in school stories you know life.” The writing that he considered his best work was titled, “hurter being hurt;” for his worst work he wrote, “none.” In the survey, I asked
Dinari, “If you could choose who read your writing, who would you choose?” He responded, “everyone in the united states.” I also asked him to write about how he felt when he was given a writing assignment, and he wrote, “focus don’t let any thing come across you mind pure silence.” I also asked him to write about how he felt when he was given a writing test, and he wrote, “I say in my mind get ready over and over again.” Finally, I asked Dinari to write one word that best described how he felt about writing, and he wrote the word, “life.”

In his survey follow-up interview, Dinari confirmed and expanded on information provided in his survey. “Writing,” he said, “lets me express my feelings.” He talked about how he enjoyed writing magical stories, and added:

I’ll write a story, non-fiction and that means fake right? I’ll write a story in non-fiction, but it’s really what happens in my life. And you would think it’s fake, but it’s really not. And I’ll put it [in] different words, and I like to do that a lot.

Dinari described a story that he had written involving a werewolf and a superhero. He explained that the story was from the X-men movie, but that he “mixed everything up and put better stuff in it.” His story was about Wolverine’s life as he grew from a child to a teenager, before they had tested him, as they did in the movie. Dinari’s story included another character from the movie, Striker, but he changed him into a natural wolf. “From how they talk about Indians were wolves and stuff like that,” he explained. He also talked about another story he had written:

I wrote a story…it was [about] a big guy in our grade. He was mean. He picked a lot of fights with people. And he was pretty big and the other guy was small. But at the end of [the] last year they ended up fighting, and the little guy won.

Dinari explained that he got his writing ideas from movies, life, and “everything pretty much.” He attributed his “good creative mind” to playing video games and, when he was little,
watching a lot of cartoons. As Dinari talked about writing and video games, he told me how he could see graphics “playing over and over again” in his head, and that this not only helped him with his writing but also with his drawing. He told me that there is one thing that he had been stuck on drawing for two years: “spray-painting, and it spray paints life.” When I asked him to tell me more, he elaborated:

The can, you know, it has red, blue, and green on it and stuff like that to notify the colors. Well it’s a spray paint bottle and it had “D” on it for my name and it’s the spray of life, that’s what I call it. And I show it spraying, and the spray has actual buildings and stuff.

Dinari also talked about his mother’s heart failure. “I almost failed,” he told me, “because I couldn’t get my mind off my mom.” After a few inaudible words, he said:

[When I was] in sixth grade she had two heart attacks in one night, and she survived. Nothing’s wrong with her now. But, it’s like every time she gets sick I’m there, or I’ll just stand over her and be scared. ...And she said I saved her life pretty much. I think about that; it was in fifth grade. When I was a little bit younger, it makes you think I was a superhero. And she told me when she was having a heart attack, that me and her were the only ones at the house, and she said, “Run like the wind,” and she called me a superhero. And I ran to my grandma’s house, and I got my grandma. I ran as fast as I could, and I ended up saving her life and we got to the hospital.

Dini talked about how he would like to make this event into a movie one day. He also talked about his future plans, involving attending college, boxing, and going into the Army or the workforce, possibly “the business of Apple.” He added that his desire is to “create something and have a family.”
Lúcia. Lúcia is a Latina female who was assigned to Ms. Anderson’s eighth-grade reading class without a mandated curriculum. She remained in this class throughout the course of this study. In her initial survey, Lúcia answered that she spoke Spanish and English at home, and that, in addition to writing in English, she also wrote in Spanish with her friends and family. She indicated that she was undecided about whether she liked to write and that writing was hard for her. Lúcia agreed with the statement, “I only write when I have to write for school,” and she also agreed with the statement, “If possible, I usually avoid writing.” However, she disagreed with statements, such as “Writing is one of my least favorite activities”; “I worry about completing my writing work”; and “I never enjoy writing.” She also indicated that she felt confident about her writing ability in general and very confident when she was given a choice about the topic and when she was not being graded. When she was being graded she still felt confident, but when she was not able to choose the topic she did not feel particularly confident. Her survey responses also show that she enjoyed reading her writing aloud to the rest of the class and that she believed that her classmates would consider her a good writer. Although she considered herself a good writer, she was undecided whether her teachers or family would say that she was a good writer. Lúcia responded that she thought writing was important, because without writing “you wouldn’t be able to contact with other friends or family.” If she were allowed to choose the topic, Lúcia said she would write about her family and her life “because I feel it is really exciting.” She also chose her family—and her teachers and friends—as the audience for her writing because, as she explained, “I don’t like to share things to the people I don’t know.” The writing that she considered her best was an essay that she wrote for the honors society. She described, “When I wrote i felt strongly and confident on the words i was writing because i felt really smart to be in it.” Lúcia said she did not remember her worst writing, but then added: “I guess it was when I
was in like third grade trying to write a story when i didn’t know how to spell things.” When given a writing assignment, Lúcia says that she feels “scared, proud, and responsible.” When given a writing test, she feels “scared, frustrated, unthinkable, and distracted.” However, the one word that best describes how she feels about writing is “CONFIDENT.”

In Lúcia’s survey follow-up interview, I asked her to talk more about her writing, and she said:

Sometimes I enjoy it, and sometimes I don’t. Sometimes, like when it’s an assignment and they tell you what to write, it’s not really as enjoyable as picking your own thing to write about…Sometimes it’s hard for things to just pop into my mind when it’s about something specific.

Lúcia explained that she likes to write about certain topics, such as sports, nature, and weather. She mentioned volcanoes and tornadoes in particular. She also said that, when she had the ability to choose what to write in her journal, she liked to express herself in different ways. Sometimes she tried to be funny, sometimes serious, sometimes sad, and at other times happy and excited. Although Lúcia confirmed she felt confident about her writing, she also reiterated, “I don’t really like to write,” and told me that she did not write outside of schoolwork. When pushed to think if she did any other writing outside of school, she told me that she sometimes wrote birthday cards and that she helped her brothers, who were enrolled in the Head Start Program, and her cousins with their homework. She also explained that she helped her mom with English by translating letters for her. Lúcia also text messages with her friends, but did not mention this until I asked her directly. She said, “like, you don’t really spell things right when you write. Like, you write ‘LOL’ and things like that ‘cause you text kind of fast. Well, sometimes I write it right, and sometimes I’m just, like, kind of tired and I just write, like, the
abbreviations.” In contrast, Lúcia talked about the essay that she wrote for the National Junior High honors society. She explained, “When I wrote the essay to try to get in, I tried to use proper language to get in, ‘cause I thought it would be kind of hard to get in. And then, like, I used as much, like, vocabulary that I knew. And I tried to explain things in detail and use, like, punctuation.” After presenting her essay, Lúcia was admitted to the honors society. She explained that she has certain responsibilities because of her membership, such as helping the school environment by cleaning up outside of the school and recycling, and also serving on the yearbook committee. In addition, every day Lúcia and another girl take lunch cards to the students who are in ISS (in-school suspension).

Lúcia told me that her favorite subject is math and that she is really good at it. She was, however, concerned that she was supposed to be in the Algebra class; after she took an honors test to gain admission into the class, she reported learning that she would not be moved into it. She did not understand this, as she had earned a 100% on her most recent class test. Lúcia recognized that her schoolwork would be important for her future career; she wants to be a doctor.

**Data Collection Methods**

Data collection for this study took place primarily in the 2012-2013 school year between September and May. In the two years previous, however, I had gained knowledge of the school site and the teacher. In the school year after primary data collection (2013-2014), I continued to collect interview data from Ms. Anderson and also gathered additional online data. I collected general data continuously throughout the school year, and also collected data in phases, as detailed below.
Continuous General Data Collection

Throughout the course of the year I took classroom photos, and frequently audio-recorded the classroom activity when I was present and occasionally when I was not present – (When the students were engaged in activity in the computer lab and I was not able to be present on several occasions Ms. Anderson audio-recorded sessions for me.) During lesson time, I took on the role of an “unhelpful but attentive” adult in the classroom (Dyson & Genishi, 2005). I spent the majority of my time observing. I discovered that it was difficult to talk to students during lessons, because they were listening to the teacher, working quietly, or working with a partner. Whenever the opportunity arose, however, I would talk to my focal students, as well as others, and ask them to explain to me what they were working on. As an adult, I believe the students considered me an authority figure.

My relationship with Ms. Anderson was collegial, and we engaged in many informal discussions about the students and their work. When she was learning to use Scholar, I had helped her, but by the time of the study she rarely needed my help with the application. She was aware of my interest in the students’ work and frequently offered me curriculum materials and worksheets that she was using with the students even before I asked for them. In addition to the other data I gathered during the 2012-2013 school year—and in the year after—I also collected online data about the school and about the two programs used, Scholar and SOLO.

Phases of Activity System-Focused Data Collection

I divided activity system-focused data collection into three overlapping phases:

Phase One. Phase one, which took place between September and November, involved “casing the joint” (Dyson & Genishi, 2005). During this phase I conducted classroom observations with an emphasis on getting to know the participants within the classroom, the
kinds of activity that they engaged in, and the cultural norms that governed this activity. During this phase I also conducted writing-focused student surveys (see Appendix A) and follow-up interviews (see Appendix B), and informal and formal teacher interviews. In addition, I selected focal participants.

**Phase Two.** Phase two, which took place between November and February, involved classroom observations and artifact collection from focal students. During this period I was particularly interested in students’ activity within the Scholar online environment; consequently, I spent more time in the class without the mandated curriculum (the class with the mandated curriculum did not use Scholar). As I came to realize that the class with the mandated curriculum was unlikely to use Scholar over the course of the year, I decided to find out more about the online environment that they were using, SOLO. Although I had observed students using SOLO, I had not previously investigated the environment in detail.

**Phase Three.** In phase three, which took place between February and May, I returned to the mandated class on several occasions when they were using SOLO, and I took video screen captures from three students. During this period I occasionally continued to observe each of the classes and spoke informally with students and the teacher about their classroom activity.

**Data Sources**

As is typical with ethnographic work, my data was obtained through observations, interviews, and artifact collection. I sought to establish the trustworthiness of the data by multiple means: extended engagement at the site over the course of an academic year, including variation in the day and time of observations; extensive data collection, including numerous observations of each class and the collection of a large volume of artifacts; the use of various
data sources and collection methods; and the triangulation of data within and across data sources.

The table below provides an overview of the data collected.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Collection Methods</th>
<th>Description and Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations</td>
<td>• Wrote field notes&lt;br&gt;• Audio-recorded and transcribed selectively</td>
<td>• Class with the mandated curriculum (26 plus 5 classroom audio recording when I was not present)&lt;br&gt;Class without the mandated curriculum (24)&lt;br&gt;Class observations were between 45 and 90 minutes</td>
</tr>
<tr>
<td>Interviews and pre-interview surveys</td>
<td>• Audio recorded and transcribed selectively&lt;br&gt;• Email interview&lt;br&gt;• Online survey</td>
<td>• Interviews with Ms. Anderson (4)&lt;br&gt;• Interviews with focal students (14)&lt;br&gt;• Brief informal conversations (50+)&lt;br&gt;• Pre-Interview teacher survey (1)&lt;br&gt;• Pre-Interview student surveys (60)&lt;br&gt;Interviews were between 20 and 30 minutes</td>
</tr>
<tr>
<td>Artifacts</td>
<td>• Gathered by hand&lt;br&gt;• Downloaded from Scholar&lt;br&gt;• Photographed&lt;br&gt;• Video screen captured&lt;br&gt;• Performed online searches</td>
<td>• Work artifacts from students in the class with the mandated curriculum (100+ pages and screen captures)&lt;br&gt;• Work artifacts from students in the class without the mandated curriculum (100+ pages and screen captures)&lt;br&gt;• Curriculum and instruction materials (50+ pages)&lt;br&gt;• Teacher’s initiating texts (20+)&lt;br&gt;• Classroom photographs (50+)&lt;br&gt;• Local newspaper articles (2)&lt;br&gt;• Reed Junior High School web pages (10+)&lt;br&gt;• Scholar web pages and online videos (10+)&lt;br&gt;• SOLO and Voyager web pages and online videos (10+)</td>
</tr>
</tbody>
</table>

Table 3.3. Overview of data collected.

As I recorded classroom activity and collected other data, I used Engeström’s (1987) construction of an activity system as a heuristic. This construct prompted me to consider the various tools, rules, and divisions of labor involved in classroom activity, as well as the different actors, objects, and outcomes. At times, however, this construct made my collection process feel a little overwhelming; so much appeared relevant that it was difficult to know where to focus my attention. Given this dilemma, I found Prior’s (2004) tracing methodology particularly helpful.
Whenever possible, I attempted to ground my data collection with the students’ literate artifacts. For example, one day when I was observing the class without the mandated curriculum, the students were working on a “quick write” about what they might like to write about in a science fiction story. I asked the teacher more about this, and discovered that she had read them a Kurt Vonnegut story from which they were to take inspiration as they wrote their own science fiction stories in Scholar. She provided me with the story that they had read, and then, over the course of several weeks, I collected other materials that related to this project—including review criteria, outlines, worksheets, classroom discourse, as well as all of students’ online writing. Grounding my data collection within the students’ literate artifacts helped to make my data collection more manageable and focused.

**Data Analysis and Synthesis**

Central to my analytical process were the construct of an activity system (Engeström, 1987) and a tracing methodology (Prior, 2004). The unit of analysis was students’ online literate activity. This was a holistic unit that was comprised of the various components of the activity system (i.e. subjects, objects, outcomes, tools, rules, divisions of labor, and community). Data analysis took place in four overlapping phases.

**Phase One**

The first phase began as soon as data collection commenced and continued throughout. As I made observational notes and collected artifacts, I attempted to notice and name the various components of the activity system that were evident. Whenever possible I used emic terms drawn directly from the data. I did not open-code my data; instead, I used the components of the activity system to guide this preliminary coding. For example, I placed my focal students in the subject position and then attempted to consider the objects and outcomes of their activity. This
was much more difficult than I had expected. The material outcomes of their activity were relatively easy to determine (e.g., a workbook page, a reading response, a science fiction narrative story, a multiple-choice test). The objects of the activity, however, were far less clear (e.g., Were students composing a story or completing a task or any number of other things? Were they learning a reading strategy, or completing a workbook page, or attempting to get their graduation points in order to go to high school?). I also noticed and named different mediators that were part of their activity: tools (e.g., “Journeys student workbook,” “VFW essay contest outline,” “WIN main idea strategy,” “annotation tool”), rules (“work silently,” “line-up quietly,” “be respectful,” computer lab priority access for reading interventions), and divisions of labor (IRE discourse patterns; computer directs, student responds; peer-to-peer feedback). I also considered community members both those who were present within the classroom (peers, teacher, and the researcher: me) and those who were absent but evident (district administration, those involved in developing the computer program, policy makers). Frequently, I was aware that these preliminary codes could fit under multiple components of the activity system. This was particularly true when I was thinking about rules and tools. This, however, did not concern me too much, as I was aware that the activity system itself was a construct—and its value was in how it helped to illuminate the various mediators. I did not want the construct to constrain my thinking.

**Phase Two**

In the second phase of analysis, I used Prior’s (2004) tracing methodology. Using this methodology for data collection had already led me to collect many connected types of data. In this phase, I considered students’ online literate artifacts as my starting point. I then traced from students’ online artifacts to other texts and discourses evident within the activity system. For
example, I began with Lúcia’s first draft in Scholar, and then traced this text backwards to discover the initiating texts involved in its construction (e.g., planning sheets, review criteria, teacher’s assignment guidelines) and forwards to consider the peer comments and changes made in the text before the final draft. This process was similar to Halverson and Magnifico’s (2013) “bidirectional analysis.”

**Phase Three**

In phase three, I synthesized my data. Using a pin board I built visual representations of the students’ online activity systems for each of the classes. Again I used Engeström’s model as a heuristic to help illuminate the most salient mediators.

![Figure 3.9](image.jpg)

*Figure 3.9. An example of using a pin board for the visual representation of data.*

As I built these visual representations, I focused on the online artifacts (outcomes) and the related mediators that I had identified in phase two. These visual representations helped me to develop a better understanding of the various mediators (tools, rules, and divisions of labor) involved in students’ online work products.
Phase Four

In the first three phases, I conducted my analysis separately for each of the classes. In phase four, I examined the synthesized activity systems from each of the two classes and did a cross-class comparison (Stake, 2006). At this stage, once again, I employed the activity system as a heuristic, looking across the two classes to compare the different tools that they used, the rules that governed their activity, and the divisions of labor that were visible. I also looked more specifically at the tensions – or contradictions – both within and across these two connected activity systems. For instance, tensions were evident between the collaborative activity espoused by Scholar and the individual activity normative within the school setting.

Chapter Summary and Conclusion

In this chapter I articulated my research design and methodology. In alignment with the CHAT framework, I used a case study design with ethnographic methods to provide situated accounts of students’ online literate activity. In addition, I employed activity system analysis (Engeström, 1987) and a tracing methodology (Prior, 1994) to illuminate the mediators that constituted this activity. This chapter included information about the school, the teacher, the classes, and two of the students. Although this information is presented in the methods chapter as contextual to the study – as is standard for educational research – I am reminded that CHAT does not recognize such a division (i.e. the activity and the context), the context is an important constituent of the activity. In the next two chapters, I provide accounts of students’ online literate activity in the class with a mandated curriculum (Chapter 4) and in the class without a mandated curriculum (Chapter 5).
CHAPTER 4

THE CLASS WITH A MANDATED CURRICULUM

In this chapter, I outline the findings from Ms. Anderson’s eighth grade language arts class with the mandated curriculum. The chapter opens with a vignette introducing the class and a brief description of the online environment that they used. Then, in the body of the chapter, I describe the nature of students’ online activity. I articulate three main findings: (1) online activity was focused on reading; writing was scarce and insubstantial; (2) online activity was influenced by offline mediators, in particular, the class’s mandated reading curriculum introduced primarily because of the accountability policies; and (3) online activity restricted the roles and literate identities available to students. Finally, the chapter concludes with a summary of findings from this class.

The Class with the Mandated Curriculum and SOLO

The school bell signals the beginning of second period as the last of the students sits down at her desk; desks are arranged in long, vertical rows across Ms. Anderson’s classroom. It is a late September morning about a month into fall semester and these eighth graders are now familiar with many of the routines of this language arts class. They know, for instance, that Ms. Anderson expects them to come into the room quietly, each collect their Journeys box from under the window, and sit down ready for a warm-up activity, usually a quiz or a game. Following this, they know that Ms. Anderson will likely talk about a reading strategy, they will read something from their student anthology, and they will answer questions in their workbooks. Perhaps they might also work with a partner to practice reading fluency.

