Settings, texts, tools & participants: A rhizomatic analysis of educational designs and learning spaces in an urban high school

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SETTINGS, TEXTS, TOOLS & PARTICIPANTS: A RHIZOMATIC ANALYSIS OF EDUCATIONAL DESIGNS AND LEARNING SPACES IN AN URBAN HIGH SCHOOL

Dissertation
by
MOLLY DUGAN

submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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Abstract

Settings, texts, tools & participants: A rhizomatic analysis of educational designs and learning spaces in an urban high school

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Lisa Patel Stevens, Chair

In this study, I used the construct of design to examine the interplay of texts, tools, and participants to ask, “How are educational environments designed and how do participants interact with designs to create spaces.” I approached this question from the theoretical stance that material settings (e.g., schools, classrooms) may be designed for particular uses through institutional norms and purposeful thought (e.g., curriculum guides, technologies, architectural designs), but the way participants take up designs is not given a priori. Using ethnographic methods and spatial theories, I studied the literacy practices of a high school class designed for learning with and through multimodal textual practices, focusing on how this design of learning operated within the institutional norms of a comprehensive urban high school.

Data included participant observation, qualitative interviews, and analysis of cultural artifacts, but spatial theories (de Certeau, 1984; Deleuze & Guattari, 1987; Lefebvre, 1991; Soja, 1989, 1996) and theories of design (Kress, 2003; New London Group, 1995) guided the selection and analysis of the data. Stylistically, this dissertation uses video and hyperlinks as a representational tool to illustrate the connections between conceptual fields and to illustrate how meaning is made and conveyed through the added dimensions of multimodality.

The dissonance that the teacher’s designs caused with the school’s available designs is one of the most interesting findings. By breaking temporal and spatial boundaries of what constitutes a class, an academic discipline, and a teacher/student relationship, the teacher and the students used multimodal literacy practices in ways that offered fewer opportunities to assimilate understandings of what and how it means to learn and teach in school into available designs. The participants’ interactions with the designs were mediated, however, by their cultural understandings of the purpose of school, their place in the school, and the potential of learning in school. In other words, the rules and grammars of available designs of school were co-constructive in the active designing by the participants.
To Kevin

Thanks for making the time and the space in our lives for me to do this.
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“What goes on inside is just too fast and huge and all interconnected for words to do more than barely sketch the outlines of at most one tiny little part of it at any given instant.”

David Foster Wallace

I find writing these acknowledgments one the hardest parts of this process because I know how insufficient my words are in conveying the deep gratitude and emotion that I feel toward the people who have helped me through this process. Dr. Lisa (Leigh) Patel Stevens, my dissertation director and mentor, has helped me find the language and the theoretical tools to articulate my thoughts about learning and schools. Leigh has redefined what it means to be a scholar and has shown me that I can connect teaching, research, and service in ways that breathe life into academic pursuits. Leigh is the spark that lit my curiosity towards this project. Her brilliance shines bright; I’m lucky to have had the chance to capture some of the light.

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Most of all I am grateful to my family. Pursuing a doctorate with two young children is a group effort. My husband, Kevin, has made this possible and he and our kids have made me laugh and kept me focused on what’s important. Jim and Carol Dugan, my mother and father in –law, have been more than generous with their time and care of our children while I was at the library or studying in their guest room. I can’t express how my parents, Richard and Sally
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Theories

Chapter 1

Introduction: Settings, texts, tools & participants

Researchers in all fields acknowledge the changing knowledge and skill demands of the 21st century (Alvermann, 2002; Friedman, 2005; Hargreaves, 2003; Lankshear & Knobel, 2003; Pink, 2005; Suarez-Orozco & Qin-Hillard, 2004). The intersection of globalization, new technologies, and shifting notions of culture are changing the literacy needs of today’s adolescents. Perhaps more importantly, adolescents’ out-of-school literacy practices are causing us to question what it means to be literate in the 21st century. Schools are faced with challenging questions about how best to educate today’s students when their out-of-school literacy practices bump up against school-sanctioned literacy practices.

The new literacy demands and practices may require shifting conceptions of the relationship between teachers and students and in the relationship of the school to society. As significant as changing sociocultural conditions are the material changes in the technologies that mediate communication. However,
neither a singular focus on new technologies nor shifting sociocultural conditions encompass the more complex issues facing schools.