This morning, however, is different. When the students enter the room Ms. Anderson tells them that they will not need their Journeys boxes. As she hands out yellow sticky notes, she
announces, “We are going to the computer lab.” She then stands at the front of the room, calling out students’ names, user IDs, and passwords. As instructed, the students record their passwords on these yellow sticky notes before lining up. Their line stretches from the classroom door across the front of the room to the teacher’s desk and then curls along the side of the room by the windows, almost reaching to the back of the classroom.

Figure 4.1. Photographs of Ms. Anderson’s classroom, showing desks and the Smart Board (top) and curriculum work boxes (bottom).

The volume of chatter among the students increases until Ms. Anderson’s voice interrupts them. They are told not to talk in the corridor and to choose their seats in the computer room wisely. Led by Ms. Anderson, the students walk down the otherwise empty
corridor past the library and enter the computer lab. They place their backpacks on the empty table that runs along the side of the wall. Each student then sits down in front of a computer screen. In this windowless room, the computers are organized in neat rows, and the students’ chairs face a whiteboard at the front of the room. A projector hangs from the ceiling and is connected to a computer at the back of the room.

Figure 4.2. The 8th grade computer laboratory.

Ms. Anderson writes a web address on the board—http://solo.voyagerlearning.com—and the majority of the students type it into a web browser correctly on their first attempt. After some assistance from Ms. Anderson and their peers, each student faces the SOLO login screen.

Figure 4.3. The SOLO login screen.
Ms. Anderson directs the students to log on. She tells them, “Just do expedition one. If you get done, you can read online books from the book cart.” The students then enter their user IDs and passwords and are taken to a screen titled “expedition map.” They put on headphones, click on Expedition 1, and follow the auditory and textual prompts. The room is virtually silent as each student faces his or her computer and is directed from screen to screen by an animated teen character. As the animation’s lips move, the students hear its voice through their headphones; they also read what the character is saying in the speech bubble above its head, where each word is highlighted in yellow as it is spoken. For the rest of the period the students work in virtual silence with only the occasional nudge and whisper between peers and the occasional reminder from Ms. Anderson to focus on the screen. (Computer lab observation, 9/25/12)

Throughout the rest of the academic year, when students in this class visited the computer laboratory—just once or twice within an average two-week period—it was almost exclusively to access SOLO (Strategic Online Learning Opportunities), which was an online application that accompanied the Passport Reading Journeys (PRJ) curriculum that was used offline in the classroom. In a one-minute online video (https://vimeo.com/59871430), Voyager Learning, the company that sells PRJ, introduces SOLO in the following way:

Comprehension strategies explicitly taught and practiced in the classroom culminate in a motivating online environment. Animated teen hosts carefully guide students down an automated skill path. Expedition themes introduced by the DVDs are captured in the daily lessons and continue in the SOLO reading passages. These passages are offered at three levels of difficulty or lexile ranges. SOLO is entirely web-based and requires no special software or hardware, just Internet access. In SOLO skills taught and practiced are
based on a strategic reading set derived from the work of researchers in Collaborative Strategic Reading. Each new strategy is introduced and applied systematically.

Ms. Anderson’s views on SOLO, however, differed somewhat from the company’s. When asked about her perceptions of SOLO, after the school year was over, she replied:

I felt SOLO was disjointed from the rest of the curriculum. The topics are supposed to align with the expedition students are learning about, but it was recommended that students work at their own pace, so more often than not, the expeditions didn't actually align. It was also easy for students to "mindlessly" select answers, as it would say “need more practice” at the end of a SOLO lesson, and we didn't have training to know what to do with that. For being in a computer lab, students did not appear to be engaged in the SOLO lessons. I did not feel it was an adequate exposure to the use of technology.

My observations and screen captures of students using SOLO indicated that the students were on-task for a high proportion of instructional time when working in SOLO. Although students occasionally expressed frustration when they were directed to redo tasks several times, they generally followed the prompts within the program, working silently and independently. In the following three sections, which make up the body of this chapter—Online Activity Was Focused on Reading; Online Activity Was Influenced by Offline Mediators; and Online Activity Severely Restricted the Roles Available to Students—I provide a description of the nature of activity within and beyond the SOLO online environment. In order to provide a detailed and coherent account, the examples presented are all taken from the experience of one student, Dinari, a Black, adolescent male.
Online Activity Focused on Reading

A primary finding was that online activity for the mandated class focused on reading. Reading within the *SOLO* environment was presented as applying specific strategies to informational text and increasing reading speed. Other representations of reading, such as “reading as a game” and “reading as a test,” were not given directly within the *SOLO* promotional materials but were evident both explicitly and implicitly within the program. Additionally, reading within the *SOLO* environment was experienced by the students as a solo and silent activity. Writing, which was scarce and insubstantial, was used only to support reading.

**Reading as the application of specific strategies to informational text.** During each visit to the computer laboratory students usually completed one out of two online sessions within an expedition. Over the course of the year most students completed nine of the fifteen expeditions, shown in the figure below.

![Expedition Map screenshot](image)

*Figure 4.4. The Expedition Map screen.*
Aside from the first expedition, *Connections*, which introduced students to the online environment and the animated teen hosts, all of the expeditions that students completed related to social studies or science topics: “Forensics,” “Space,” “Fitness and Health,” “Uncontrollable Forces,” “Computers,” “Money,” “The Environment,” and “Microscopic Things.” Expedition 13, *Storytelling*, focused on fiction texts; however, the students did not reach this expedition.

As students progressed through the expeditions, they were taught specific reading strategies for understanding informational texts; they practiced these strategies and were tested through a series of multiple-choice questions. Five informational-text reading strategies were taught, practiced, and tested: *previewing, vocabulary, main idea, questioning, and summarization*. Each of these strategies was introduced by an animated presentation describing the strategy. *Previewing* and *vocabulary* were introduced in Expedition 2, *main idea* was introduced in Expedition 3 (and extended in Expedition 4), *questioning* in Expedition 5, and *summarization* in Expedition 6. These animated presentations were occasionally repeated to remind students of specific strategies; students were also able to access these presentations whenever they chose through the tool icon at the top of their screens. Once presented, the strategy provided a focus for practice and testing within the expedition in which it was introduced. It was also reinforced through periodic practice and testing within the expeditions that followed.

*The previewing strategy.* In the animated presentation on previewing, students were told, “the previewing strategy has two components:” *brainstorming and predicting*. One of the animated teen hosts explains that the two parts involve “brainstorming what you know about the topic; and predicting what you will learn from reading.” The animated host adds, “Preview before reading new text” and “Check your ideas as you read.”
In the following example, Dinari uses the brainstorming strategy as directed by the animated teen host, Porscha. After introducing Expedition 6, “Computers,” Porscha tells Dinari: “Think about the topic for this Expedition–Computers–and what you know about them. Before reading, *A Computer in Your Head*, Dinari is prompted: “List two brainstorm ideas in the text boxes below.” Dinari’s cursor moves over each sentence in the first paragraph of the assigned passage, and then down to the blue box at the bottom of the page. In the first box Dinari types, “what special things your brain can do.” In the second box he types, “and hope.” He then deletes the “pe” at the end of the word hope and changes the word to “how.” Next, he adds a “u,” so that the words, “and how u” appear in the text box. He then pauses for a second, before spelling out the rest of the word, “uniqe.” When this word is underlined in red, he deletes the entire word except for the first letter, “u.” He then pauses for about twenty seconds (I believe during this time Dinari whispered to one of his peers asking for the spelling) before typing “unique,” using standard American orthography. He then clicks the “Submit Answer” button.

![Figure 4.5. Prompt for student to “list brainstorm ideas” and Dinari’s partial response, showing the red line under the word, “uniqe.”](image)

After submitting his brainstorm ideas, Dinari receives no feedback; instead Porscha tells Dinari: “Prediction is a link in the Previewing chain that can really help you organize your thoughts. You’re really getting the hang of this but just remember: Picture - Title - Subtitles - Words. Ready?” These words appear in a speech bubble above Porscha’s head. As the sound of her voice is conveyed to Dinari’s ears via the headphones, each word within the speech bubble is
highlighted in yellow. During the entire time that Porscha is speaking, Dinari’s attention is focused on the left side of the screen as he scrolls down the text, *A Computer in Your Head*. Before I can see what happens next, time is up, and the students must leave the computer lab.

![Image](image.png)

Figure 4.6. Porscha, one of the animated teen hosts, provides information about previewing to Dinari.

**The vocabulary strategy.** Like the *previewing* strategy above, the *vocabulary* strategy was introduced in Expedition 2. This strategy was described as having three components: *context*, *parts*, and *resources*. The mnemonic CPR, as seen in the screenshot below (left), represented these parts. The PRJ training manual provides a simple definition of each of these components (below right). The manual also states: “Periodically, during the vocabulary Flash presentations are used to introduce the strategy a Pop Quiz will appear to confirm the student’s understanding of the concept.”
Below, Porscha explains the importance of words and context:

Gregory says that the words you learn are like money in the bank. He’s right! Once you learn a word, it’s yours. You can store it in your mental hard drive – your brain – and use it when you speak or write. You may have to see a word in print many times before you learn it and it really helps if you hear it often. Many words have more than one meaning. Often, you can tell which meaning is intended by the context. In this Expedition, you’ll figure out the meaning of two vocabulary words by context. Remember, read the sentences with the word, before the word, and after the word. Read carefully and you’ll figure out the intended meaning.

Periodically, when students were asked vocabulary questions, a box would appear to the right of the text titled, “Tools to Help You.”
Sometimes, all of the tools were available to students and at other times some of the tools were “disabled.” Resources, such as an affixionary and a dictionary were also accessible at the top of the screen.

The above figure from the PRJ overview document, found on the company’s website (http://www.voyagerlearning.com), shows the toolbar and provides an explanation of the various tools available to students. The tools embedded within the program were easily accessible to students and closely aligned to the rest of the program; at times, perhaps too closely aligned. For instance, the correct answer for vocabulary multiple-choice questions frequently corresponded with the simple and often sole definition provided within the SOLO dictionary, as seen in the examples below.

Choose the best definition for the following word.

Word: authorization
- ability or skill
- curiosity or interest
- permission or right
- help or support

Enter a word to look up
authorization

legal or official power or right; permission

Figure 4.9. Tool bar at the top of the SOLO screen with an explanation of the tools.

Figure 4.10. Multiple-choice question for the word “authorization” (left) and definition provided in the SOLO dictionary (right).
In addition to the online dictionary, students also had their own word bank within *SOLO*, and at the beginning of each new expedition, each student was prompted to add words from the previous expedition to his or her word bank.

When Dinari begins Expedition 6, he is directed to review a passage from Expedition 5 and told to choose two words from a list “that were new” to him to add to his *Word Bank*. As shown in the screen capture below, Dinari is given six word options. Dinari is not given the option to indicate that none of the words are new to him, nor is he able to choose other words from within the passage that he might consider new. After moving the cursor across the word list several times, Dinari quickly chooses “eruptions” and “rupture” and clicks “submit answer.” Without having been offered feedback on his responses, he is then presented with the first informational text within the expedition.

Vocabulary practice and testing were components of every expedition. Vocabulary was usually reinforced by a series of multiple-choice questions like the one Dinari answered in the figure below: “Choose the best definition for the following word. Word: destruction.”
From the four options provided, Dinari chooses, “ruin or damage,” he is told, “Good for you!” and then immediately moves to the next screen where he is directed to “Choose the best definition” for the word “tremors.” The choices are: “imaginary creatures,” “causes of fear,” “shaking movements of the earth,” and “earthquake deaths.” Dinari scrolls to the top of the text, pauses for a moment, and then checks “shaking movements of the earth.” When he clicks “Check Answer,” he is told, “You’ve got your brain in gear today.” After clicking “Continue,” Dinari is presented with another vocabulary question. He is asked to choose the best definition for the word “fractures.” He is given the following options: “breaks or cracks,” “places where land meets water,” “natural disasters,” and “sections of earth.” His cursor hovers over the options for a second and then he chooses, “breaks or cracks.” Once again, he is told, “You’ve got your brain in gear today.” Another vocabulary question follows. This time, the word for which he is being asked to select a definition is “rupture” and his options are “to go back together,” “to keep moving,” “to become weak,” and “to break open.” This time, Dinari pauses for several seconds before choosing “to become weak.” In response he is told, “Give it another try.” This time the response text is in red, as opposed to the previous positive responses that have all been in green. Dinari then selects the correct answer, and the computer responds: “Not bad.” Another question appears. He is asked to choose the best definition for the word “eruptions” from the options “disappearances,” “sudden outbursts or breakthroughs,” “buildups or piles,” and “secret or hidden things.” He quickly clicks on “sudden outburst or breakthroughs” and is told, “Way to
go!” Finally, in this sequence of vocabulary questions he is asked to choose the best definition for the word “massive.” His options are “unusually large,” “very few,” “unusually boring,” or “very small.” Dinari immediately chooses the first option and is told, “That’s better.” Dinari then clicks “Continue,” and he is directed to his next activity by the animated teen host.

Within this series of multiple-choice questions described above (and within the other sets that dominated the students’ online activity), it is possible to see the IRE pattern of discourse so common in classrooms. While the student’s role remains the same – responding – the computer program takes on the role of the teacher – initiating and evaluating. In this space, however, the discourse is even more restrictive than in the classroom because the “teacher’s” questions and evaluations are pre-programmed, and the student’s responses are restricted to one of the provided multiple-choice answers.

**The main idea strategy and the questioning strategy.** In the PRJ training manual the main idea strategy is identified as “a three-step sequence represented by the mnemonic aid WIN.” This strategy, the manual states, “helps students sort the important information from the unimportant details.” In SOLO, students are instructed to use the WIN mnemonic to locate the main idea of a text. They are taught first to “identify the who or what;” next, to “identify the most important information about the who or what;” and finally, to “identify or generate a main idea statement using the smallest number of words.” The questioning strategy is introduced immediately after the main idea strategy. The PRJ training manual explains: “Once students identify main idea statements, they generate questions to confirm their understanding. Who, what, where, when, why, and how questions help students recapture the important ideas in the passage.”
In the example presented below, the teen host is reviewing the main idea and questioning strategies with Dinari. The host’s words, which are also played to Dinari through his headphones, can be seen in the screen capture. Dinari is told, “Remember the last time we went downcourt? We practiced the WIN strategy to find main idea, but we added a new part to the drill. We learned the questioning strategy. Here’s another look at how it works.”

After clicking continue, Dinari then sees the word “loading” appear on the screen for a second before being presented with an animated movie on the questioning strategy.
Figure 4.16. Screen captures from the animated movie of the questioning strategy showing the question (left) and the answer in the text (right): what (top), why (middle), and how (bottom).

The movie begins with one of the animated teen hosts standing on a track and holding a microphone. In the background we see a runner rounding the track before joining the host. The
runner is an animation of Olympic medalist Maurice Greene. Greene’s story is used to demonstrate the questioning strategy, as shown in the screen captures above. After each question is displayed, the answer is highlighted within the text. Finally, at the end of the animated presentation, Maurice Greene waves and runs off, and a box appears prompting, “Click ‘NEXT’ to continue.” When Dinari clicks “next,” his animated teen host provides the following message:

You’ve just seen the questioning strategy a second time. With this strategy, you get to think like a teacher. Use the 5Ws – who, what, where, when, why – and the H or how. Now you can try it on your own. You’ll go step-by-step through the WIN strategy. Then, you’ll choose the best question.

Again Dinari is prompted to click “next,” and he is immediately presented with a passage and the first of a series of multiple-choice questions.

As directed by the textual prompt, Dinari reads the highlighted paragraph, moving the cursor forwards and backwards across the page as he reads. He then moves his cursor down to the bottom of the page and clicks on the word “nature” to answer the question, “What is the most
important who or what of the paragraph?” In response to his answer he is provided with the word, “Super!” in green. The next question reads, “What is the most important information about nature?” and when Dinari answers, “It can be violent,” he is told, “You’re really working hard today.” He is then asked, “What is the best main idea statement for the paragraph?” He chooses, “Nature can be violent,” and is told, “I’m very proud of you.” The final question of the paragraph is “Which of the following is the best question about the main idea of the paragraph?” He is given the following options: “What is nature? “What can happen to nature?” “Where is nature?” “Why are people excited about nature?” Dinari chooses, “What can happen to nature?” the phrase “I knew you could do it” appears.

Dinari is then presented with another bolded paragraph, and the same sequence of four questions: the first, a “what or who;” the second, a “most important information;” the third, a “best main idea statement;” and the fourth, asking for “the best question.” Dinari responds to all, except for one, by clicking on the answer regarded as correct, and he is given positive feedback: “Now you’ve got the hang of it,” “That’s right,” “Keep up the good work,” and “Congratulations!”

The question that Dinari answers “incorrectly” is “What is the most important information about volcanic eruptions?” It takes Dinari much longer to answer this question than the others, and he repeatedly runs his cursor forwards and backwards over the text before
answering, “They can spew lava.” He is told to “Give it another try,” and then provides the “correct” response, “They can cause earthquakes.”

The online host tells Dinari, “Hey, that was a fast drill, but like I told you before, it’ll pay off down the road.” Before directing Dinari to the next task (the end-of-expedition multiple-choice test questions), the host provides some more advice about the questioning strategy:

Focus on the Question

The words you have learned for the questioning strategy are really important. Focus on these words as you read questions. For example, if the question asks who, then the answer is a person or character; if the question asks where, then the answer is a place.

The first question in the end-of-expedition test then follows: “How does the questioning strategy help you become a better reader?” Dinari’s cursor moves up and down between the first two options: “It helps you recall important information” and “It keeps you from losing your focus when you read.” Finally, he chooses the first option. As this is a test, he does not receive immediate feedback from the learning software as in the practice sessions; instead, he is immediately provided with another multiple-choice question.

Figure 4.19. Question about the questioning strategy.

In the multiple-choice questions in this section it is possible to see further examples of the IRE discourse pattern common in a didactic pedagogy. Similarly, the animated movie and teen host’s narrations provide further examples of this didactic approach.
**Summarization.** The final strategy introduced in SOLO is summarization. According to the training manual, this strategy “uses main idea statements and the answers to who, what, when, why, and how questions to help students form summaries.” In addition to these questions, which help students to summarize, the manual explains that students are also provided with “frames” that serve as supports “as they acquire facility in summarizing.” Summarization was introduced in Expedition 6. At the end of April, I observed Dinari and the other students working on Expedition 6; however, they did not reach the part on summarization.

![Image](image.png)

Figure 4.20. Screen capture from the animated presentation on the summarization strategy.

**Reading as fluency.** SOLO featured bimodal reading. For the majority of their time using SOLO, students received the simultaneous presentation of both audio and visual stimuli. As students heard the words spoken, they would also see the words highlighted in yellow within the text. In addition to modeling reading fluency, the SOLO environment provided frequent opportunities for practicing and testing reading fluency. When a student read a passage for the second time, this reading was timed and the student would receive a fluency score.
In the screen capture above, the animated teen host introduces Dinari to “another way to work on your reading game.” The host tells him, “This kind of practice will improve your fluency score”; he ends by telling Dinari, “You’ll move from word to word as easily and automatically as you walk.” Then a box appears above the host’s head that informs Dinari, “This exercise is timed. When you’re ready to begin, click READ NOW.” Dinari clicks the button and then moves the cursor over the passage on the left of the screen, “Nature’s Violent Side.”

Dinari’s cursor moves forwards and backwards across each line of the text. Some words in the passage are marked in bold, such as the word “destruction.” When Dinari’s cursor moves over these words, it is possible to see that the bolded words are clickable links. Other words in pale red—such as “occasionally,” “collapse,” and “deadliest”—are also clickable links. Every so often, Dinari reaches a drop-down box. For instance, in the first paragraph of the text, there is a drop-down box after the words, “Nature can become.” He clicks on the box, and a list of three words appears: “violent,” “vigorous,” and “vast.” Dinari chooses “violent” and then continues. Further down the screen there is another drop box, this time in the middle of a sentence: “Sometimes one of the earth’s moving…is forced deep into the earth, and it begins to melt.” When Dinari clicks on this box the options “places,” “plumes,” and “plates” appear.
Dinari scrolls down and chooses “plates.” Once again, in the penultimate paragraph there is a drop-down box, “Volcanic eruptions and earthquakes have destroyed complete…” His options are, “cities,” “sites,” and “citizens.” Dinari quickly chooses “cities” and continues moving his cursor across the text. Three minutes and twenty-one seconds after clicking on “READ NOW,” Dinari moves his cursor from the last word of the text up to the top right of the screen and clicks, “DONE.” He is told, “You’ve done a great job! You read 137 words per minute. That’s great!”

He is then prompted to click “NEXT,” and directed to the next task.
**Reading as a game and a test.** In the fluency example above, the animated teen host told Dinari, “here’s another way to work on your reading game.” He was then tested and given a reading score. The representation of reading as both a game and a test is apparent throughout the SOLO program. Reading as a test is evident not only in the frequent timed fluency testing, but also in the use of multiple-choice questions as the primary means by which the students progress through each expedition, as illustrated in the *Reading as the strategic acquisition of information* section. While students were being tested, however, the design of the program and the discourse within it were more closely aligned with the activity of a game than with an academic pursuit. Not only were the expedition hosts who directed students’ activity animated teens, but these animations also communicated with informal language. In addition, reading was explicitly referred to as a “game” or discussed as a game by analogy.

In the examples below, drawn from different points within Expedition 5, the animated teen host talks to Dinari and connects reading to basketball. In the first example the host states:

> I’ve learned that I can improve my basketball game in different ways. I can work on my free throws and passing. I can practice dribbles. I can even work on my dunk. (Yeah, I can dunk!) The same thing is true for improving your reading game. Vocabulary is one of those things you practice your whole life.

Later in the expedition the same teen host introduces a review of the questioning strategy in the following way:

> Remember the last time we went downcourt? We practiced the WIN strategy to find main idea, but we added a new part to our drill. We learned the questioning strategy. Here’s another look at how it works.
Finally, at the end of the expedition the animated teen host makes another reference to basketball in his closing message and once again uses informal language as he tells Dinari about how fun it has been practicing with him:

Hey, you did it. You really ran the court with me again and took some good shots. I just know your game is getting better. That’s good to know, since I’m out of here. But, it’s been really fun practicing with you. Maybe I’ll see you again sometime. Goodbye.

At the end of the expedition Dinari is presented with a certificate of completion. The certificate shows that he “correctly determined the meaning of 5 of 6 vocabulary words on the first try” and that he answered “3 of 3 review questions correctly.” In addition, Dinari’s expedition reflection is printed at the bottom of the certificate. His reflection is short: “what things can cause and make worse.” These are all the words that Dinari typed in the small text box provided. If he had typed more, however, his response would not have fit on the certificate.
**Writing as scarce and insubstantial.** Dinari’s end-of-expedition reflection is an example of how students’ writing within the *SOLO* environment was insubstantial. Opportunities for writing, which were always connected to reading, were rarely provided within the program. The text boxes that were made available for typing were small, and students usually only added a word or short phrase. Unlike when the students responded to a multiple-choice question, when students responded in writing, the learning software offered no response.

The image below shows the text box provided for Dinari’s end-of-unit reflection and his typing, which was added to the completion certificate above.

Similarly, the example below indicates the minimal nature of student writing within *SOLO*. The two ideas—“what special things your brain can do” “and how unique”—that Dinari types are connected with the conjunction “and.” In this instance, he actually uses more words
than the other students that I observed doing this same brainstorming task, as they just typed one word in each box.

![Image](image.png)

**Figure 4.27. Dinari’s brainstorm ideas.**

From my observations and video screen captures, a generous estimate is that students would have three or four opportunities to answer questions in writing—using text boxes like the ones above—for each online session. The overwhelming majority of students’ responses were completed through multiple-choice selections.

**Online activity as silent and solo.** In the PRJ’s program overview document found on the company's website ([http://www.voyagerlearning.com](http://www.voyagerlearning.com)), SOLO is described as “the interactive online learning component” of the PRJ program (p. 21) and as “Interactive Student Technology” (p. 32). The document emphasizes how SOLO provides independent practice for students while “accompanied by an animated version of their favorite video host, who can help them over the hurdles.” Although the program is interactive in that students can click on certain links, and the learning software can provide automated responses to students’ multiple-choice answers, the program does not provide opportunities for students to interact with peers or teachers. Information flows largely in the direction of the student user and the learning software is only able to respond to students’ input when it is quantifiable.

**SOLO** is not only a space for individual activity, but it is also one characterized by silent activity. Despite the software’s bimodal literacy function, which conveyed auditory as well as textual information to students, online activity in this space offered no opportunities for students’
voices. The headphones that students wore and the set-up of the computer laboratory, which prevented easy communication among peers, further reinforced the silent nature of SOLO. In addition, when students did talk to one another in the computer laboratory, the teacher used verbal cues to redirect the students’ attention back to their individual computer screens.

**Online Activity was Influenced by Offline Mediators**

Offline mediators influenced students’ online activity. The offline PRJ curriculum had a major influence on the SOLO program, perhaps unsurprisingly, as SOLO was a component of this curriculum. Many of the activities in SOLO mirrored activities within the offline PRJ curriculum. In addition, offline mediators, such as the district administration’s drive to fulfill its accountability policy, prompted the use of the PRJ curriculum. The district’s decisions also affected Ms. Anderson’s class’s access to the computer laboratory, which made it difficult for SOLO to be used in the way that its designers had intended. In the following subsection, I describe these offline mediators in more detail.

**The offline reading curriculum.** SOLO was an online application that accompanied the Passport Reading Journeys curriculum, which was used offline in the classroom. From the company’s website ([www.voyagerlearning.com](http://www.voyagerlearning.com)), Passport Reading Journeys can be found by clicking “Find a Solution” and then choosing “Literacy Solutions.” It is currently one of fourteen “literacy solutions” (shown in the image below) that the company offers. The term “literacy solution” implies that the students (and/or the teachers) are the problem – i.e. the students are in need of remediation and the curriculum is the remedy.
Figure 4.28. Fourteen “Literacy Solutions” from the company’s website.

These “literacy solutions” include programs for students in pre-k through 12th grades and address a variety of different needs, such as “early childhood success” and “struggling English learners.” Above these “Literacy Solutions,” the caption reads:
No matter what your students need — an early start with literacy development, a mild to moderate boost for grade-level reading, or a core replacement for intensive support — Voyager Learning’s literacy solutions are proven to help students become skillful, independent readers and achieve academic success.

On this same screen the following sentence introduces *Passport Reading Journeys*: “Take students in grades 6-9 on fascinating expeditions with this strategic reading intervention that builds reading skills.” By clicking on the PRJ link on the literacy solutions screen, viewers are taken to a screen with a more detailed overview of the PRJ curriculum. The opening sentence on this screen reports that PRJ “combines high-interest, action-packed reading expeditions with evidence-based instruction to capture interest and accelerate learning.” Below this statement five areas of focus are identified: “advanced word study,” “comprehension and vocabulary,” “personalized learning,” “real-world topics” [sic—presumably this should read “real world topics”], and “lifelong reading.” On the right side of the screen, viewers are invited to “Click here to view the PRJ Overview,” which leads to a 64-page PRJ program overview pdf document, with the tag line, “proven results that build academic vocabulary, comprehension, and fluency.” Alternatively, clicking on the link “training and support” provides information about “how you can implement passport reading journeys in your classroom”; four different training options are offered. Also on this page is a five-minute video providing a “program overview” (http://vimeo.com/59868724). After a brief musical introduction that flashes between eight different classroom scenes in seven seconds, the video narration begins with the following:

The Passport Reading Journeys series is a research-based intervention program designed to accelerate reading for middle and high school students. Journeys is a total reading intervention package. It features whole group instruction, flexible small group instruction
for differentiated learning, peer collaboration, interactive technology, and independent practice. Carefully crafted daily lessons facilitate systematic instruction in important fluency, vocabulary, and comprehension skills and strategies. Every component of Journeys is specifically designed to motivate and engage students.

Other videos are also linked to the PRJ page, with captions such as “get the results you need” and “captivate student interest.” Website visitors are informed, “The Passport Reading Journeys series has all the components that research indicates works best for struggling middle and high school students.”

SOLO, the online component of the PRJ curriculum, was intended for use in two out of every ten lessons. The majority of student time was therefore spent in the regular classroom using the rest of the PRJ curriculum. A teacher’s book was provided so that students could be carefully guided through a sequence of activities for each lesson. This book scripted the teacher’s dialogue. Typically, five to six pages for each lesson were provided to the teacher. The script would include information for the teacher to convey to students, questions to ask students, and expected answers that the students might provide.

The page shown below, for instance, instructs the teacher to “Write Online and In Touch on the board.” The scripted words are colored blue, “In Lesson 1, we read the article ‘Online and In Touch.’ What does going ‘online’ mean and how does it keep people in touch?” Following the scripted portion are answers provided in black type inside parenthesis: “(Going online means to use the Internet. Using the Internet allows people to contact other people all over the world by e-mail and to get information from all kinds of Web sites.)” The teacher is then instructed “Next to Online write = on the Internet. Next to In Touch write = using e-mail and surfing Web sites.”
The PRJ literacy curriculum lessons that the teacher provided offline were connected to texts within the students’ anthology and activities within the students’ workbook. As with SOLO, the lessons and activities involved practicing reading strategies with an emphasis on vocabulary practice. Below is an example of a typical page from Dinari’s workbook.
In the first section of the page, Dinari is directed to “Complete each sentence with the correct vocabulary word.” Six words—“renew,” “challenge,” “expand,” “equipment,” “recycle,” and “source”—are provided in a box. Dinari has chosen one word to add to each of the six sentences, listed as A through F. After this he has completed a section titled, “identifying who or what.” For each of three paragraph extracts, he has been asked to “identify the most important who or what.” His answer is written on a line that extends about three-quarters of the way across the page.

The WIN strategy that was taught and practiced in SOLO was first taught and practiced offline, as shown in Dinari’s workbook example below.
Similarly, all of the other strategies taught in *SOLO* were also introduced, practiced, and tested within the offline PRJ curriculum.

The students’ workbooks also included multiple-choice assessments toward the end of each expedition, such as the one that Dinari has completed below.
Although there were many parallels between the content and design of the offline and online curriculum, there were also some differences. For instance, the offline curriculum provided students with opportunities to work with peers. At times, students were given the chance to practice reading fluency together or to work with a partner or group to complete workbook activities. Additionally, the workbook activities more frequently involved writing than the activities within SOLO. This writing, however, was still insubstantial and was always connected to an assigned reading. Written reading responses occurred within about half of the lessons, but these responses were usually highly structured, such as the example below, in which Dinari is asked, “What are three different ways that you can improve your physical condition?”
and then given three sentence stems to complete: “To improve my physical condition I can …”
“Another way I can improve is by…” and “I can also…”

![Reading Response](image)

Figure 4.34. An example reading response from Dinari’s PRJ workbook.

For the most part, Ms. Anderson followed the PRJ curriculum materials. She did, however, frequently require students to write their reading responses outside of the workbooks, so that they could write a more extensive response. On a number of occasions she mentioned her concern that these students would be moving on to high school without much writing experience. Because of this, she explained, she tried to increase their opportunities for writing. Below are two reading responses completed by Dinari outside of his workbook. The first example is a reading response completed in the first month of the school year.
Figure 4.35. An example reading response that Dinari completed at the beginning of the year.

The second is an example of a reading response that Dinari completed toward the end of the school year.

Figure 4.36. An example reading response that Dinari completed towards the end of the year.
From these examples it is possible to see that Dinari did receive opportunities to write outside of his workbook and that his end-of-year writing is more extensive than the writing that he completed at the beginning of the year. All of this writing, however, can still be traced back to the PRJ curriculum.

**Administrative Decisions within the Accountability Policy Context.** The students’ online activity using *SOLO* can be traced to the offline curriculum that was used within the classroom. Yet, why were the students in this class using this particular curriculum? Ms. Anderson provided her understanding of the situation in an email interview:

Reading classes at each grade level were divided into three separate curriculums based on AIMSWeb scores in fluency and comprehension …. The three classes were Language! (students who scored lowest on the tests), Journeys (students who scored below average), and RLA [Reading Language Arts] (students who met or exceeded the target). My impression is that students were divided this way because a vast majority of our students were scoring below average on these tests and it was an attempted "band aid" to help fill skill gaps for as many students as possible.

A local newspaper article provided an account in the spring of 2011, the semester before this study, of the school principal giving a presentation “detailing how the junior high, through the Journeys Curriculum Program, could reach a set goal for reading.” The article explains that school officials extended the time allowed for reading classes to enable reading interventions, because the school “did not meet standards for adequate yearly progress in 2010 and has been on the state’s academic watch list for the last four years.” Another local newspaper article, from the spring of 2012, further expresses school administrators’ concern about students’ test results. Administrators had discovered that test scores would fall, because state test standards had
increased in rigor. A school official states, “The reason that they’re doing it is because the federal government has said, ‘Your tests are not rigorous enough,’ so they’re trying to meet that rigor because the Race To The Top money is tied to that rigor.” The article explains that the school board voted 5-0 in favor of accepting Race to the Top Funding. The board acknowledges that this funding is tied to government initiatives, but said:

Most of those were initiatives that we were working on anyway. We knew they were best practices, so the way we thought about it was, OK, these are the way we’re going to do things anyway. If you give us any support and any money, we’re better off. The funds are not the important part to us – although we’re glad to take that money – but it’s the guidance that the state will give us and the people they will have working with us.

From these accounts, and from this school’s annual report card, it is clear that test scores are a major issue of concern for this school. Within this context the school has sought solutions to this problem. The PRJ curriculum with the online SOLO component is one of the solutions that the school administration has identified.

SOLO, however, was not the only online reading intervention used by students who underperformed on tests. In fact, Ms. Anderson’s students frequently could not gain access to the computer laboratory because other online reading interventions were being used. Ms. Anderson, explained:

It was difficult to gain access to the computer labs, as reading interventions for students who scored below average on their AIMSWeb tests were given priority to use the labs. They used a program called Reading Plus. After intervention classes sign up, a calendar is posted in the teacher's lounge for the rest of the classes to sign up to use them.
Ms. Anderson’s students’ online activity was disrupted because of this system. They were often unable to access the computer laboratory at the time when it would have been most appropriate to complete the SOLO portion of their work, as suggested within the PRJ teachers’ manual. Although students were supposed to complete one out of every five lessons within SOLO (i.e. use the program once a week), often they only used SOLO once within a two-week period.

**Online Activity Severely Restricted the Roles and Literate Identities Available to Students**

In the SOLO online environment, the roles and literate identities available to students were severely restricted. Students listened, read, and responded. They were not given opportunities to initiate their own literate activity, nor were they able to compose on topics or write for purposes of their choosing. From an examination of the students’ work, it was difficult to learn anything about individual students. Instead, the learning software company, school personnel, and government policies constructed the literate identities of these students as struggling or at-risk. Below is an example from the company’s website showing the discourse of “struggling students” and “struggling readers,” a discourse that is prevalent there.

![A Continuum of Interventions for Your Struggling Students](image)

*Figure 4.37. A screen capture from the Voyager website showing the discourse of “struggling students.”*

Other examples are seen throughout the videos and text on the company’s website. For instance, in a video capture titled, “Get the Results You Need,” the tagline reads, “Learn how Passport Reading Journeys supports struggling readers…” Similarly, in a section titled, “How it Works,”
the description states: “Passport Reading Journeys provides a blended reading intervention solution of print and technology for struggling middle and high school students.”

In interviews Ms. Anderson also talked about her students in the mandated class as struggling. For instance, when talking about Dinari she said:

Dinari struggles with his writing—but he likes to write. In class this is the third day in a row I’ve had to take something he was writing on his own away from him—’cause he likes to write lyrics, I think it is. And he writes about like emotional things and deeper things than a lot of the 8th graders would. I feel like they’re not very surface level things. But he has a hard time with academic writing. And, in my opinion, he has some writing deficits. His spelling is very poor and his grammar is very below grade level. He doesn’t have a huge vocabulary. He knows some words, like to hear them, but he doesn’t really know what they mean—so sometimes he’ll use words in the wrong places. And he doesn’t like to write academically because he doesn’t have a lot of confidence in it.

Although Ms. Anderson uses terms such as “struggles,” “hard time,” “deficits,” and “very poor” when referring to Dinari, she makes a distinction between Dinari’s academic writing and his other writing, which she regards as deep compared to a lot of 8th graders. There is, however, no legitimate space for Dinari’s personal writing within the class—either online or offline—and very little opportunity for him to improve his academic writing.

Ms. Anderson continues by expressing the opinion that Dinari does not know the severity of his deficits. She provides the following example, detailing the difficulty he has copying and doing the “assignment that has been assigned to him”:

Like today, he had a hard time. We were writing down word for—, like words from the book—writing down quotes, and he was still changing them. And I explained it to him
over and over; you need to just copy it. But he had a hard time copying it. And he had a hard time understanding-, he had a-, he had a hard time understanding like what-, when to use words in the book and when to come up with your own ideas. So he-, I don’t think he necessarily understands the purpose for different writing tasks either. Because sometimes he’ll want to write about things, because I think he knows answers. And he’ll want to talk about it and write about things. But he has a hard time actually doing the writing assignment that’s been assigned to him, and doing exactly what he’s supposed to do with it.

The literate identity that Dinari constructs for himself is, however, very different. He talks about the stories that he writes at home and how he falls asleep with his notebook in his hand. He says, “I love my friends and all of my friends are family. But I’m smarter than them…my mindset is farther than theirs physically and mentally.” He explains that his friends and sister don’t get his writing, but that his mom and other grownups get it when he reads it to them.