The material and conceptual construction of schools may need to change to attend to new to forms of knowledge and the binaries of school-sanctioned/non-school sanctioned ways of knowing and literacy practices may need to be diffused in order to effect new forms of learning. Lankshear and Knobel (2003) argue that the ‘deep grammar’ of schooling “cuts schools off from the new literacies and associated subjectivities which are part of our life trajectories” (p.31). They contend, “School learning is for school; school as it has always been” (p.31).

Policymakers, practitioners and academics debate how schools should respond to these changing conditions. Questions about literacy are central. Scholars in the field of adolescent literacy have documented the split in the literacy practices of adolescents in and out of school (Alvermann, 2002; Chandler-Olcott & Mahar, 2003; Bean & Readence, 2003; Hagood, 2004; Hagood, Stevens, & Reinking, 2002; Hull & Schultz, 2002; Knobel, 2001; Kist, 2005; Lewis & Fabos, 2000; Mahari, 2004; Moje, 2004; Moore et al., 1999; Stevens, 2002, Stevens, 2006). Simple generational differences in the use of print and digitally mediated literacies oversimplify the more complex issue of adolescents’ use of
new literacies out of school. Researchers’ findings problematize traditional academic and social boundaries of participation, authorship, and expert and novice relationships in schools. The research on adolescents’ literacy practices out of school often shows youth engaging in highly sophisticated literacy practices, yet in schools these same students may be labeled as struggling. Research makes clear that people use different literacy practices in different spaces, but what is less clear is how these practices might or might not intersect. There exists a theoretical and practical binary in our understanding of adolescents’ in school and out of school literacy practices; what is needed is a way to diffuse this binary. Spatial theory may hold a different value for thinking about what to do about this split.

_Literacy practices: A question of logic/grammar_

The question of logic and its relationship to literacies and spaces is central to this study. With educational reform as a backdrop, this semester-long ethnography in a media class at an urban high school asks how literacies operate in different spaces. This study will focus on the intersection of adolescents, literacies, and institutional sites as co-constructors of social space. The following research questions guide the study:
When looking at literacies, this study asks: What counts as literacy? When looking at institutional sites, this study asks, What are the designs of the school and the class? And towards reform, this study asks, How do participants interact with designs?

Attending to texts, purposes, and spaces possible sub questions include: What is the logic of the design and how do literacy practices work in different designs? What logic underpins adolescents’ literacy practices of in and out of school? How does the logic underpinning the structural and cultural organization of schools impact adolescents’ literacy practices? How might this logic need to be modified to accommodate the new literacies of the 21st century?

It seems the logic governing most school practices is deeply entrenched in the grammar of schooling (Tyack & Tobin, 1994). Schools operate in particular, historically determined ways. The architecture of schools, the pace, and curricular divisions have remained largely unchanged for decades. Scholars note that reform, or more drastic reengineering (Lemke, 2001) of high schools is needed. However, there is widespread agreement that the traditional structure and culture of high schools are resistant to change (Elmore, 1996; Fullan, 2001; Hargreaves, 1994; Lortie, 1975; Sarason, 1971).
Building theory: Spatiality

_Theoretical differences: Time, space, and knowledge in modern and postmodern theory_

The reasons behind this resistance may be better understood in part through an examination of the differences in Modern and Postmodern epistemology and ontology. Unpacking the theoretical differences in conceptions of time, space, knowledge, and power are central for understanding the changing literacy demands of the 21st century. As will be discussed, most school-sanctioned literacy practices are rooted in a logic based on modernist conceptions of time, space, knowledge, and power. In 2009, schools should be using a different logic.

This tension is evident in the theoretical lens itself. Kress (2003) maintains,

One of our major problems is not just change itself, but that we are forced to confront this world of change with theories which were shaped to account for a world of stability. There is an urgent need for theoretical accounts that tell us how to understand communication in periods of instability. (p.11)
Grounded in postmodern theories, spatiality and rhizomatic analysis may offer insights into the value of a different or modified logic of literacies for the 21st century.

*Spatiality: Conceptions of time, space, and knowledge*

Spatial theory problematizes modernist conceptions of time and space. In schools, modernist conceptions of time and space are manifested in cultural and structural organizational practices and in literacy practices. Kress (2003) contends that literacy practices in school are grounded in modernist traditions that build on an interpretive tradition derived from the temporal logic of reading and writing in page-bound books. Today’s Information and Communication Technologies (ICTs) operate according to an additional logic. In this spatial logic, organization and design are concurrent with interpretation.