When asked what he’d like to write about in eighth grade, Dinari said he would like to write a story called, “Now or Never.” This story will be about him. As the main character, he is “short and everybody is taller than him”—just like Dinari and his peers. The story is about “him breaking barriers and getting past the bad things in life and going somewhere with his schoolwork,” he explains. The bad things, according to him, are “like bullying, fighting.” He continues, “My mom’s heart failure.” There are, however, no opportunities for Dinari to write this story in school. The “legitimate” writing that he completes in the classroom is restricted to his workbook or to responses to readings from his PRJ student anthology.
Toward the end of the school year Dinari did, however, share one of his songs with me. One day I noticed that he was furtively writing something on paper under his workbook. His eyes darted back and forth, to check that the teacher was not watching, before he passed it to me at my request. He allowed me to photograph his work before I returned it to him (see the figure below). For an unfamiliar reader, his writing presents some challenges. Many spellings do not conform to standard orthography, and he uses only the occasional comma. Instead, his writing is punctuated by its rhyme. It is powerful and playful.

In my translation below I have deliberately made some changes (i.e. altered spellings, added commas, and inserted a few words) to discourage the reader from focusing on his “academic deficits.” I apologize for my possible distortion of his words, but unfortunately I did not have the chance to hear his interpretation.

He begins, “I can be the one to tell you…but instead, I’m [going to] shine the light.” He continues:

…turn off all the oxygen and hold my breath ‘cause spitting death to all the haters that can’t hear the rest... like school, homework is nothing but a test, steady anorexic ‘cause I’m having problems with my chest, I’m blessed, It’s stress, too young to be feeling like I’m dead, uh, the user is sick you gone really need the meds, uh, life is just like [a] cage until you find your key and then the lock is out of range, It’s strange listen [to] me, well my game just sped up, uh, so if you didn’t understand then your fed up, my head up, it feels like I’m stranded my UFO just landed”
His lyrics should be performed; so much of their power is lost on the page. Hopefully, however, these words give a sense of what I came to understand about Dinari over the course of the year: he is a complex, literate individual who defies labels that mark him as deficient.

**Chapter Summary and Conclusion**

When the class with the mandated curriculum visited the computer laboratory they used **SOLO**, an online component of *Passport Reading Journeys*, the reading program mandated for these students. In the **SOLO** environment, literacy learning was presented as applying strategies,
answering multiple-choice questions, and increasing reading speed; writing was scarce and insubstantial; and activity was silent and solo with no opportunity for peer interaction. The intended object of the students’ activity, as stated by the company that marketed SOLO and the district administration, was to improve students’ reading; however, the way in which the students interacted with the environment suggested that task completion was a primary goal for students. Although the teacher, the students, and I (the researcher) were the only ones that were physically present within the computer lab, activity within this space was also mediated by a number of other actors, including administrators, those involved in developing the program, and policy makers. Students’ online literate activity was influenced by the ideologies of didactic and remedial education, which were embedded within the online program and the associated offline curriculum that had been put in place by the district in response to accountability policies. Within the online program, the teacher was positioned as a supervisor with the role of redirecting the students’ attention to the screen and managing errant behavior. The online program instructed and tested, taking on the role of knowledge transmitter. In turn, students were positioned as passive receivers who listened, read, and responded. They were provided with limited opportunities for constructing their own literate identities and were instead regarded as struggling readers.
CHAPTER 5

THE CLASS WITHOUT A MANDATED CURRICULUM

In this chapter, I outline the findings from Ms. Anderson’s class without the mandated curriculum. The chapter’s organization parallels the previous chapter. The class is introduced with a vignette and a brief description of the online environment that they used. Then, in the body of the chapter I describe the nature of students’ online activity in detail, articulating three main findings: (1) online activity focused on writing – students typed drafts, provided feedback, and made textual changes; (2) online activity was considerably influenced by offline mediators – in particular, teacher initiating texts and computer lab access, which was restricted because of administrative decisions made in response to accountability policies; and (3) online activity made more roles and literate identities available to these students than in the mandated class, but these roles and literate identities were still significantly restricted. Finally, the chapter concludes with a summary of findings from this class.

The Class without the Mandated Curriculum and Scholar

Ms. Anderson stands holding her classroom door open as the students from her class with the mandated curriculum exit the room and the students from her class without the mandated curriculum begin to enter. There is also an established warm-up routine for these students. They collect their writing journals from a table at the front of the classroom and sit down at their desks. Ms. Anderson directs their attention to the Smart Board at the front of the room where two images are displayed. The students are then timed for 10 minutes while they write in silence about one of the images. When a student is seen gazing out of the window or pausing momentarily, Ms. Anderson interjects, “I want to see you writing all of the time.” Towards the end of the allotted time Ms. Anderson adds, “forty-five seconds. Make sure you
have at least ten sentences.” When the ten minutes is up Ms. Anderson chooses a couple of
students to read their work aloud, and then the warm-up routine is complete.

Next, Ms. Anderson asks the students to get out their VFW essay outline packets. She
explains that today they will begin typing their essays using the program Scholar, which she told
them about earlier in the week. She passes out yellow post-it notes and instructs the students to
write down the user name and password that she provides. “Line up quietly,” she tells them.
“We are going to the seventh grade lab.” (Later Ms. Anderson explains to me that the eighth
grade lab was booked, once again, but that she managed to find an opening in the seventh grade
schedule.)

When the students are sitting in front of computer screens, Ms. Anderson instructs them
to open a web browser. Then with a squeaky marker she writes http://cgscholar.com on the
board and tells the students to enter the address. “Don’t do anything else once you get there,”
she instructs, and then adds, “If your neighbor needs help you can help them get there.” After a
few moments Ms. Anderson says, “If you are on the right site, your screen should look like
Dayton’s projected up here.” Ms. Anderson circulates around the room and helps a few students
until everyone has the login screen, shown below, in front of them.

Figure 5.1. The Scholar login page.
The students are then instructed to type in their usernames and passwords from their yellow post-it notes and to sign in. Ms. Anderson tells them to accept and continue and then asks them, “Does everyone’s screen look like Dayton’s now?” Within the chorus of yeses a few no’s are audible. The students are reminded to check the password and Ms. Anderson helps a couple of students until everyone is logged in.

After logging in, the students see the Community page. Ms. Anderson tells the students, “This is a really cool part of Scholar this year, but we are not going to be using it yet.” She explains to the students that before they use Community someone is going to come work with her to show her how to use it. She then tells them, “What you are going to do is work with Creator because you are like the author. You are creating a work. You can’t work in Publisher because I am your Publisher. I am your teacher.” As instructed the students click on Creator and Ms. Anderson demonstrates to the students how to navigate to the assigned work, the VFW essay.

“Whenever you have an assignment” she tells them, “you will have a rubric there, so you can see what it is that you are being graded on so you can make sure that you have met all of your requirements. It will also be a good spot for you to help your friends when they have questions or when you review their work.” The students are instructed to go to click on the feedback bar and told to look at the review criteria. “Criteria is like your rubric,” she tells them, “...It is what I am grading you on. For this essay, because we haven’t practiced writing any essays yet it is pretty basic. I’m grading you on your format. That means does it match your outline format? Do you have all those paragraphs? Do you have them in the right order? Underneath it is content. Content means are you actually answering the question that you are supposed to answer? Does it seem like you know – that you have researched the kind of topics that you are writing about? And then your third criteria is your spelling and grammar. I want
you to proofread this. Make sure there is not a bunch of misspelled words. Make sure there is not a bunch of grammatical errors. You want complete sentences.”

Ms. Anderson asks the students if they have any questions. None of the students raise their hands. “As you are typing keep the review criteria open to remind yourself. If you click on the criteria because you have a question, it will tell you how you get the most points. It will tell you what will give you a zero, a one, or a two—and you obviously want the two. Make sense?”

Ms. Anderson then instructs the students to get out their VFW outlines and to begin typing their essays. The students type for about ten minutes before the bell signals the end of the period. This class has a split schedule. They have a language arts session period 4 and then another period 7. They return after lunch to continue typing their essays. (Computer lab observation, 10/3/12)

For the rest of the school year when students in this class visited the computer laboratory – in blocks of two or three days across a week, interspersed with extended periods with no computer lab use – it was almost exclusively to use Scholar. Scholar, as explained on the website cgscholar.com, “is a digital learning platform that supports students’ academic mastery of writing and transforms the patterns of interaction in learning.” The online environment is based on seven key learning principles, as shown in the figure below. The language used within the Scholar environment (e.g., creator, collaborator, publisher, community) is deliberately different from the language traditionally employed in schools. This language – and the design of this online space in general – is intended to connect students to the outside world of publishing, and to provide more opportunities for lateral (peer-to-peer) learning.
At the time of this study Scholar was comprised of three central applications: Publisher, Creator, and Community. In Publisher, teachers enter their writing assignments and review criteria, select how to set up reviews (e.g., how many reviews each student should complete, if reviews will be anonymous or not), and deadlines for the entire writing process. As students work over time, teachers can review progress of the whole class. After a number of projects have been completed, teachers can also look specifically at the participation and revisions of individual students. Publisher allows teachers to input assignments, manage peer response, and gather data at the student- and class-levels.

Figure 5.2. Seven principles for learning and assessment from http://newlearningonline.com.
The *Creator* application includes a composing space where text, images, and video can be combined to create multimodal compositions. It also includes a panel that displays review criteria to the left of the composing space, so that the creator can view these criteria as they work. In addition, the feedback component of the *Creator* application, allows other collaborators, which might include peers and teachers, to provide feedback. Some feedback is structured by the review criteria in the form of comments and a numerical rating provided by collaborators for each of the review criteria; other feedback may also be given using an annotation tool, which allows collaborators to highlight and comment on specific parts of the creator’s composition.
Figure 5.4. Scholar’s Creator application.

Community, the third application included in the Scholar writing environment, is similar in design to social media spaces such as Facebook. This application is intended as a space where different learning communities can discuss and share ideas.

Figure 5.5. Scholar’s Community application.

When asked why she uses Scholar with her students, Ms. Anderson replied:
I feel that writing in the online environment significantly increases student engagement, is beneficial practice in terms of the use of technology, … makes collaborating in the writing process much easier and more fun, makes keeping track of student work easier for the students and myself, creates a nice portfolio of student work, and allows students to access their assignments anywhere which is really beneficial as we switch labs often and have poor attendance rates. I feel that students take more pride in their work when we use Scholar.

In the following three sections—Online Activity Focused on Writing; Online Activity was Considerably Influenced by Offline Mediators; and Online Activity Made Several Roles Available to Students—I provide a description of the nature of student activity within and beyond the Scholar online environment. In order to provide a detailed and coherent account, the examples presented are all from one student, Lúcia, a Latina female.

**Online Activity Focused on Writing**

A primary finding was that online activity for this class focused on writing. Students used the online environment, Scholar, to type drafts, provide peer feedback, and make textual changes. Online writing was presented as a process that involved multiple stages and took place over several sessions. This process, however, was shaped – and often disrupted – by mediators outside of the online environment. The offline mediators that influenced online writing will be discussed in the next section. First, in this section I will provide an account of the students’ online work. I will introduce the writing projects that they worked on in Scholar, describe their online writing processes, and discuss their use – and lack of use – of the various components of Scholar.
**Writing projects.** The students in this class used the Scholar online environment to work on three writing projects over the course of the academic year – A Veterans of Foreign Wars (VFW) essay contest, a science fiction story, and an argumentative essay.

**VFW essay contest.** For this assignment, the Veterans of Foreign Wars (VFW) annual essay contest, the students were asked to write an essay in response to the following question: “What would you discuss with our forefathers?”

![VFW Essay Entry](image)

Students spent four days in the computer lab working on this assignment: two sessions to conduct online research, two sessions to type their first version, one session to write peer review
comments, and one session to read the comments and revise their work. The screen capture above shows Lúcia’s completed VFW essay. The essay is comprised of five paragraphs, an introductory paragraph, a paragraph about immigration, a paragraph about education, a paragraph about health, and a closing paragraph. While other students discussed different topics, their completed essays all followed this same five-paragraph format.

**Science fiction story.** For the science fiction narrative project students were told to “create a science fiction narrative typical of Vonnegut’s writing style. It should have a likeable protagonist, an unlikable antagonist, and an atypical ending in which the antagonist wins.” For this project the students worked in the computer lab for six sessions that were split across three weeks. Ms. Anderson planned for students to spend three sessions typing a draft, a session completing peer reviews and peer annotations, a session revising, and a session adding pictures. The amount of time that students spent engaged in these activities varied. For instance, some students spent more time drafting and less time writing peer reviews; some students spent more time looking for pictures and less time revising. In addition, some students – including Lúcia – reported working online on their projects outside of classroom time. Lúcia’s completed essay, *The Time Machine Fail*, is divided by section headings: exposition, rising action, climax, falling action, and resolution. In addition to the text her completed work also contains two pictures. The addition of section headings and images was also common to the other students’ narrative stories.
Argumentative essay. The students also spent six online sessions working on “an argumentative essay taking a stance on whether or not a mythical creature, legend, or phenomenon is real or just a hoax.” The first three of these sessions were spent searching online for evidence; then, students were provided with two sessions for drafting, a session for peer review and annotations, and a session for revising. Although some students completed self-annotations, none of the students wrote peer reviews or annotations for this project. Lúcia’s final essay, *The Truth about Poltergeist*, consisted of four paragraphs. Her first paragraph includes a
statement of her position, “Well, in my opinion, I do think poltergeist are real;” in her second paragraph she provides some evidence to support her claim, including a photograph; in her third paragraph she provides evidence for the counter-claim; and she uses her final paragraph for “wrapping up” her paragraphs and restating her claim. In between her third and fourth paragraph, she also includes a web link, as shown in the screen capture below. The web links to a site that shows videos of what the website author claims are poltergeists in action.

Figure 5.8. The third and last paragraph of Lúcia’s argumentative essay, showing a web link in between the two paragraphs.

The other students in the class also organized their essays in a similar way. Of the students who finished the work, most had four or five paragraphs following the same format as Lúcia. When students had five paragraphs the extra paragraph was usually an additional paragraph supporting their thesis. The majority of students also included images and links to videos to support their claims.

**Online writing as a process.** Ms. Anderson set up each of the three writing projects with the *Project Wizard* in Scholar. Using a series of screens she was guided to provide a description of the project and due dates for different components, such as draft, completed work, and
publishing. She also entered the number of peer reviews that students would be assigned and the dates that these reviews were due. For each of the projects she assigned two peer reviews. The *Project Wizard* facilitated the setting up of a writing project as a process, where students moved through a series of stages to complete a writing project. These projects were not one-off writing tasks – like the majority of the students’ offline writing that I observed in this class – but instead involved multi-step processes that took place over several days or weeks. The main online activities that were observed were researching, drafting, providing feedback, and making textual changes. In addition, students were observed adding images and web links to their writing.

**Researching.** The students engaged in online research for two of their three writing projects – the VFW essay contest and the argumentative essay. My observations indicate that this research primarily consisted of Google searches. For instance, when researching about immigration for her VFW essay, Lúcia typed, “Did they have immigration in 1700?” into the Google search box. From the search results, she chose the first link that took her to a Wikipedia page on the history of immigration to the United States. After scanning this site, Lúcia wrote the following sentence as her “attention grabber” on her planning sheet, “Did you know immigration has been going on since the 1790s?” Although the date 1790s is visible in a couple of the headings on the page, from my observations it appears that she did little more than scroll up and down the page and scan the text. Similarly many of the other students had difficulty researching online. The students tended to use very general search terms, such as “immigration, politics, or sport,” and moved from one link to another without critically examining text. Often their searches would pull up something that interested them but that was not relevant to the task. For instance, when Ben found a page about Hillbilly golf, he spent at least ten minutes looking at this information and sharing it with his friend that was sitting next to him until Ms. Anderson
overheard them and question, “Why are you talking about Hillbilly golf? Sam then moved on but, like many of the students, he did not appear to know how to use the time given for online researching. Ms. Anderson told the students, “Keep researching-- the more you understand the better your essay will be;” however, she did not give the students specific guidance about how to research online.

**Drafting.** For each of the three projects, students’ first use of Scholar was for typing a draft of their assignment. They typed their draft in the workspace on the left side of the screen, while the review criteria for their writing assignment was visible on the right side of the screen. The screen capture below shows Lúcia’s opening paragraph for her argumentative essay (left) and the review criteria for the essay’s introduction (right). Although the review criteria were visible – or easily accessible – while students typed, it is difficult to say whether students paid attention to these review criteria at the drafting stage of the writing process. Students could scroll down through the review criteria to see the different criteria as they worked. My observations, however, indicate that students’ attention tended to remain focused on the left side of the screen. When students were working on a latter part of the essay they sometimes still had the introduction review criteria showing rather than scrolling down to see other criteria relevant to the part of the essay that they were working on.
Figure 5.9. A screen capture showing Lúcia’s drafting in Scholar.

For the VFW assignment, Lúcia’s first version in Scholar looks very similar to her final version. The work is structured in five paragraphs and all of her main ideas are present. For the science fiction story, the section structure is present in the first version but there are no images in this version. Finally, in the argumentative essay, the paragraph structure, image, and web link are present in the first version.

Providing feedback. In addition to creating their own compositions, students also provided feedback for peers and on one occasion provided self-feedback. The students used the review tool and the annotation tool within Scholar to respond to writing. For the VFW essay students wrote peer reviews; for the science fiction narrative students wrote peer reviews and annotations; and for the argumentative essay, students annotated their own work.
For the VFW assignment Lúcia completed two peer reviews – one for Daniel and the other for Jason. Each review was organized by three categories – Format, Content, and Spelling/Grammar. Lúcia wrote the following for Daniel’s review:

Format: You should add explanation to the introduction on why you want to discuss these three topics to them. But other than that it looks great!:

Content: It’s awesome but you should work on explaining more like the percentages of soldiers.

Spelling and Grammar: Your spelling needs some fixing though. It’s great but it needs a little bit more work. The sentences are good and complete and your capitalizations are also nice.

Her feedback is typical of the peer feedback provided for this assignment. It is short and contains many positive but general comments such as “it looks great,” and “it’s awesome.” Like many of her peers, however, she does attempt to provide some specific direction for improvement, such as her comment about the introduction and the idea about adding percentages. Lúcia’s comments suggest that she is attempting to balance critical feedback with positive feedback. This was also something that was evident within many peer reviews. Her review for Jason contains fewer positive comments. He only receives, “it does look awesome” – but other than that it is similar in length and content to the other comments.

For the Science Fiction assignment Lúcia completed one review and one set of annotations for her peer Brian. Her review, shown in green below, is more extensive than the reviews she gave for the VFW essays. This is partly because the review involves more criteria
(six as opposed to three) but also because many of her comments are longer in this review.


Figure 5.10. Lúcia’s review of Brian’s science fiction story.