Students outside of school use ICTs to communicate in multimodal ways. This has created a practical and theoretical binary in the in-school and out-of school literacy practices of adolescents. The material and conceptual differences of reading and writing in these new modality spaces call for a re-examination of the logic of literacy practices in schools of the 21st century. Spatial theory may offer a way to study the logic underpinning print and digital literacy practices and the logic of adolescents’ use of them in and out of school.
Literacy practices: Interactions in social space

Attending to the question of designs and how participants interact with designs to create spaces, this study examines the intersection of participants, literacies, and designs. A more complete review of spatial theory will follow, but a brief description of the use of spatiality as a lens to look at schools and literacy practices is offered here.

In my understanding of spatiality, space is conceived as a pliable construct that is stretched over material and symbolic social practices. Space is not simply constituted through interaction with the physical, architectural, and material artifacts in schools nor is it simply constituted by the spoken and written literacy practices of participants in schools, yet space is mutually constituted in relationship with them.

The significance of this more dynamic understanding of space is made clear by Harvey’s (1990) assertion,

Beneath the veneer of common sense and seemingly ‘natural’ ideas about space and time, there lie hidden terrains of ambiguity, contradiction, and struggle. Conflicts arise not merely out of admittedly diverse subjective appreciations, but because different material qualities of time and space are deemed relevant to social life in different situations. How we
represent space and time in theory matters, because it affects how we and others interpret and then act with respect to the world. (p.205)

For this study, the methodological integrity of the analysis is grounded in this understanding of interpretation. As Sheehy & Leander (2004), quoting Harvey, assert, “The purpose of spatial analysis is not to reduce space to a stability, but to show that it is always changing and to question ‘how, when, and into what’ (p. 2).

Keeping present Harvey’s (1990) contention of the importance of representation of space and time in theory, questions to consider, therefore, when determining the logic of the space are: For whom? By whom? For what? and Why? One needs to ask: What’s the purpose of the user or designer? Spatial theory offers a lens to study the interaction of the elements of form, function, design, purpose, and rationale. This study of literacy practices investigates what spatiality says about the material and conceptual spatial organization of schools and how this impacts our understanding of school-sanctioned literacy practices. This study considers the interaction of space, schools, and literacy through a study of how the particular affordance of the physical space (e.g., classroom, media center), the affordance of the mode (e.g., written, visual), the affordance of
the medium (e.g., print, digital), and the affordance of the learner (i.e., abilities, interests) intersects with schools and school-sanctioned literacy practices.

To study the logic(s) underpinning the relationships between literacy practices and the spaces they occur in requires a more nuanced discussion than one predicated on simple categorizations or dichotomizations of literacies (i.e., in/out of school, print/digital, written/visual). The material and conceptual differences of reading and writing in these new modality spaces may call for a re-examination of the logic of literacy practices in the schools of the 21st century.

The next section will explore how spatial theory and rhizomatic analysis (Deleuze & Guattari, 1987; Hagood, 2004; Leander & Rowe, 2006; Sheehy & Leander, 2004) may allow for more fluid description as a means to diffuse these binaries and help us see the relative value of a particular literacy practice within a given context.

*Space & time*

As mentioned earlier, central in spatial theory is a rethinking of the relationship between time and space. Postmodern theorists (De Certeau, 1984; Foucault, 1972; Harvey, 1990; Lefebvre, 1991; Soja, 1989, 1996) note the epistemological and ontological shift from modernist conceptions of time and
space. Harvey (1990) argues that the condition of postmodernity calls for a new logic in the conception of space.

Harvey (1990) quoting Frederick James, attributes the postmodern shift to a crisis in our experience of space and time noting, “We do not yet possess the perceptual equipment to match this new kind of hyperspace in part because our perceptual habits were formed in the older kind of space I have called the space of high modernism” (p. 201).

The space of high modernism, Harvey (1990) posits, is predicated on Western thought’s privileging of time and history over space and geography. He notes,

Social theory has always focused on processes of social change, modernization, and revolution. Progress is its theoretical object, and historical time its primary dimension. Indeed, progress entails the conquest of space, the tearing down of all spatial barriers, and the ultimate ‘annihilation of space through time. (p.205)

Soja (in Sheehy & Leander, 2004) echoes Harvey’s assertion and adds:

Throughout nearly all of the twentieth century, this epistemological and intellectual privileging of history became almost taken for granted...for the most part (human geography, the spatial dimension) too was taken for
granted, but mainly as an external stage or container-cum-environment for the making of history... it was thought that these social forces could be theorized as aspatial, unconstrained by their specific location and context.

(p. xii)

Although helpful in deciphering distinctions in social theory, conceptualizing temporality and spatiality as dichotomous may be unnecessary and unproductive when considering literacy practices. As will be discussed more thoroughly, theories of literacy as multimodal (Gee, 2003; Kress, 2003; Lankshear & Knobel, 2003; The New London Group, 1996) trouble this dichotomy. Elements of design, purpose, coherence, and logic are central in multiliteracies (The New London Group, 1996). A possible analogy is literacy as music. Songs are both spatial and temporal. The lyrics are temporal. Meaning is created through the arrangement of words in an ordered, linear fashion, but the music is spatial. The instruments can be arranged in multiple ways. They can be solo or layered, but the rhythm and melody are interpreted spatially. Music and songwriting are about design; the choices of the composer/songwriter are multimodal. The composer makes decisions based on the affordances of the mode (e.g., the instruments, the vocals) and his/her purpose of creation. The
temporal nature of songs is manifested in the ordered words and the spatial nature of songs is manifested in the blended instruments and voices to make meaning. There is no dichotomy; the dominance of one is not predicated on the subordination of the other. In songwriting and musical composition, the purpose and logic are to use both lyrics and instruments to achieve a desired outcome. It is the agency and creativity of the artist to make the best use of the tools at his/her disposal to create, design, produce, and compose texts. This multimodal understanding of songs and music can infuse a spatial logic in the conception of literacy practices in new modality spaces. Literacy practices in digitally-mediated multi-modal spaces may operate according to a different logic than page-bound texts, but as spatial theory and rhizomatics contend, the links between these multiple elements are synchronous not anarchistic.

In today’s schools and in school-sanctioned literacy practices, however, this understanding of synchronicity is often missing. Temporality, and the interpretive tradition, subordinates spatiality. Spatial theory troubles these categories.

Examining the logic underpinning the construction of categories is foundational to understanding how literacy practices operate in different spaces. Harvey (1990) posits that space and time are basic categories of human existence
The categories of space and time get “naturalized” through the assignment of everyday, common-sense meanings. We typically treat space as an objective attribute of things that can be measured and thus pinned down. Harvey, like Lefebvre and Soja, challenges the idea of a single and objective sense of time or space against which we can measure the diversity of human conceptions and perceptions. Rather, he argues that we…

recognize the multiplicity of the objective qualities which space and time can express, and the role of human practices in their construction…neither time nor space can be assigned objective meanings independently of their material processes, and that it is only through investigation of the latter that we can properly ground our concepts of the former. (p.204)

This understanding is central when considering the logic of the space, and the affordances of the mode, the medium, and the user (participant).

In concert with Harvey, leading spatial theorist Lefebvre extends and sharpens the theoretical tools of spatiality. Lefebvre (1976, as citied in Soja, 1989) argues,

Space is not a scientific object removed from ideology and politics; it always has been political and strategic. If space has an air of neutrality and indifference with regard to its contents and thus seems ‘purely’
formal, the epitome of rational abstraction, it is precisely because it has been occupied and used, and has already been the focus of past processes whose traces are not always on the landscape. Space has been shaped and molded from historical and natural elements, but this has been a political process. Space is political and ideological. It is a product literally filled with ideologies. (p.80)

Deconstructing and illuminating these ideologies is central in spatial theory.

*Lefebvre's trialectic: Perceived, conceived, and lived space*

In the *Production of Space* (1991) Lefebvre provides a theoretical framework for thinking about the dynamic interaction of material and conceptual spaces. He posits space as an on-going “trialectic” that is dynamically constituted in relation to “perceived, conceived, and lived space.” Perceived space draws our attention to the dialectical interaction between material spatial practices and the day to day deciphering of space as an accumulated form of knowledge (Leander, 1999, p. 11). More simply, perceived space can be considered the physical/material space that is produced and reproduced through embodied routines and through the use of space. Conceived space is symbolic, mental, or represented space. Conceived space is described by Lefebvre as formal, settled, and logical. Sheehy and Leander (2004) assert, “Conceived space is dominated
by ideology. In this space, representations and everyday practices seem true, right, and natural” (p. 4). In schools, conceived space is planned and designed space; it is produced in curriculum, lesson plans, writing, and speech.