In this review Lúcia also tends to offset critical comments with the use of positive feedback. For instance, for the first criterion she suggests replacing some of the beginning because it is confusing, but then adds, “Otherwise, I really like the names like destructor, Steve, and Steven.” Similarly, for the second criterion, Setting, she suggests “explain the setting better”
and provide an example of how the author might do this. She then adds, “But you did a good job at explaining the years he went to.” Other comments are clearly more critical: “You didn’t organize the plot structure that well. You only have a story that is interesting but it’s not well organized” and “It is a good story and all. But it seems like you rushed into it and you need more description to the story.” Another feature of Lúcia’s feedback, which is present in 4 out of 6 of the review criteria, is that she provides an example in addition to providing a general comment. For instance for the last criterion, Resolution, she writes: “The ending needs more explanation. Like could you describe what happened a little bit more. Like the boogey party. What happened after, may you can explain they’re reactions.” This type of feedback was not typical for the VFW assignment, where generally students provided general requests, such as “add more” or “explain more.” This type of feedback, however, does appear more frequently across the class data set for the Science Fiction assignment than for the previous assignments.

Lúcia also provided Brian with two annotations. The figure below shows the text that Lúcia highlighted and the comments that she provided. In Lúcia’s first annotation she tells Brian, “There are some things that are repeated twice.” In her second annotation, Lúcia provides a positive comment and explains why she likes a certain part of the story. Her limited use of the annotation tools was not typical of her peers. The majority of students provided 5 or more annotation comments for peers. Her review, however, was longer than most of the other students, so it is likely that she spent more time on her review leaving less time for annotations.
Lúcia did not author any peer reviews or annotations for the third Scholar writing project, the argumentative essay. This was also true for all of the other students. Like the majority of the other students, however, she did self-annotate her essay. Lúcia created eleven annotations serving four different purposes. In 5 of the annotations she prompts herself to “re-think ideas” providing explanations such as “the sentence doesn’t really make sense” and “sounds confusing.” In two of the annotations she prompts herself to delete unnecessary words and phrases; for instance, she highlights the question “Do the camera’s lie” and then suggests that she delete the sentence. In addition, Lúcia suggests three spelling changes for words that are not spelled with conventional orthography and changes to punctuation because “the period is too close the next words.”
Annotations

A1: Who knows if someone just wants to play with our minds.
   - IDEAS: Re-think ideas - why?: The sentence doesn’t really make sense

A2: Poltergeist
   - SPELLING: Check spelling - suggestion?: Wrong spelling

A3: In the following sections, description of its environment, description of appearance, description of behavior, description of how the legend began, evidence negating the creatures existence, and lastly, evidence supporting the creatures existence.
   - IDEAS: Re-think ideas - why?: Sounds confusing

A4: My next paragraph will be about my claim Poltergeist are real to me.
   - PUNCTUATION: Check punctuation - suggestion?: The period is too close to the next word

A5: Many things that can sometimes be unexplainable. Things happen for a reason–Always!
   - IDEAS: Re-think ideas - why?: Change the sentence

A6: Yes, there is a disconnectioin. But sometimes when people see things, they don’t always have a rapid eye movement. Sometimes people see an object literally moving while they are just standing there but still.
   - IDEAS: Re-think ideas - why?: Rewrite the sentence in a different way

A7: But sometimes when people see things, they don’t always have a rapid eye movement. Sometimes people see an object literally moving while they are just standing there but still.
   - UNNECESSARY: Delete Unnecessary words and phrases - why?: The sentence sounds weird

A8: Do the cameras lie?
   - UNNECESSARY: Delete Unnecessary words and phrases - why?: delete “the”

A9: Yes.
   - SPELLING: Check spelling - suggestion?: I used the wrong word

A10: Things happen for a reason, nothing happens just for happening for nothing.
   - IDEAS: Re-think ideas - why?: Different sentence

A11: around
   - SPELLING: Check spelling - suggestion?: Spelled wrong

Figure 5.12. Lúcia’s self-annotations of her argumentative essay.
Revising in respond to feedback: After receiving feedback the students also made textual changes within the online environment. Students added, deleted and substituted at the word, phrase, and sentence level. The most common change was adding sentences or phrases. Substituting words was also common. The figures below, provided by the Scholar Dashboard tool, show the difference between Lúcia’s first and second versions for each of the three writing projects. For the VFW essay, the tool indicated that Lúcia changed her text 4.42%. The original length of her work was 558 words and this length was changed to 545, showing that she removed text from her original draft. The text in red that has a line through it indicates that she deleted the sentence, “I think that our forefathers should have had or someone should make a law where there is no racism.” Lúcia also added a phrase and made a couple of word level changes but the revisions that she made online for this work are minimal. Revisions for the rest of the class
ranged from 0% to 20.4%. The amount of revision made by Lúcia was typical for the rest of the class for this project.

Lúcia’s revisions for her science fiction project were more extensive. The Dashboard tool indicates that there was a 24.34% change between her first version and her second version. The original length of her story was 1,435 words and this was increased to 1,757 words. As the extract below shows, the revisions that Lúcia made were also more substantive. Her original story opening read, “Xavier is a 27, year old man, Xavier never had his real parents, he lived basically his whole life in the streets showing of his mental ability of intelligence.” While her opening in her second version reads, “I was sitting in the street writing about my life on a notebook I got for my birthday. It started out like this, ‘Hi my name is Xavier and I am a 27 year old man, I never had my real parents, and I lived basically my whole life in the streets showing of my mental ability of intelligence.’” She has made a major change choosing to narrate the story in the first person. Lúcia, however, does not make this change consistently throughout her text, so her writing switches from first to third person. Throughout the rest of the text Lúcia made changes at the word, phrase, and sentence level including additions, deletions, and substitutions. Although there were a few students who only made minor changes, such as adding punctuation or changing spelling, for this project most students completed more substantive revisions.
From a percentage perspective Lúcia’s revisions for her argumentative essay were similar to her science fiction narrative. The Dashboard tool indicated that there was a 24.23% change between versions (consistent with her 24.34% in her science fiction narrative). But while Lúcia did add some sentences in the first paragraph the majority of her changes were deletions. Her essay was originally 869 words and the final version was reduced to 806 words. Lúcia’s most extensive addition is in the first paragraph where she adds four sentences explaining the differences between ghosts and poltergeists. Her deletions are primarily her first person organizational sentences, such as those beginning “In the following sections I will…” and “My next paragraph will be about…” Lúcia also deletes a couple of questions from within her text.
Adding images and web links. In two of the writing projects – the science fiction narrative and the argumentative essay – students were provided with the opportunity to add pictures to their text. In the argumentative essay students also added web links to videos and other supporting evidence. For the science fiction narrative project, images were added at the end of the project when the text was completed. Many of these images, such as Lúcia’s shown below, appeared to be added after completing the story and were not an integral part of the composition.
In contrast, the images and links that Lúcia and other students added to their argumentative essay were integrated into the writing process and served a much more important function, as they were used as evidence to support the argument.

Figure 5.16. Images from Lúcia’s science fiction story.

Figure 5.17. The image Lúcia included in her argumentative essay.
Online activity as solo and silent. Through the use of the review and annotation feedback mechanisms, the students engaged in peer interaction. Despite this feedback, however, the students’ online activity was predominately solo and silent. Similar to the mandated class the students were not encouraged to talk in the computer lab. The set up of the lab – the same lab that the mandated class used – also better served independent work. When students did talk to peers Ms. Anderson tended to redirect them back to their own work.

At the end of February when students had completed their argumentative essay, Ms. Anderson provided a computer lab session specifically for the purpose of allowing students time to set up their profile page in the Community component of the online environment. Although the majority of the students did complete their Community profiles, the students never had the opportunity to use the Community space to interact with others; nor did they have the chance to share comments, files, or their completed compositions in this space. The affordances of Community designed to increase interaction and collaboration where therefore never exploited – and no other online spaces were used for students to publish or share their work with their peers or a wider audience.

Online Activity was Significantly Influenced by Offline Mediators

The section above outlines the writing activity that students engaged in while working online. Offline mediators, however, heavily influenced this activity. In this section, I discuss the major mediators that were evident in this class, including, access to the computer laboratory, the teacher’s initiating texts, and peer feedback. I show how these mediators trace to students’ online literate activity – in both productive and disruptive ways.

Access to the computer laboratory. Similar to the class with the mandated curriculum, the online activity of the students in this class was also influenced by administrative decisions
that were made within the wider policy context. As explained in the previous chapter, computer
lab access was prioritized for online reading interventions. This policy made it impossible for Ms.
Anderson to rely on consistent access to the lab over an extended period of time. Consequently,
Ms. Anderson delayed beginning projects, the projects were disrupted while in process, and
intended projects never occurred.

At the beginning of the school year the students did complete drafts, reviews, and
revisions of their VFW assignment within Scholar. This was a short project that Ms. Anderson
used to familiarize the students with Scholar. Their other two Scholar projects, however, were
severely disrupted by access to the computer laboratory. Ms. Anderson delayed starting the
science fiction project for three weeks because she could not book the computer lab. Due to the
delay the project ended up taking place just before the holiday break when pre-holiday activities
were also vying for class time. The argumentative essay project was also disrupted because of
lack of access. Although Ms. Anderson assigned peer reviews for this project, she decided to
excuse her students from this work, as time was limited within the lab. Instead, those students
who had any spare time or access out of school were encouraged to do self-reviews. While
students completed their drafts in Scholar (unless they were absent) for all three projects, the
later stages of the writing process – such as peer review and revision – tended to be rushed or
missed completely mostly because of limited access. Ms. Anderson also decided not to attempt
other projects – including a joint writing project that she had planned with the science teacher –
because of the difficulty of obtaining computer lab access.

Another access issue related to the number of computers within the lab. If all students
were present, there were not enough computers for students to have an individual computer. This
was not usually an issue because on any given day a couple of students were usually absent.
However, I did observe the occasional session when this became a problem such as when the students first went into the computer lab to type their science fiction stories. Ms. Anderson noted that this problem had arisen when several students, including Tanisha had been moved from the class with the mandated curriculum to the class without the mandated curriculum.

Access was not just an issue at school. Scholar – like SOLO – was designed to be accessible 24/7. Ms. Anderson told the students, “The great thing about Scholar is that you can type in here anywhere that you have Internet access, so you can work in the lab when we have class, you can work on your tenth hour teachers’ computers, you could potentially use one of my laptops in the classroom, you can type from at home if you have the Internet, you can go to a library and work on it. So, it is much, much easier than just using Word in here and then having to finish it in here after school. It makes it much more available for you.” Despite this increased accessibility, however, Ms. Anderson told me that she was reluctant to require students to do work within Scholar out of school because she knew that not all of her students had Internet access at home. Lúcia, for instance, did not have home access – although she told me that she had completed work in Scholar at a friend’s house. Other students told me that they only accessed the Internet from their phones out of school but in order for Scholar to operate effectively, students needed computer access and an up-to-date web browser.

The teacher’s initiating texts. The initiating texts provided by the teacher often considerably influenced the students’ online writing. Even before the students began typing in Scholar much of the structure and content of their writing was shaped by these texts. This was true for all three assignments. For instance, for the VFW assignment, Ms. Anderson required the students to complete two different planning sheets before working online. On the first sheet – “What would you discuss with our forefathers?” the students wrote a list of possible topics then
narrowed their choice down to three topics. Lúcia chose *Immigration, Education, and Health Issues*. These three topics later became the topics of each of the three body paragraphs in her online essay. Similarly, the three ideas about each topic were also presented in the body paragraphs.

![Image of planning sheet](image)

**Figure 5.18.** Lúcia’s “What would you discuss with our forefathers?” planning sheet.

Ms. Anderson also gave each student an outline packet for the VFW essay. This packet contained five pages. Each page provided students with a space to plan a different part of the essay: page one, introduction; page two, body paragraph one; page three, body paragraph two; page four, body paragraph three; and page five, conclusion. Each of these pages was divided into sections with a heading and space for students to write. On the introduction page Ms. Anderson provided three prompts titled, *Attention Getter, Background Information, and Thesis*. After each of the titles she provided an explanation in parenthesis. For the attention getter students were prompted to write an “interesting fact, question, etc. Lúcia writes, “Did you know that immigration has been going since the 1790’s!?” Lúcia transferred this question verbatim, including the exclamation point and question mark, when working in the online environment.
The question becomes her second sentence in her first paragraph. After the Background Information heading, Ms. Anderson’s explanation reads: “Why would our forefathers be interested in the status of the United States today?” A large part of Ms. Anderson’s sentence – “our forefathers would be interested in the status of the United States” – appears in Lúcia’s first paragraph. For the thesis prompt Ms. Anderson provided a model sentence for the students: “If I had the chance to talk to my country’s forefathers, I would discuss_____, _____, and ____.” On the planning sheet Lúcia used the exact wording provided by Ms. Anderson and then added her three topics. When she typed it up the wording was different but the basic structure and ideas remained the same: “I honestly think they would be interested in immigration, education, and lastly, health issues.” There were a few of Lúcia’s ideas for her introduction that did not make it from the outline sheet to the Scholar version of her work. For instance, the sentence “Slavery and racism is basically the same as immigration” did not make it from the outline sheet to the final version of the online essay; however, much of the offline work that Lúcia completed was transferred online.

![Figure 5.19. The first page of the five-page planning packet with Lúcia’s ideas.](image)
Similarly, this was true for the other four outline pages. On the three body pages, Ms. Anderson provided students with a space to write a topic sentence, the topic that would be discussed; then, spaces for three details about the topic; and finally, a concluding statement that answered the question, “Why is this an important topic to discuss with our forefathers?” This was the basic structure that Lúcia used for each of her body paragraphs in her online essay. She transferred several sentences verbatim from her body pages in her outline packet and almost all the ideas present in her offline outline were present within her online essay. On the conclusion page, she was instructed to restate the thesis and was told to use the “exact same sentence as in your introduction.” Although she wrote the exact same sentence on her planning sheet, she did not use this sentence again in her final essay. Lúcia, however, transferred the other two sections of this page (summary of main points and concluding statement), almost verbatim into the online environment.

For the science fiction narrative, students were required to complete a plot structure before they began working on the computers. The plot structure was organized according to five headings – exposition, rising action, climax, falling action, and resolutions. These headings later became the section headings within Scholar.
Ms. Anderson was strict about students completing their plot structure before working in Scholar. When each student sat in front of a computer ready to begin work on the science fiction story, Ms. Anderson instructed, “Raise your hand if you have not completed your plot structure.” When several students raised their hands, they were switched away from computers and other students with completed plot structures took their places. Ms. Anderson then asked, “Has anybody else not finished their plot structure?” She continued, “Before you work in Scholar you need to have your plot structure. Anybody else? If I see that you are not using one you are going to be in trouble, so raise your hand if you haven’t done it?” When a student asked, “What if you left it?” Ms. Anderson replied, “Then you need to write it out real quick. You were suppose to do one on paper and turn it in. If you did not do your prewriting, you cannot do your initial draft yet, so if you do not have your plot structure in front of you you need to write one out.” After a few
more moments Ms. Anderson added, “If you are not done with your plot structure you need to minimize Scholar and write it out.”

Although Ms. Anderson intended the plot structure to be helpful to students, for many it appeared to be just something that they needed to complete before they could write their story in Scholar. Several other students had difficulty transferring the plot structure to Scholar. For instance, Ms. Anderson told Ben, “You’re turning it into a narrative, so you’re not typing just what is on your plot structure; you need to expand to create a story. Does that make sense?” Later Tanisha has this same issue. She pointed at her plot structure and asked Ms. Anderson, “I can just start from here?” Ms. Anderson replied, “These are your ideas but you need to turn it into a story with dialogue – it needs to have more detail. This is just the outline of your story. After a few minutes Ms. Anderson returned to Tanisha’s side. She told Tanisha, “So what you are doing is just copying information. It needs to be an actual story. So you start from the beginning of the story. How do we meet Jimmy? What is he doing? Is Jimmy sitting in his house? Do we have any information about Jimmy? Do we have a conversation? It is like the beginning of a novel. Don’t tell me about the characters. The characters need to be doing something…Don’t just list information at the beginning, start with actual actions.” As Ms. Anderson walked away, Tanisha deleted the three or four sentences that she had already typed and began to type a new story opening. When I asked Tanisha about why she made the changes to her opening, she replied, “Because she told me that I should start with action.”

The review criteria that Ms. Anderson used for each of the writing projects also played a role in shaping students’ online activity both in terms of their compositions and feedback. Ms. Anderson directed students’ attention to the review criteria that she had inputted. For instance, when students opened up Scholar to begin drafting their science fiction story, Ms. Anderson told
them, “In order to see what you need to include in your story and how you are being graded you need to click on the feedback bar in Scholar.” She continued, “There are a lot of categories. This is what I am looking at when I grade you. The first part is the beginning what I want you to do right now is read the description for the beginning.” After some confusion because several students did not see the review categories since they were in the wrong document, Ms. Anderson continued, “That tells you what is supposed to be there but it also tells you how to get a good grade, so under where it says beginning in orange it says rating zero to 3, click on that. From me you will get a score a zero, a one, a two, or a three. And you can see how you are going to get a zero, one, two, or three, so glance through that.” Ms. Anderson then led the students to look through next review criteria setting. After this she asked the students, “What grade do you want to get?” Some of the students chorus the word, “Three.” Ms. Anderson repeated the question, presumably because she did not hear all voices responding. This time she asked, “Everybody what grade do you want to get?” and this time there is a louder chorus of the word, “three.” She then told the students to “take a minute to scroll through all your review criteria so you can see your goals for this essay. There are eight different review criteria, as shown below, and each has four descriptors from 0-4.

Although the students later used these criteria for providing peer feedback, Ms. Anderson introduced the criteria as “how you are being graded,” which she also did with the VFW essay, the first assignment completed in Scholar. Ms. Anderson’s focus was on how students could get a good grade rather than how they could use the review criteria to help improve work and provide feedback for peers.
An examination of the students’ peer feedback indicates a strong relationship between the feedback and the teacher’s review criteria. The students’ feedback comments almost always align with the topic of the review criteria. So when the review criterion was about the beginning of the story, the students’ comments were about the beginning of the story, and when the review criterion was about setting, the students’ comments were about setting. This fact indicates that the topic of the teacher’s review criteria strongly influenced the topic of the students’ review comments.

Peer feedback. An important feature of the Scholar online environment was that it facilitated peer feedback in the form of reviews and annotations. As mentioned above, this feedback process was curtailed at times by access to the computer laboratory. This, however,
was not the only way online peer feedback was influenced by offline factors. Ms. Anderson reported that the students were resistant to completing peer response tasks. In December when the students were working on the science fiction story project I received an email from Ms. Anderson containing the following message:

![Image](image.jpg)

After explaining to Ms. Anderson not to worry about my research, I reminded her that the week before the winter break was always a difficult time and to do whatever she thought best. When I returned after the break, Ms. Anderson told me that after talking with the students about the importance of peer review, she had required that her students write about this responsibility. Lúcia, wrote:

If I don't complete my part it Scholar it can affect other people. If I don't do my part then it can make them not be able to get their work done, which can cost them a grade. It really does affect other people. Also, if I don't do my part in Scholar you are basically not giving them any advice and their story might have needed improvement and with that information then their story might have been real good.

Similarly, other students wrote about how not completing peer reviews would affect other people, particularly in terms of their grades. I cannot state exactly why some of the students did not want to work on their peer reviews, but I do know that they were inexperienced providing peer reviews and that their work – like most schoolwork – was rewarded with individual grades. One
student mentioned to me that he did not want to “judge” other students’ work and another told me that he simply wanted to get his story done before reading other people’s work.

On other occasions students expressed positive opinions about peer review. For instance, Lúcia told me, “I feel like it helps… I like hearing a different person’s point of view, and Tanisha said that she liked the reviews because she learned about how people felt about her story. Despite Ms. Anderson’s concerns, almost all of the students did complete at least one peer review for the science fiction project and over half of the students completed two peer reviews. There is also evidence that many of the students acted on comments provided by their peers when making revisions. For instance, several textual changes within Lúcia’s final essay traced to comments made by her peers. In her first version Lúcia wrote, “Xavier would probably be one of the most intelligent people you’d ever meet.” After Amy annotated this sentence and suggested, “Use the word ‘person,’” Lúcia changed the sentence so that it read, “Xavier would probably be the most intelligent person you’d ever meet.” Lúcia also acted on Ben’s annotation of the sentence, “What do you mean!? IM YOUR BEST FRIEND!” When Ben commented, “Really no reason for all caps in this sentence because the man isn’t yelling he’s asking a question,” Lúcia changed the sentence so that it read, “What do you mean!? I’m Jay, your best friend.” Other more substantive revisions also appear to connect to peer feedback. For instance, in his review under the criterion beginning Ben told Lúcia, “Need to enhance it and explain more with details,” and under the criterion, character, he told her, “the character never really changed. He was the same person at the end, no emotional connections. Need to describe the character and his characteristics.” After reading these comments Lúcia made substantial changes to the beginning of her story and also made several additions about the main character throughout her text. Similarly, revisions from other students traced to feedback.
from their peers. These changes occurred most frequently at the word and sentences level, but more substantive changes were also evident.

Although here I discuss peer feedback within this section on how offline mediators influenced online activity, the distinction between offline and online mediators is blurry. While peer feedback was obviously influenced by factors beyond the online environment it was also influenced by mechanisms embedded within the online environment. Similarly, the teacher’s assignment and review criteria also became embedded within the online space. Considering which mediators are offline and which are online, however, is far less important than recognizing that students’ online activity was influenced by a wide range of factors and that these factors influenced their online activity in many different ways. These points will be extrapolated in the discussion within the next chapter.

**Online Activity Made Several Roles and Literate Identities Available to Students**

In the *Scholar* online environment several roles and literate identities were available to students. Students were positioned as creators who composed, provided feedback, made textual changes, and added images and web links. The language within *Scholar* – from the name of the environment to the titles within it (e.g., creator, contributor) – sought to elevate the position of students and connect them to a community of learners. Students were not, however, given the opportunity to initiate their own writing projects, nor were they given the opportunity to publish their work and interact with their peers within the *Community* space. In consequence, roles and identities that might have been made available were not accessible.

When describing Lúcia, Ms. Anderson stated, “she’s very ‘by the book.’ …She wants to do exactly what she’s supposed to do. …It’s never really outside the box in any way. But I think that might just be part of her personality. She’s very shy but she’s very structured and does
exactly what she’s asked all the time.” Although Ms. Anderson postulates that Lúcia doing what she is asked to do “might just be part of her personality,” it is also evident that this strategy has been successful for Lúcia in terms of school. She is in the honors society and she always gets good grades. There is much about Lúcia, however, that cannot be discerned from her online writing activity. Lúcia primarily spoke Spanish at home. She said, “I’m kind of helping my family learn English when I speak English to them.” She stated, however, she was not particularly confident about writing. She preferred math and science and would like to be a doctor. When she could choose her own writing topics, she said she was more confident. Her preference was to write about sports and nature. In particular, she mentioned tornados and volcanoes as topics that she would like to write about. Like her peers, Lúcia, however, was not given the opportunities to choose her topics and initiate her own online writing activity.

Chapter Summary and Conclusion

When the class without the mandated curriculum visited the computer laboratory they used the Scholar online writing environment. The students in this class typed drafts, provided peer feedback, and made textual changes. They also completed some online research connected to two of their projects. Students were positioned as creators and contributors. They were, however, provided limited opportunities to initiate and structure their own writing activity. While the Scholar online environment was designed to promote a new agenda for learning and assessment based around seven learning principles, students’ online activity was significantly influenced by offline mediators. In particular, the teacher’s initiating texts played a major role in mediating students’ online activity. These texts, including assignment guidelines, worksheets, and rubrics, shaped much of the structure and content of students’ writing before students entered the online space. Although the students’ compositions contained some images, their
work tended to focus on form rather than function, and most of their essays were in the ubiquitous five-paragraph format. The class norms that centered on individual tasks and grades created some tensions when peer response was introduced. Perhaps most disruptive of all, however, was the restricted access to the computer lab, which was the result of the administrations decisions to prioritize computer time for online reading interventions – a decision related to the school’s accountability measures. Consequently, students’ activity within Scholar was limited. They spent a small proportion of their instructional time within the environment and almost all of this time was spent within the Creator component of Scholar. Beyond setting up their initial profiles, the Community component of Scholar, which provided a space for students to develop their literate identities, and to interact as part of an academic community, was not a part of the students’ online experience.
CHAPTER 6

DISCUSSION AND IMPLICATIONS

This dissertation examined students’ online literate activity in two language arts classes— one with a mandated curriculum and one without a mandated curriculum—that were taught by the same teacher in a Midwestern U.S. junior high school with a diverse and low-income population. The schools’ curriculum had been impacted by accountability policies. Using ethnographic methods and a CHAT framework, I worked to illuminate the nature of students’ online literate activity, including various mediators. The situated accounts I provided in Chapters 4 and 5 highlight that mediators operating within the school and classrooms’ settings significantly influenced the nature of students’ online literate activity and the literate identities available to students. This dissertation makes visible the importance of attending to these mediators if online learning environments are to promote more expansive and equitable literacy learning for all students.

This chapter begins with a summary of the findings from the two classes. I then discuss these findings while focusing on three central issues: ideologies of literacy and learning embedded within the online environments, school tools and rules as mediators of literate activity, and the influence of accountability policies. Following this, I argue for the necessity of research that takes account of offline mediators that influence students’ online activity, and I provide implications for practice. I then outline the limitations of the study and propose a future research agenda. Finally, I conclude by reasserting the necessity of attending to offline mediators operating in schools, so that online environments might contribute to learning premised on broader and more equitable definitions of literacy.
Summary of Findings

The nature of online activity in the two classes was very different. In the class with the mandated curriculum, students’ online activity focused on reading. Students were directed through a series of screens and expected to listen, read, and respond to prompts. Through animations, on-screen text, and aural input, they received explicit strategy instruction. Students also practiced and were tested with multiple-choice questions on their application of these strategies to information texts. In addition, their reading speed was regularly tested. Within this online environment, opportunities for writing were rare and any writing that students did complete was insubstantial and directly connected to reading tasks. In comparison, students’ online activity in the class without the mandated curriculum focused on writing. Students were assigned three writing tasks: a Veterans of Foreign Wars competition essay, a science fiction story, and an argumentative essay. Connected to two of these projects, students conducted some online research, which primarily involved searching with Google and scanning the pages that were linked as the top results. Students engaged in a linear writing process, involving drafting, providing peer feedback, and making textual changes. The compositions that they produced were predominately five-paragraph essays with a few added images.

Offline mediators significantly influenced online activity in both classes. In the class with the mandated curriculum, the online environment was a component of the mandated reading program; perhaps unsurprisingly, many of the ideologies from the offline materials were embedded in the online program. These ideologies not only included the content of what was taught (e.g., highly structured strategies, fluency, and test skills), but also the ways in which this content was to be taught (e.g., through didactic instruction, multiple-choice testing, and isolated skills practice). Working within an accountability policy context, the administration had
mandated this reading curriculum and the accompanying online program. Yet, the administration also prioritized the use of computer labs by other classes, which had been designated—because of their students’ lower scores on standardized literacy tests—to use an exclusively online reading intervention. In consequence, the teacher often found it difficult to align the offline and online components of the mandated curriculum, because the lab was frequently unavailable.

Access to the computer lab was even more of an issue for the class without the mandated curriculum. Because of lack of access to the computer lab, the teacher had to delay starting projects, and projects were cut short or disrupted while in process. In addition, planned projects, including a collaborative project with the science teacher, were canceled because of lack of availability of the computer lab. Despite these difficulties, the teacher chose to continue attempting to use the online writing environment with her students, or at least with the students in the class without the mandated curriculum because, as she explained, she valued the way it helped her students see writing as a process and a collaborative activity. Other teachers in the school, however, had stopped using this online writing environment two years prior to this study, because they did not think it was compatible with changes taking place in the school, in particular, citing the implementation of mandated reading curriculums. Ms. Anderson, then, was an important agent in providing access to this online writing environment for the students in the class without the mandated curriculum. Her initiating texts, however, did not always work in harmony with the ideologies of the online environment; they often significantly shaped the students’ texts prior to and during their online activity – often in ways that privileged form over function (e.g., the five-paragraph essay).

In each of these classes, which were taught by the same teacher in the same school, students’ online literate activity was influenced by a different configuration of mediators (i.e.
tools, rules, community, and divisions of labor) that gave students access to very different roles and literate identities. Students in the class with the mandated curriculum were primarily positioned as passive receivers and struggling learners in need of remediation. Conversely, students in the class without the mandated curriculum were positioned as producers who created drafts, provided feedback, and made changes to their texts. While students in the class without the mandated curriculum had access to more roles and literate identities than students in the class with the mandated curriculum, online activity in both classes was premised on definitions of literacy associated with traditional schooling and few opportunities were provided for students’ to draw on their existing identities or for the genesis of broader literate identities.

**Discussion**

CHAT in particular, and social cultural theory in general, provided rich resources for my thinking and action throughout this research project. In the write-up, however, I chose to foreground my data rather than the theoretical underpinnings that helped to produce these accounts of students’ online literate activity. In this section I make explicit several connections between CHAT and my work, and provide interpretations of my findings using CHAT and other related scholarship as a heuristic. While recognizing that the mediators within the students’ activity system operated together, I find it analytically useful to discuss these mediators around three central themes: embedded ideologies of literacy and schooling, school tools and rules as mediators of literate activity, and the influence of the accountability policy framework. I conclude this section with a holistic representation of students’ online activity in the two classes using Engeström’s (1987) activity system model, including a discussion of the contested nature of the object and outcome of activity and three central tensions: school versus students’
enactment of literacies; school versus Scholar’s tools and rules; and test scores versus literacy learning.

**Embedded Ideologies of Literacy and Schooling**

Both *SOLO* and *Scholar* were marketed as novel technologies: online learning environments. Both espoused less teacher-centered and more independent student activity. Online learning environments, however, are products of human activity. As such, different groups of human actors may embed very different ideologies of literacy and learning within these cultural tools. CHAT reminds us that learning environments do not appear out of nowhere; instead they are inseparably linked to mediational means, including ideologies of literacy, learning, and schooling that have deep historical roots (Wertsch, 1998). Here I attempt to unpack some of the ideologies of literacy and learning evident within *SOLO* and *Scholar*. This task is important because these ideologies are powerful mediators of students’ online literate activity; they shape the roles available to students and the possible outcomes of their activity.

In the *SOLO* environment students were provided with direct instruction by animated teen hosts through a series of animated presentations. While the instructor in this space may look different from the instructor found in a traditional classroom, this approach to education is familiar and has a long history. As students used *SOLO*, it was possible to observe many of the features of didactic education (Kalantzis & Cope, 2008). The scripts programmed into the computer environment took on the role of the teacher providing exposition. These scripts were the same for all students, assuming each child had the same background and culture. The scripts tended to present information as fact, and no opportunity was provided for the students to question these ideas. This approach resembles Freire’s (1970) “banking” concept of education. In *SOLO* the animation is Freire’s “narrating subject” and the students remain the “listening
objects;” the animation knows everything and the student knows nothing. The banking metaphor and the assumption of how little students bring to the instructional situation is clear in SOLO. Students were instructed to add new words that they had learned to their word bank, but only given the option of choosing words preselected within the design of the program. Students were provided with a tiny text box to add their background knowledge of a subject. They had no opportunity to question the animation, not even to ask for clarification. In this respect the talking/listening roles of the teacher/student were even more solidified in the SOLO environment than in the regular classroom.

In addition to the animation providing information for students in SOLO, embedded within SOLO I observed a common classroom discourse pattern: IRE, in which the teacher initiates, the student responds, and the teacher evaluates (Mehan, 1979). In SOLO, however, the software substituted for the teacher. The literacy learning application initiated, usually by asking a question; the student responded; and then the application evaluated the student’s response. The pattern was similar to IRE discourse in the classroom – there was usually an expected response from students. Students’ responses in SOLO, however, were even more restricted, as they were limited to multiple-choice answers. In addition, the application’s response was also limited to preprogrammed positive or negative responses. When the application initiated an activity that did not involve multiple-choice (e.g., when the program promotes a written response) the program was unable to provide feedback to the student. Thus the IRE discourse pattern within the SOLO environment was even more restrictive than this same pattern operating within a regular classroom situation. This discourse pattern positioned the application as the knowledge provider and evaluator and the student as a passive receiver.
Although *SOLO* was interactive in terms of the digital media-related definition of the term (i.e. an application responding to a user), the program did not afford any interaction between users. Animated teen hosts provided the illusion of a social component of the program, but these hosts were not able to respond to students other than in a preprogrammed fashion. *SOLO* did not allow for any peer-to-peer interaction. Inherent both within the name, “*SOLO,*” and the nature of the program was a focus on individual activity. This focus on students working in isolation to complete individual tasks devoid of any social purpose is problematic (Kalantzis & Cope, 2008; Gee, 2003). While online spaces are increasingly regarded as places where students can work collaboratively for real audiences and purposes, this online space did not afford students any of these opportunities.

*SOLO* was grounded not only in restricted notions of the nature of learning, but also in the nature of literacy. In *SOLO* the autonomous model of literacy was evident (Street, 2003). Literacy was presented as a series of isolated skills; it was assumed that learning these skills without connecting them to social practice would fundamentally change students’ learning and, hence, their future prospects. The primary purpose for students’ reading text passages was in order to answer a series of questions about them. In this way reading was disconnected from any purpose other than testing. Although it was possible that students’ online activity might produce the desired effect of raising test scores, this activity left students with an impoverished view of the meaning of literacy. In terms of the four-resource model of reading (Freebody, 1992; Freebody & Luke, 1990), only the first two (i.e. the ability to decode text and the ability to comprehend text) were addressed by *SOLO*. Reading speed was used as a proxy for fluency and meaning was regarded as having been derived entirely from the text rather than from an interaction between the reader and the text. The other two competencies of the four-resource
model (i.e. the ability to use text in functional ways to accomplish tasks and the ability to read and analyze texts critically, recognizing that texts are constructed and ideological) were not considered, except in that test taking is a functional task that students must learn in order to succeed within school.

The SOLO environment not only assumed particular ideas about literacy and learning, but it also made particular assumptions about the learners who used the program. The company that made SOLO (and the accompanying classroom curriculum) described it as a “literacy solution.” This “literacy solution,” which was intended for “struggling learners,” positioned students as deficient and in need of fixing. The idea that students who fail in school do so because of their own individual deficiencies is deeply entrenched in ideologies of schooling (Valencia, 1997). This idea continues to perpetuate the use of simple solutions to address complex issues. Students in SOLO were not given the opportunity to draw on their own linguistic competencies. Instead, their instruction was based on an ideology of remediation that emphasizes the technical dimensions of literacy divorced from social practice (Gutiérrez, Morales, Martinez, 2009).

In Scholar, different assumptions about the role of students (and the teacher) and the nature of literacy and learning were visible. In this space the language of the environment—“Scholar,” “Creator,” “Contributor,” “Community”—suggested that users were part of a collaborative academic group. The program is grounded in Kalantzis and Cope’s (2008) paradigm of transformative education. The idea of transformative education shifts discursive patterns away from the didactic approach, which privileges the teacher, toward lateral patterns of discourse, which engage students in communicating with others. This idea took shape in Scholar within the multiple avenues that were provided for students to interact, such as the Review tool, the Annotation tool, and—had they had the opportunity to use it—the Community space. These
mechanisms within Scholar were designed to support learning as a “community of practice” (Lave & Wenger, 1991). Unlike SOLO, a didactic approach to learning was not evident in Scholar. There was no built-in teacher who provided exposition. Instead, in the Creator space students were faced with a blank “page.” The environment did not provide the answers for students; instead, students had to reach beyond the space—to their own psychological resources or to other information sources—to find material for composing.

A comparison of the ideologies of literacy embedded within the design of these two online environments suggests very different conceptions of literacy and provides very different roles for students as they work within these spaces. Students using SOLO are presented with narrow representations of literacy and are assigned the role of passive receivers who move from screen to screen as directed by animated characters and prompts. In contrast, students using Scholar are expected to create and collaborate. The Scholar environment is far more open, and thus literate activity can be conceived of in many different ways within this space. This openness, however, makes Scholar far more susceptible to mediators beyond the online environment, and it is to this issue that I now turn my attention.

In this section I focused my discussion on the online learning environments that students used. Working from a CHAT perspective, however, I account for students’ online activity in terms of both the tool that they used and the other mediators that operated within the activity system. These mediators not only influenced students’ activity, but they also constituted the activity. In the following two sections I focus on the mediators that were particularly evident in my study.
School Tools and Rules as Mediators of Online Literate Activity

CHAT calls attention to the fact that a school’s tools and rules are a fundamental part of students’ activity. Schools are highly rule-bound places that are structured by cultural tools that have embedded within them cultural ideas and practices. These cultural tools include policies, teachers, classrooms, time, and texts. In consequence, it is essential to consider how school tools and rules operate within the broader configuration of mediators to shape students’ online activity. These tools and rules not only shaped the activity that students engaged in within each of the online learning environments, but the learning environments also shaped many of the ways that the school tools and rules operated. This was particularly true in the case of the teacher as a tool. The two different online environments dramatically changed the way that the teacher operated. From a CHAT perspective, then, it is unsurprising that many of the school tools and rules that were consistent between the two classes also operated differently within them.