Lefebvre posits “lived space” or “social space” as constituted in trialectical relation to perceived and conceived space. Soja (1996) calls lived space “thirdspace.” According to Soja, thirdspace is neither an additive combination nor a mere synthesis of perceived and conceived space, but a “disordering, deconstruction, and tentative reconstitution of their presumed totalization, producing an open alternative that is both similar and strikingly different” (1996, p.60-61). Leander (2002) considers all social space as thirdspace; asserting, “Social space is always heterogeneous and conflictual, and more or less charged with potential for the transformation of learning and identity” (p. 9-10). Therefore, if literacy is a social practice, all literacy practices take place in thirdspace.

Soja’s illusions: The illusion of opaqueness and the illusion of transparency

Building on Lefebvre’s spatial theory, Soja (1996) adds a valuable construct for thinking about space. Soja argues,

Two persistent illusions have so dominated Western ways of seeing space that they have blocked from critical interrogation a third interpretive
geography, one that recognizes spatiality as simultaneously a social product (or outcome) and a shaping force (or medium) in social life: the crucial insight for both the socio-spatial dialectic and an historico-geographical materialism. (p.7)

Soja (1989) names these two illusions the “illusion of opaqueness” and the “illusion of transparency.”

The illusion of opaqueness reifies space, including a myopia that sees only a superficial materiality, concretized forms susceptible to little else but measurement and phenomenal description: fixed, dead, and unidilectical: The Cartesian cartography of spatial science. Alternatively, the ‘illusion of transparency’ dematerializes space into pure ideation and representation, an intuitive way of thinking that equally prevents us from seeing the social construction of affective geographies, the concretization of social relations embedded in spatiality. (p.7)

Soja argues that philosophers have bounced back and forth between these two illusions. Breaking through this double-bind involves an “ontological struggle to restore the meaningful existential spatiality of being and human consciousness” (p.7).
Soja’s illusion of opaqueness and illusion of transparency will be revisited because they offer a theoretical lens for looking at both literacy practices in schools and educational reforms.

Space, schools, and literacy

So far, spatiality has been discussed broadly as a social theory. In this section, spatial theory will be explored as a lens to look at the material and conceptual organization of schools, print and digitally mediated literacies, and adolescents’ literacy practices in and out of school. Through this review, kept present is a focus on logic and on research questions that ask: What is the logic of the space and how do literacies work in different spaces? What logic underpins the material and conceptual literacy practices of adolescents in and out of school? How does the logic underpinning the structural and cultural organization of schools impact adolescents’ literacy practices? How might this logic need to be modified to accommodate the new literacies of the 21st century?

Spatiality: A lens to look at schools

Theorists including Foucault (1979, 1980) De Certeau (1984), Harvey (1990), Lefebvre (1991), and Soja (1989, 1996), have considered how individuals impact and are impacted by social structures and organizations. Issues of power, repression, alienation, and agency are central to this discussion and can be
extrapolated more specifically to consider how individuals impact and are impacted by material and conceptual school structures.

In his analysis of power Foucault (1979, 1980) discusses how populations are monitored through observation (surveillance) and through the deployment of regulatory regimes of power and knowledge. In schools, the regimes of power include the physical movement and organization of bodies in the school space as well as the curricular and conceptual organization of knowledge. The planned hierarchical power structure may be clearly delineated, but human agency may disrupt its linear or totalizing organization. As Foucault (1979) argues, “Power is everywhere: not because it embraces everything, but because it comes from everywhere.... Power is not an institution, nor a structure, nor a possession. It is the name we give to a complex strategic situation in a particular society” (p.93). In hierarchically structured organizations, individuals may carve out other spaces or ‘heterotopias’ (1986). In his lecture Of other spaces (1967), Foucault posits heterotopias as socially constructed counter-spaces or “other” spaces. These are spaces of resistance and freedom. Foucault’s theoretical work has been central to many critical studies of school structures and cultures. Harvey (1990) argues, however, that Foucault’s conception of space is limited and limiting as a spatial lens. Harvey notes, “Space, for Foucault, is a metaphor for a site or
container of power which usually constrains but sometimes liberates processes of Becoming…Foucault’s exclusive concentration on the spaces of organized repression (prisons and other institutions of social control) weakens the generality of his argument” (p.213).