When the students used SOLO, the teacher’s ability to influence students’ online activity was limited. The teacher took on the role of managing students’ behavior and ensuring that students’ attention remained focused on the screen. In this way, similar to the use of scripted curriculums in the classroom, the teacher’s influence was restricted. In the classroom, however, a teacher may enact a script in many different ways (Yoon, 2013). When students were working in SOLO, the teacher had virtually no control over the script provided to the students through the online environment. When the class with the mandated curriculum used the Passport Reading Journeys curriculum in the classroom, Ms. Anderson added some of her own priorities and personality by, for instance, adding extra writing assignments, organizing the students into collaborative learning groups, and making jokes with her students. When these same students were working within SOLO, she was unable to alter their online activity. Interestingly, while her
students were working independently, Ms. Anderson might have been able to use this time to teach individuals or small groups; instead, however, her time was frequently taken up performing one-on-one fluency assessments that were required for students in this class.

Although the teacher had limited agency to influence how students used SOLO, she had much more influence when it came to the Scholar environment. The teacher initiated all of the students’ writing projects in Scholar and directed their activity as they worked in the online space, deciding which components of the environment students would use and when they would use them. By examining the initiating texts that Ms. Anderson provided, such as assignment guidelines, planning sheets, and rubrics, it is possible to see how the teacher became a co-author in students’ writing (Prior, 1994; 1998) and how much of the students’ writing was shaped before they entered the online space. The teacher’s intention with these texts was to provide tools to help students as they approached various writing tasks. However, at times it is clear that these texts also became rules that constrained students’ writing, making it formulaic in nature. These texts also contained ideologies of school literacy that privileged form over function, including the ubiquitous five-paragraph essay. Consequently, even though students within the class without a mandated curriculum were working in an online environment that was deliberately designed to disrupt narrow definitions of literacy and traditional notions of schooling, these ideologies were transferred into the online space.

Many of the school tools and rules operating within the class without the mandated curriculum contained ideologies of literacy and learning that dramatically differed from those that the Scholar environment espoused. For instance, school mediators—such as assignments, grades, and rules about working independently and silently—privileged individual activity, whereas mediators within Scholar—such as the Review and Annotation tools (as well as the
Community space, which was only minimally used)—were specifically designed for collaborative activity. These differences created tensions between the online and offline activity in the class without the mandated curriculum. These tensions were particularly evident surrounding the practice of peer feedback. Unlike out-of-school settings where peer collaboration is often built into particular affinity spaces (Gee, 2004), the collaboration within Scholar was initiated and structured by the teacher. When students were working on their second assignment within Scholar, Ms. Anderson expressed a great deal of frustration, because she felt that students were not taking the task of peer review seriously. The students’ reaction is perhaps unsurprising. The students were given another task to complete without a corresponding shift within the culture of the classroom. Unfortunately, because students’ use of Scholar was so limited and their use of Community was almost non-existent, it is not possible to determine how their attitudes and practices might have changed over time if the collaborative roles of students had been normalized. In the case of Ms. Anderson, the lack of use of Community was likely related to two factors: the limited time available in the computer laboratory and the fact that Community was a new component of Scholar that she had not yet experienced herself. Given that time constraints are present within every classroom, however, it is important to consider which components of a particular online learning environment teachers choose to use and which they omit, as the uptake of some parts and not others may greatly influence the kinds of literate activity students engage in and the roles available to them.

In the class with the mandated curriculum, conversely, the school tools and rules operating offline were closely aligned with those within the SOLO environment. In terms of the topics and methods of instruction, there was little difference between the online and offline activity of these students, and in this class, then, there were few tensions between students’
online and offline activities. Although tension is frequently associated with problems, CHAT posits that tensions (or contradictions) are fundamental to transformation. From this view, the lack of tension within the class with the mandated curriculum may be regarded as problematic. No attempt at fundamentally changing students’ conception of literacy and learning had been made. Instead, the same ideologies of literacy and schooling that were operating offline were also operating online. Conversely, the tensions within the class without the mandated curriculum might be viewed positively, in that these tensions were the genesis of change within this class: moving literacy and learning away from a focus on individual activity toward a more collaborative approach.

**The Influence of the Accountability Framework**

The influence of the accountability framework in which the school was operating was as powerful a mediator of students’ online literate activity as the ideologies embedded within the online environments and the tools and rules within the classroom and school settings. Policy frameworks are often regarded as macro factors that operate at a societal level. In contrast, Cultural Historical Activity Theory (CHAT) posits that there is no clear distinction between the local/global or micro/macro environment. Decisions made at a societal level are part of the everyday activities of students and teachers in the classroom. In this study it is possible to see how students’ online literate activity traced to decisions made by the district in response to concerns over Adequate Yearly Progress (AYP). The effect of the accountability framework, however, was different for the two classes.

In the class with the mandated curriculum, the use of SOLO was part of the district’s broader decision to implement *Passport Reading Journeys (PRJ)*. Given the district’s pressure to raise test scores, it is perhaps unsurprising that administrators chose a program that aligned with
the narrow view of literacy evident within reading tests. This program was predominately an offline literacy solution. Consequently, students using PRJ were not given the same priority access to the computer laboratory as other students who were using Reading Plus, an exclusively online program used by students considered most in need of reading remediation. Computers within the lab were therefore most frequently used as tools for remediation and other uses of the computers, based on broader definitions of literacy and learning, were thus restricted. Students’ use of SOLO was also disrupted as Ms. Anderson was often unable to book the computer laboratory at the time when it would have been most appropriate for students to work in the online portion of the program. Although Ms. Anderson had hoped to use Scholar with students in this class, she did not have the opportunity, because she was constantly struggling to find time for the work that was mandated. In this situation, the use of Scholar was seen as an extra activity that students could do if they completed other necessary work. Two other language arts teachers within the school who had used Scholar in the 2010-2011 school year stopped using the program in the spring of 2011, because they did not feel that it was compatible with the reading curriculum mandated by the district that they would begin using in the fall.

As was the case with students in other studies that consider literacy instruction within the current accountability framework (Dooley & Assaf, 2009; Enright & Gilliland, 2011; McCaslin, 2006), it is evident that the students in this study had access to very different opportunities for literacy learning. This study contributes to and extends previous findings, as the two groups of students within this study were in the same school, taught by the same teacher, and both engaged in online literate activity. While increasing Internet access for students is promoted as a means to create more equitable opportunities, this study confirms the need to consider online access in complex ways. As Warschauer (2006) stated, “the real threat of the digital divide in the
US is not that some people will have computers and some won’t, but that they will be enabled to use them in entirely different ways, with one group able to muster a wide range of semiotic tools and resources to persuade, argue, analyse, critique and interpret, and another group, lacking these semiotic skills, limited to prepackaged choices” (p. 164).

Within the current accountability framework, students’ literacy outcomes in terms of test scores are privileged in research and policy. Significantly, even from the narrow perspective of outcomes as test scores the school’s report card does not indicate reading test score gains since the mandated curriculums were introduced in the 2011-12 school year. A CHAT perspective, however, provides a much wider view of the concept of “outcomes.” Test scores and writing products may be examples of students’ literacy outcomes, but focusing on these outcomes alone can lead to the neglect of long-term objectives. CHAT posits that students develop not only artifacts and skills through activity, but also identities and consciousness (Sannino, Daniels, & Gutiérrez, 2009). In other words, the activities that children engage in determine the boundaries of their potential development. Consider this point concerning the students in the class with the mandated curriculum: The online—and offline—literate activity available to students was limited. Through these activities the students had virtually no opportunity to develop a sense of self as literate individuals. Instead, accountability policies, the school administration, and the online environment defined them as “failing students” and “struggling learners.” Of course, it could be argued that these students first needed to learn basic skills. There are, however, several problems with this commonly voiced assertion: basic skills are culturally defined (Dyson, 2013); basic skills are best learned within the context of engaging activity (Gee, 2003); and students, particularly those from non-dominant communities, learn these culturally defined skills best when they are also given access to their own rich “funds of knowledge” (i.e. “their historically
accumulated and culturally developed bodies of knowledge and skills”) (Moll, Amanti, Neff, & Gonzalez, 1992, p. 133). Even in the class without the mandated curriculum, students’ online literate activity was limited. In consequence, the outcomes of activity in both classes were also limited.

A Holistic Representation of Students’ Online Literate Activity

A linear document, such as a dissertation, necessitates that discussion proceeds in a clear and ordered sequence. Human activity, however, is far less ordered. The mediators discussed individually do not operate alone but as part of a complex system interconnected with other complex systems. One benefit of CHAT is that it provides a series of conceptual tools for describing complex activity (Nardi, 1996). In addition, Engeström’s (1987) activity system model provides a way to visually represent activity – blurring the boundaries of factors often dichotomized, such as macro/micro, global/local, and/or social/individual.

Figure 6.1. An activity system analysis representation of students’ online activity in the two classes.
Drawing on Engeström’s model, the diagram above provides a synthesis of my findings and interpretations of students’ online literate activity in the two classes. This model contains the central mediators evident to the researcher (me) in the two classes – the tools, rules, and divisions of labor, as well as the community members both physically present within the room and those that fundamentally influenced classroom activity. Of course, other mediators were operating within these spaces; those shown, however, were the ones I found most salient within the data. Significantly, many mediators were not particularly apparent within the data and therefore are not represented in the diagram, for instance, discourses of inquiry (e.g., student generated topics of investigation, extended classroom discussions), models of disciplinary compositions and practices (e.g., texts or multimodal materials used to serve a genuinely persuasive function, examples of how and why particular texts are generated), and students’ expertise or “funds of knowledge” in any number of areas not known or barely visible to the researcher or teacher – perhaps oral story telling or debating, fishing or tracking, acting or video production (Moll, Amanti, Neff, & Gonzalez, 1992).

**Object and outcome.** The visual representation highlights the contested nature of the object and outcome of students’ activity. While one might assume that literacy learning is the object of a language arts class, the nature of this literacy learning might take many forms, as seen in these two classes. Indeed, literacy learning, for many actors within the system, may be only a peripheral object – or not an object at all. Other objects (e.g., completing a task, obtaining a grade, gaining graduation points, meeting AYP) may be central. Similarly, the outcomes of students’ activity are not clear. Although it may be possible to identify some outcomes (e.g., an essay, a certificate of completion, a multiple-choice test score), other outcomes – many that I would argue are much more important – are far more difficult to discern (e.g., an understanding
of how and why various texts are constructed; an ability to critically engage with multimodal sources; an understanding of how and when to employ different semiotic tools; and literate identities premised on academic and social competence that allow for broad participation in society.)

**Tensions.** The diagram also draws attention to three central tensions or contradictions: school versus students’ enactment of literacies; school versus Scholar’s tools and rules; and test scores versus literacy learning. A good deal of tension was evident between the school and the students’ enactment of literacies. For instance, as in Dyson’s research (1997; 2003), Dinari and Lúcia – and many of the other students – drew on popular culture texts and practices, which were not regarded as components of official classroom activity. Unlike Dyson’s kindergarteners, however, the students in this study found limited opportunities for these unofficial literacies in the classroom. While it may not be beneficial or appropriate to co-opt adolescents’ popular literacies for school activity, there are many features of their unofficial literacies that schools might draw on for improving literacy education (e.g., performativity; situated meaning; embodied, active, and social learning) (Gee, 2003). Through such practices students might build academic literacies in order to obtain access to institutions and practices of power (e.g., universities, governments, professional positions).

Tensions also existed between the school versus Scholar’s tools and rules. The tools embedded within Scholar, such as the Review and Annotation tools, and the Community space, were designed to promote collaborative inquiry. The tools (e.g., teacher’s initiating texts and classroom discourse) and rules (e.g., work silently and independently, face the screen, follow teacher directions) employed within the classroom often promoted individual and teacher-directed activity. Similarly, Scholar was equipped for multimodal meaning making but the
cultural norms of students’ online activity centered firmly on text. While students did add images, this was generally an extra once the writing was complete. The students did not appear to be critically considering how various multimodal components might operate together to create specific meanings. Also problematic, the Scholar online environment was premised on the idea of “anywhere, anytime” learning. Unfortunately, students’ access to computers was highly restricted, which significantly curtailed their activity.

Another contradiction within the activity system was between students’ test scores and students’ literacy learning. Ostensibly, the purpose of language arts classes was for students to learn literacy. Test scores, however, were also a primary concern at this school – and quite legitimately so, as test scores may influence many important factors, including schools losing funding, teachers losing their jobs, and schools being designated as “failing.” It was apparent that Ms. Anderson clearly cared about the students and wanted them to succeed in school, it was also clear that tests and other accountability measures were a reality within the school that promoted key decisions that influenced students’ activity – often in ways that conflicted with the schools’ stated responsibility: “instruct, model, and encourage the importance of reading and life-long learning.”

**Implications**

In coming years students will increasingly use online learning environments as part of their everyday activity in schools. While this prospect is almost inevitable, it is far from clear that online environments will promote broader and more equitable definitions of literacy for all students. As illustrated by this dissertation, a wide range of mediators may influence students’ online literate activity. If online learning environments are to promote educational reform premised on re-mediation (i.e. fundamentally changing the learning ecologies of students) rather
than remediation (i.e. attempting to fix students’ “deficiencies”), then the design, implementation, and use of online learning environments need to be considered alongside more expansive educational reforms (Cole & Griffin, 1983; Gutiérrez, Morales, & Martinez, 2009).

Educational reforms must involve asking and finding answers to a complex range of questions, including the following: What ideologies of literacy are embedded within online environments? What roles and literate identities do particular online environments make available to students? How is literacy as a social activity supported within online environments? How is the role of the teacher changed when students work online? How do the mediators embedded within schools influence—disrupt, shape, and support—students’ online literate activity? From the standpoint of educational equity of utmost concern is the issue of how we can ensure that, when working online, students from non-dominant communities are afforded the opportunity to draw on their own literate identities while also building literate identities privileged in the academy.

Instead of changing one component of a student’s educational environment (e.g., moving activity online), it is essential that changes take place in multiple areas: the design of online environments, the professional development of teachers, the bureaucracy of educational institutions, the broadening of definitions of literate activity in schools, and the corresponding recognition of students’ broad literate repertoires. Unfortunately, this multilayered approach to educational reform is not supported by the current policy context. Instead, accountability policies are grounded in simple measures of students’ (and teachers’) achievement. Without attention to a broad range of mediators, the transformative potential of online learning environments for many students will almost certainly be lost.
This study supports the necessity of looking well beyond issues of connectivity when considering students’ equitable online access. Although the government’s ConnectED initiative (2013) promises within five years to “connect 99 percent of America’s students to the digital age through next-generation broadband and high-speed wireless in their schools and library,” (http://whitehouse.gov, n.d.) there is little reason to trust that accomplishing this task will provide equitable opportunities for students. In fact, as seen in this study, narrow ideologies of literacy and learning are easily transferred online, and online environments that are more open are easily co-opted by mediators embedded within educational institutions. Because students from non-dominant communities are more likely to be designated as low-performing in terms of school literacy, these students are also more likely to be assigned to use online programs that operate from a paradigm of remediation that draws on narrow conceptions of literacy. These programs and the infrastructure necessary to support their use also tend to be very expensive. This fact prompts a genuine concern that schools, particularly those serving low-income communities, may divert funds away from other areas—such as teacher employment and professional development—to pay for online environments that offer “literacy solutions” based on narrow definitions of literacy and deficit perspectives of students. Broad and diverse forms of literacy will not be found in software solutions that are either turn-key, taking over for teachers, or business-as-usual, implementing didactic pedagogies online. They will necessitate that teachers design new, student-centered experiences in which learners are asked to initiate authentic inquiries, engage one another socially, and negotiate consciously between the literacies of home and school. Luke and Elkins (2000) have urged, “It is vital that we not get talked into the enticing proposition that there is a method that will ‘solve’ the problems of adolescent literacy and illiteracy. Learning to live together in this century is going to require that we turn
diversity and complexity into productive resources. And by definition there won’t be a single right way to do it” (p. 398).

**Limitations of the Study**

In this research project, I considered the notion of *students’ online literate activity* as a holistic unit, using the heuristic of an activity system to frame my analysis. This framework enabled me to illuminate a wider range of mediators that influenced students’ online literate activity than I would have been able to do if, for instance, I had studied students’ de-contextualized online literacy artifacts or if I had studied students solely when they were working online in the computer laboratory. The study has several important implications, but its design also has a number of limitations.

Here I outline three areas to which I was unable to devote sufficient attention, given the complex demands of the CHAT method: students’ reading activity, students’ psychological tools, and students’ social and cultural histories.

**Students’ Reading Activity**

This study began as an inquiry into students’ online writing activity. From the outset I attempted to connect students’ online writing activity to their classroom activity more broadly. However, my focus throughout much of the study was on students’ writing. It was not until six months into my study that I realized that students within the class with the mandated curriculum were unlikely to use Scholar or engage in writing online. At this point, I decided to broaden my study to examine the online reading environment that students were using within this class. Because this decision was made so far into the study, I missed collecting valuable data that would have helped me to better understand their online activity.
Students’ Psychological Tools

In this study I considered many technical tools that mediated students’ online literate activity. Inevitably, however, the psychological tools that students brought to the activity were also important mediators. Although I had planned to use think-aloud protocols and text-based interviews to attempt to illuminate some of these psychological tools, I found these approaches hard to implement for several reasons: students’ difficulty articulating their thought processes, the quiet nature of the classroom when students were working, and the limited time available to interview students (their only break was the forty-minute lunch period). Consequently, I was able to trace students’ activity to other mediators, but I did not draw out the thinking behind their actions.

Students’ Social and Cultural Histories

Related to students’ psychological tools were the ways in which their thinking was mediated through their social and cultural histories and the histories of their families and communities. The surveys that students completed and the interviews that students participated in were inadequate as a means to get at these histories. Their literate activity traces beyond classroom walls and computer lab screens. I would like to have done much more to gain a better understanding of these individuals and their literate activity. For instance, I would like to have observed them in other classroom settings, collected information about their online and offline literate activity outside of school, interviewed their family members, and followed them into high school. Even with the existing information I had about my focal participants, however, I came to regard each of them as highly literate individuals. So, while I recognized that many features within my students’ literacy artifacts would mark them as deficient when applying the narrow definition of literacy frequently offered in school—and dominant in literacy testing—I
also found that these students prompted me to experience a sense of my own deficiency: My White middle-class British upbringing had done little to help me participate in and understand their many language communities and ethnicities, including Black and Latino English and Spanish as well as teen culture, media, and a wide range of other sociolinguistic identifications less obvious to me.

**Future Research**

With any ethnographic work it is inevitable that the wide variety of data collected will be inadequately represented in a single paper, even in an extended paper such as a dissertation. Consequently, I outline two research projects on which I plan to work with the data already collected, as well as one project for which I intend to collect new data.