Foucault’s conception of “heterotopias” seems to create a duality between conventional spaces and counter spaces. If conventional spaces are the spaces of institutional norms, counter spaces are the deviant spaces carved out of the conventional institutional spaces, but they are still embedded within the existing structures. By default, institutional norms are re-centered and counter spaces are marginalized.

Echoing Harvey, Sheehy and Leander (2004) challenge static or fixed containers of space that are carved out noting, “Whereas space was once thought of as empty, available, and waiting to be filled up, recent theorizing about space has brought to light that space is a product and process of socially dynamic relations. Space is not static- as in metaphorical images of borders, centers, and margins – it is dynamically relational” (p. 1).

De Certeau (1984) extends this understanding of space as mutable and available to possibility. As Harvey (1990) asserts, de Certeau treats social space as open to human creativity. Rather than a coherent system that creates a
totalizing space, social space is a narrative constructed through the social practices it symbolizes. For de Certeau, “Spaces can be more easily ‘liberated’ than Foucault imagines, precisely because social practices spatialize rather than becoming localized within some repressive grid of social control (Harvey, 1990, p. 214). As will be discussed, this understanding of social space comports well with Deleuze and Guattari’s theory of the rhizome and the methodological choice to use rhizomatic analysis for the analysis of the data.

Spatiality: A lens to look at literacy practices

De Certeau (1984) illustrates how one concept can be differently understood based on perspective. In his chapter, “Walking the city,” he describes the city as a concept that when viewed from above or on a map appears as a unified whole but is differently experienced when walked as a pedestrian. The walker at street level moves in ways that are tactical and never fully determined by the plans of organizing bodies, taking shortcuts or meandering aimlessly in spite of the utilitarian layout of the grid of streets (De Certeau, 1984). These social spaces, or “spaces of enunciation,” are more open to human creativity and action.

The analogy of the aerial view of the city connects with Soja’s (1989) illusion of transparency and Lefebvre’s (1991) conceived space. This aerial view
may be equated with top down change initiatives in schools and with a priori literacy curriculum and policy initiatives that fail to recognize how users will modify and adapt programs just as Soja’s illusion of transparency and Lefebvre’s conceived space may induce a far vision that obscures micro relationships.

The analogy of the pedestrian walking the city may be compared to literacy practices on the internet and with other ICTs where users have multiple pathways into text, multiple links to other textual spaces, and multiple ways to manipulate text. Implied is a connotation of freedom and agency, but an understanding of Soja’s (1989) illusion of opaqueness and Lefebvre’s (1991) perceived space may illustrate how the view can be obscured. De Certeau (1984) seems hopeful that individual pedestrians can act alone to transform larger social practices, but Soja, in contrast, might consider the pedestrian caught in an illusion of opaqueness where his/her on the ground vision obscures the bigger picture or the macro-structuring forces. Perhaps a more nuanced understanding of design can explore the illusion of transparency/illusion of opaqueness and the theory/practice dialectic in schools.

Later, these concepts will be more specifically addressed in relation to literacy practices and the spatial logic of the medium, the mode, and the material practices of the user in different spaces.
Spatiality: Deleuze and Guattari’s rhizomatic theory

In exploring spatial logic, this study draws on the work of Harvey (1990) who suggests that each distinctive “social formation, in short, will embody a distinctive bundle of time and space practices and concepts...This does not mean that practices are determined by built form...for they have the awkward habit of escaping their moorings in any fixed schema of representation” (p. 204).

Harvey’s claim echoes Deleuze and Guattari’s (1987) metaphor of the rhizome and their concepts of lines of flight and lines of articulation. Rather than fixed points or a priori categorizations, Leander and Rowe (2006) note, “Deleuze and Guattari move us to consider how social life and social foundations are an outcome of dynamic connections. Thinking in terms of lines and movement among heterogeneous objects is a means of thinking toward difference” (p.436).

Because these dynamic interactions are at the heart of this study, rhizomes are a more robust analytical tool for this project than heterotopias (Foucault, 1967). Where heterotopias posit a binary between utopia and heterotopias or as Foucault notes, “Because these places are absolutely different from all the sites that they reflect and speak about, I shall call them, by way of contrast to utopias, heterotopias,” rhizomes, instead of positing space as a metaphor for a site or...
container of power (Harvey, 1990), note connections, ruptures, and movement. The use of power, or tactics and strategies (deCerteau, 1984), is in support of the space, it is not only about subverting structures of power. As an analytic tool, rhizomes offer a way to look at the multiplicity of things that can happen in spaces and allow me to examine the designs of the school and X’s class to note how participants interact with designs to create spaces and to study the relationships between literacy practices and designs.