**The Case of Ms. Anderson**

Although Ms. Anderson was a part of the students’ online literate activity in my study, my dissertation has focused on students as the primary subject. In my next project I intend to place Ms. Anderson at the center. I am interested in the ways that she used these online environments and her reasons for using them in these ways. I noticed some tensions between how she would have preferred to use Scholar and how she actually used the environment, and I would like to explore these issues further. Of particular interest is that Ms. Anderson no longer uses SOLO or the Passport Reading Journeys curriculum. Although the other language arts teachers in her school continue to use “ability”-grouped classes and scripted curricula with students who have been identified as working below grade level, Ms. Anderson requested and was allowed to trial mixed-ability classes. She now teaches three language arts classes and uses Scholar with all three classes. I believe her case of using Scholar offers an interesting view of tension and transformation over time.
The Case of Tanisha

During the course of my dissertation study, one of my focal students, Tanisha, moved from the class with the mandated curriculum to the class without the mandated curriculum. This transition completely changed the kinds of literate activities in which she engaged and the kinds of literate roles available to her. Although Tanisha was very happy to be “moving up” (she and the other students clearly understood the hierarchy of these groups), this move also created some tensions for her. I have copies of much of Tanisha’s work within the two classes, and I have a series of interviews with her. I believe her case is valuable because it reveals the differential access between the classes with the same teacher. It also demonstrates the complex issues involved in moving between classes designated by ability groups, which are a feature of the accountability policy context in many schools.

The Use of Collaborative Online Literacy Environments Over Time

In my dissertation study, the students did not get to use the Community space within Scholar. Even the work that they did within Creator was limited. In my future work I would like to investigate the school situated use of community-based online literacy environments over time, with their potential to change the ways in which students compose artifacts and form literate identities. I am also interested in how texts and discourses outside of these environments mediate online activity. In particular, I would like to investigate what these mediators might mean for individual students, especially students identified as “in need of remediation” according to standardized tests. What are the roles and literate identities available to students in classes that use these more socially engaged online environments? How do these roles and identities change over time?
**Conclusion**

This dissertation makes visible the mediators operating in two classes taught by the same teacher in a diverse and low-income school impacted by accountability policies, and it shows the powerful ways in which particular configurations of mediators significantly shaped students’ online literate activity. While this study focused on students’ online literate activity in two classes in one school, K-12 institutions across the country are increasingly employing online environments. These spaces may promote learning premised on broad definitions of literacy (e.g., critical inquiry, multimodal composing, collaborative learning). They may also advance learning based on narrow conceptions of literacy (e.g., isolated skills practice, multiple-choice questions, transmission of knowledge as rigid facts). Much depends on the embedded ideologies of literacy and learning and the broader instructional environment. Of particular concern, while some students may have access to online activity that will offer the development of a wide range of literate identities, other students’ online activity may be restricted by the identity of “struggling learner.” In conclusion, I reiterate the importance of attending to offline mediators and using online environments for re-mediating (transforming the mediators in students’ literacy learning environments) as opposed to remediating (attempting to fix students’ literacy “deficits”).
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# APPENDIX A

## PRE-INTERVIEW SURVEYS

### Student Writing Survey

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>*What is your first name?</td>
<td></td>
</tr>
<tr>
<td>*What is your last name?</td>
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</tr>
<tr>
<td>*What is your gender?</td>
<td>Male, Female</td>
</tr>
<tr>
<td>What race/ethnicity do you identify with?</td>
<td>Black, African American, White, Hispanic, Latino, Asian, Native American, Other (please specify)</td>
</tr>
<tr>
<td>*What period is your Language Arts Class?</td>
<td>Period 2-3, 4-5, 7-8</td>
</tr>
</tbody>
</table>
*Listed below are statements about writing. Read each statement carefully then check one response per line to show how much you agree or disagree with the statement in general. There are no right or wrong answers. Just try to answer as honestly as possible.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like to write.</td>
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<tr>
<td>Writing is easy for me.</td>
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<td>I think that I am a good writer.</td>
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<tr>
<td>People in my family would say that I am a good writer.</td>
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<tr>
<td>My teachers would say that I am a good writer.</td>
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<tr>
<td>My classmates would say that I am a good writer.</td>
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<tr>
<td>I enjoy reading my writing aloud to the rest of the class.</td>
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<tr>
<td>I only write when I have to write for school.</td>
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<tr>
<td>I find writing hard.</td>
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<td>When I write I feel frustrated.</td>
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<tr>
<td>Writing is one of my least favorite activities.</td>
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<tr>
<td>If possible, I usually avoid writing.</td>
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<td>I worry about completing writing work.</td>
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<tr>
<td>I never enjoy writing.</td>
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</tbody>
</table>

*Describe how confident you feel about the following:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not confident at all</th>
<th>Not particularly confident</th>
<th>Moderately confident</th>
<th>Confident</th>
<th>Very Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your writing ability in general</td>
<td></td>
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</tr>
<tr>
<td>Writing a paper that a teacher has assigned to you when you are given no choice about the topic</td>
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<tr>
<td>Writing a paper that a teacher has assigned to you when you are given a choice about the topic</td>
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<tr>
<td>Writing a paper for which you will be graded</td>
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<tr>
<td>Writing a paper for which you will not be graded</td>
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<tr>
<td>Writing a message to a friend</td>
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</table>

Student Writing Survey (continued)
*Do you think writing is important? Explain why or why not.

Do you always write in English? If no, what other languages do you write in?

*What language(s) do your family usually speak at home?

*When you get chance to choose what to write about, what kinds of things do you choose? Why?

*If you could choose who read your writing, who would you choose? Why?

*Describe the best piece of writing you have ever done. Why do you think this piece was your best? How did you feel about it?

*Describe the worst piece of writing your have ever done. Why do you think this piece was your worst? How did you feel about it?
*On one of the blank pages provided write a few words or sentences and draw a picture to describe how you generally feel in each of the following situations:

(a) When you are given a writing assignment.
(b) When you are given a writing test.

On the other blank page provided write a list and draw pictures to show all of the ways that you use writing outside of school.

In the box below write one word that best describes how you feel about writing.
## Feedback Survey

**What is your first name?**

**What is your last name?**

**What period is your Language Arts Class?**
- Period 2-3
- Period 4-6
- Period 7-8

**How frequently do you receive the following types of feedback on your writing?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written comments from teachers</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Verbal comments from teachers</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Grades from teachers</td>
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<td></td>
</tr>
<tr>
<td>Score on rubric from teachers</td>
<td></td>
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<tr>
<td>Written comments from peers</td>
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<tr>
<td>Verbal comments from peers</td>
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<tr>
<td>Score on rubric from peers</td>
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<tr>
<td>Written comments from parents</td>
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<tr>
<td>Verbal comments from parents</td>
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<tr>
<td>Self-evaluation</td>
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<tr>
<td>Other (please specify)</td>
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</tbody>
</table>
**How helpful do you find the following kinds of feedback?**

<table>
<thead>
<tr>
<th>Written comments from teachers</th>
<th>Very unhelpful</th>
<th>Not helpful</th>
<th>Neither helpful or unhappy</th>
<th>Helpful</th>
<th>Very helpful</th>
<th>I never receive this kind of feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal comments from teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades from teachers</td>
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<tr>
<td>Score on rubric from teachers</td>
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</tr>
<tr>
<td>Written comments from peers</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Verbal comments from peers</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Score on rubric from peers</td>
<td></td>
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</tr>
<tr>
<td>Written comments from parents</td>
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<tr>
<td>Verbal comments from parents</td>
<td></td>
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<td></td>
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<tr>
<td>Self-evaluation</td>
<td></td>
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</tr>
</tbody>
</table>

Comments (optional)

**In general, how comfortable would you feel about receiving feedback about writing in the following ways?**

<table>
<thead>
<tr>
<th>Written comments from teachers</th>
<th>Very uncomfortable</th>
<th>Uncomfortable</th>
<th>Neither comfortable or uncomfortable</th>
<th>Comfortable</th>
<th>Very Uncomfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal comments from teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades from teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score on rubric from teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written comments from peers</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Verbal comments from peers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments (optional)
**In general, how comfortable would you feel about giving feedback about writing in the following ways?**

<table>
<thead>
<tr>
<th></th>
<th>Very uncomfortable</th>
<th>Uncomfortable</th>
<th>Neither comfortable or uncomfortable</th>
<th>Comfortable</th>
<th>Very Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving spoken feedback to a peer required by a</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>teacher as part of an assignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving written feedback to a peer required by a</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>teacher as part of an assignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving spoken feedback to a friend or peer that</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>they have specifically requested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving written feedback to a friend or peer that</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>they have specifically requested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments (optional)

---

**Write an account of your best experience receiving feedback about your writing. As part of this account include answers to the following questions: Who gave the feedback? When and where did this happen? How did you receive the feedback? How did it make you feel?**

---

**Write an account of your worst experience receiving feedback about your writing. As part of this account include answers to the following questions: Who gave the feedback? When and where did this happen? How did you receive the feedback? How did it make you feel?**

---

Student Feedback Survey (continued)
Student Technology Survey

**Technology Survey**

**What is your first name?**

**What is your last name?**

**What period is your Language Arts Class?**
- Period 2-3
- Period 4-6
- Period 7-8

**How often do you use the following devices?**

<table>
<thead>
<tr>
<th>Device</th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>A school computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your own personal computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A shared family computer at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A computer at the public library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A computer at a friend's house</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A computer at a relative's house</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your cell phone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other device (please specify)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**How often do you write or post messages using the following applications?**

<table>
<thead>
<tr>
<th>Application</th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text message on cell phone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook or MySpace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YouTube</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Flickr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant Messaging (e.g. g-chat or IM)</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

What other applications do you use to write or post messages and how often do you use them?

**Describe how often you use the Internet for each of the following purposes:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and writing emails</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding information for school projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding information for personal use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching videos or television shows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downloading music or other media (e.g. videos, games)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting a social networking site (e.g. Facebook)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading or writing a blog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web design</td>
<td></td>
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</tr>
</tbody>
</table>

Please list any other ways in which you use the Internet and how frequently you use it for that purpose.

---

Student Technology Survey (continued)
## How frequently do you use the following digital technologies?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital camera</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Photo editing tools (e.g.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photoshop, iPhoto)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video camera</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Video editing tools (e.g.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movie Maker, iMovie)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation software</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(e.g. Powerpoint, Keynotes)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Podcasting</td>
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</tr>
</tbody>
</table>

**Do you prefer to type or hand write? Why?**


**How would you rate your keyboarding skills?**

- [ ] Poor
- [ ] Fair
- [ ] Good
- [ ] Excellent

**How would you rate your computer skills in general?**

- [ ] Poor
- [ ] Fair
- [ ] Good
- [ ] Excellent
# Teacher Survey

## TEACHER INFORMATION

1. Please enter your name.

   [Name field]

2. What is your gender?

   - [ ] Male
   - [ ] Female

3. What race/ethnicity do you identify with?

   - [ ] Black/African American
   - [ ] White/Caucasian
   - [ ] Hispanic/Latino
   - [ ] Asian/Asian American
   - [ ] Native American
   - Other (please specify)

4. Please indicate the highest level of education you have completed.

   - [ ] High School
   - [ ] Bachelors Degree
   - [ ] Masters Degree
   - [ ] Professional Degree
   - [ ] PhD
   - Other (please specify)

5. How many years, overall, have you been teaching?

   [Years field]

6. How many years have you been teaching at your current school?

   [Years field]
## TECHNOLOGY USE & ACCESS

7. How frequently do you write or post messages using the following applications?

<table>
<thead>
<tr>
<th>Application</th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text message on cell phone</td>
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<td></td>
</tr>
<tr>
<td>Twitter</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Facebook</td>
<td></td>
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<tr>
<td>MySpace</td>
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<tr>
<td>E-mail</td>
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<tr>
<td>Blog</td>
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<tr>
<td>Website</td>
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<tr>
<td>YouTube</td>
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<tr>
<td>Flickr</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Instant Messaging (e.g. g-chat, AOL, IM)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Other (please specify) or additional comments

---

8. Describe how frequently you use the Internet for each of the following purposes:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and writing e-mails</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding information for school projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding information for personal use</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching videos or television shows (e.g. Youtube, Hulu)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downloading music or other media (e.g. videos, games)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaming</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting a social networking site (e.g. Facebook, MySpace)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading or writing a blog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web design (e.g. Dreamweaver, SeaMonkey, Wordpress, Blogger)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other (please specify) or additional comments

---

Teacher Survey (continued)
9. What other applications (i.e. Excel, Inspiration) or web resources (i.e. google docs, wikipedia, www.readwritethink.org) do you frequently use?

Please list each application or web resource's name followed by a brief description of how you use it (i.e. lesson planning, presenting information to students, personal hobby etc.).

10. How frequently do you use the following digital technologies?

<table>
<thead>
<tr>
<th>Application</th>
<th>Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
<th>Multiple times per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital camera</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Photo editing tools (e.g., Photoshop)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Video camera</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Video editing tools (e.g., Movie Maker, iMovie)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Presentation software (e.g., PowerPoint or Prez)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Podcasting</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Other (please specify) or additional comments: 

Teacher Survey (continued)
### 11. How easy is it for you to access the following at your school:

<table>
<thead>
<tr>
<th>Item</th>
<th>Not available</th>
<th>Difficult to access</th>
<th>Moderate level of difficulty</th>
<th>Easy to access</th>
<th>Always available</th>
</tr>
</thead>
<tbody>
<tr>
<td>A projector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A smartboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A computer for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computers for student use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A digital camera for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital cameras for student use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo editing tools (e.g. Photoshop, iPhoto) for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo editing tools (e.g. Photoshop, iPhoto) for student use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A video camera for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video cameras for student use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video editing tools (e.g. Movie Maker or iMovie) for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video editing tools (e.g. Movie Maker or iMovie) for student use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation software (e.g. Keynote, Powerpoint) for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation software (e.g. Keynote, Powerpoint) for student use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podcasting software (e.g. Garage Band) for your use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podcasting software (e.g. Garage Band) for student use</td>
<td></td>
<td></td>
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</table>

Other (please specify) or additional comments:

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Teacher Survey (continued)
<table>
<thead>
<tr>
<th>12. How important do you think each of the following is in helping children learning to write?</th>
<th>Not Important</th>
<th>Somewhat Important</th>
<th>Important</th>
<th>Very Important</th>
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<tbody>
<tr>
<td>Teacher modeling</td>
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<tr>
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<tr>
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Teacher Survey (continued)
13. How frequently does the following occur in your classroom?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Occasionally</th>
<th>Weekly</th>
<th>Daily</th>
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Other (please specify) or additional comments

14. If there are differences between the way you want to teach writing and the way you actually teach writing, what factors do you believe account for these differences?

If no differences, type "None."
15. If you use peer review in the classroom, describe how you organize a typical peer review session. What do you observe as the benefits and difficulties with using this approach?
APPENDIX B

INTERVIEW PROTOCOLS

Student Post-Survey Interview

General Questions

I noticed that you answered __________ in your survey; please tell me more about this.

You said ______________ in your survey; please explain why.

You mentioned __________ in your survey; please talk to me about this.

Do you have anything else you want to say about the things that we have discuss today?

Writing

Tell me about the writing that you do outside of school.

Let’s talk about your most recent school writing assignment. Please tell me about it.

Feedback

Tell me more about your best/worst feedback experience.

Technology

Talk to me more about how you use the Internet

Tell me about how you use _______ (specific application or device)

................................................

Would you be prepared to allow me to interview several more times over the course of the school year?
Focal Student Interview

These questions will be asked over a series of short interviews. Not all questions will be asked to every participant, as some are worded in multiple ways to get at the same information.

Thank you for agreeing to talk with me today. I’m interested to learn more about your writing.

Questions about a specific writing assignment
- Tell me about the writing assignment that you are currently working on.
- How do you feel about this assignment?
- Tell me about the review criteria / rubric / how you will be graded.
- What do each of the categories in the rubric mean? Tell me about this category.
- If one of your friends were absent from school when your teacher gave out this assignment and you had to tell him/her what to do, what would you say? If you had to write a note or email to explain the assignment to them, what would you write?
- What would you tell him/her is most important about this assignment?
- What would you tell him/her about how to get a good grade on this assignment?
- What about the review criteria, how would you explain those?

Questions about a specific piece of writing
- Tell me about your writing...
- Why are you writing this piece?
- What is your writing about?
- Why/How did you choose the topic/character/title?
- Tell me more about this part.
- I noticed that you...
  o added/deleted a word/phrase/sentence/paragraph
  o changed your writing by ...
  o Tell me why you did that.
  o How might you do that differently?
- What are you pleased with about this writing?
- What do you think needs to be improved?
- Tell me about how you revised your work.
- I have a copy of one of your first/one of your earlier drafts and your current draft/final draft. I noticed that you made several changes. Let’s talk about these changes.
- What did you do here?
- Why did you make that change?
- Now that you have finished this piece of writing, how do you feel about it?
- How does this piece of writing compare to other pieces of writing that you have done?
Questions about peer response
Tell me about the comments that your peers gave you. (Try to get at issues relating to comfort level, process, value, and perceived helpfulness)

- Why did you do peer review?
- What did you do when you reviewed your peers’ work?
- How did you feel about giving feedback to your peers?
- Have you done peer review before? If so, tell me about an occasion when you have done peer review in the past.
- Let’s look at some of the comments you gave. Why did you write this?
- Let’s look at some of the comments you received. What do you think of this comment?

Questions about response from teachers and others

- Did anyone else read your work or give you feedback on your writing? If so, who, and what did he/she tell you?

Thank you for sharing your time to talk with me!
Teacher Post-Study Interview

Journeys & SOLO

- Did you receive any training for using Journeys and SOLO? If so, what did this involve?
- Tell me about your perceptions of the Journeys curriculum.
- Tell me specifically about your perceptions of SOLO.
- I believe SOLO provides the teacher with information about each student’s reading. What kind of information does it provide? What happens to this information?
- How frequently did your students use SOLO last year? Approximately, how many times do you think you students visited the computer lab to use SOLO over the course of the year?
- Are you using Passport Reading Journeys and/or SOLO at all this year? Why or why not? If so, how?

Computer Lab Access

Tell me a bit more about how the computer labs get used and how use gets prioritized. For instance, you mentioned about reading intervention programs. Tell me more about this. I know that you have difficulties accessing the computer lab for Scholar. Did you have similar difficulties for SOLO? Is lab access still an issue for you this year?

Organization of Your Classes

- Can you explain how your three language arts classes were divided last year and why they were divided in this way?
- Similarly, can you explain how your three language arts classes are divided this year and why they are divided in this way?
- What differences have you noticed between last year and this year?

Scholar

- I know that you are using Scholar with all of your students this year. Tell me about how you are using Scholar.
- What about the students that would probably have been separated last year? I am presuming that as they are all together they are also using Scholar. How is this going?
  - You have been using Scholar for several years now, what do you see as the main reasons why you use Scholar?
  - Tell me a bit more about your perceptions of Scholar.
  - Do you want to continue using Scholar? If yes, why? If no, why?
- Do you want to continue to work with the Scholar research and development team? If yes, why? If no, why?

THANK YOU!