Rhizoanalysis: A spatial methodology

The next section will explore how the rhizoanalytic approach of Deleuze and Guattari (1987) has particular analytic value in the interpretation of data grounded in spatial theory. Central in Deleuze and Guattari’s theory is the destabilization of linear and fixed conceptions of social practices and power. They offer the figuration of the rhizome as a metaphoric foil to traditional arboreal structures of social systems and practices. Kamberelis (2004) explains,

For Deleuze and Guattari, the rhizome is an oppositional alternative to what they call arborescent or arboreal ways of thinking, acting, and being…arborescent forms and structures may be imagined metaphorically as trees-linear, hierarchical, sedentary, striated, vertical, stiff, and with deep and permanent roots. They are structures with branches that
continue to subdivide into smaller and lesser structures. In their various social and cultural instantiations, arborescent models of thinking, acting, and being amount to restrictive economies of dominance and oppression.

(p.194)

In contrast to arboreal ways of thinking, Deleuze and Guattari (1987) offer the metaphor (figuration) of the rhizome. Rhizomes are grass-like networks that spread in every direction. Rhizomes operate according to a different logic than trees. They assert,

...the rhizome connects any point to any other point...the rhizome is reducible to neither the One nor the multiple...Unlike a structure, which is defined by a set of points and positions, with binary relations...the rhizome is made up only of lines: lines of segmentarity and stratification...and lines of flight or deterritorialization. In contrast to centered systems with hierarchical modes of communication and preestablished paths, the rhizome is an acentered, nonhierarchical, nonsignifying system... (p.21)

A more complete methodological discussion of rhizoanalysis will follow, but is included here in hope of conveying how the theory, methods, and conceptual fields of this study are integrated.
As an analytic tool, rhizoanalysis seems apt to study the relationship between literacy practices and the spaces they occur in because rhizoanalysis allows one to see conceptual and material breaks and ruptures as well as connections in adolescents’ literacy practices across designs. Rhizoanalysis may illuminate new ways to think about literacy practices and offer insights towards a diffusion of the in-school/out-of-school binary.

Definitions of literacy: A brief review

Before considering how spatiality may impact our understanding of the need for a more nuanced discussion of literacy in the 21st century, a brief review of the debate surrounding the very definition of literacy in psycholinguistic and sociocultural theory is provided.

In debates about literacy, psycholinguistic theories posit literacy as a mental process and an internal, individual set of skills. Through a cognitive lens, literacy competency is embodied in individual students’ innate abilities and aptitudes. In contrast, sociocultural theories view literacy as enmeshed in the context, culture, and everyday discourses of people’s lives; all literacy is viewed as social practice (Barton & Hamilton, 1998; Gee, 1990, 1996; Heath, 1983;
Muspratt, Luke & Freebody, 1997; Street, 1984, 1995) and social practices are laden with differential status and power.

**New literacy studies**

In the early 1980s, the work of Street (1984) and Heath (1983) challenged the psycholinguistic literacy paradigm with methodologies and a theoretical lens that attended to the cultural and social behaviors and interactions between individuals. Their work laid the foundation for the “social turn” (Gee, 1996) in literacy research. This social turn disputed the narrow ‘technical and neutral nature of the ‘autonomous’ model of literacy” (Street, 1984, p.29) and ushered in a new line of research that came to be called The New Literacy Studies (NLS). New Literacy Studies are based on the view that “reading and writing only make sense when studied in the context of social and cultural (and we can add historical, political, and economic) practices of which they are but a part” (Gee, 1996). Instead of literacy as an “in the head,” purely cognitive practice, reading, writing, and meaning are seen as always situated within specific social practices within specific D/discourses (Gee, 1990).

In schools, the school-sanctioned discourse of “what works” and “best practices” for secondary literacy are often aligned with more psycholinguistic theories of literacy. The influence of psycholinguistic theory is materially
evident in literacy policy, pedagogy, and assessment. Its influence is conceptually evident in the narratives of what it means to be a student and what it means to be literate (Muspratt, Luke and Freebody, 1997). This view may marginalize student literacies and social practices in two ways.

First, the out-of-school social practices of some students flow smoothly into school-sanctioned social practices. As members of the dominant culture, these students have naturally mastered the standard and dominant discourse of schooling (Gee, 1990). For students from non-dominant or marginalized cultures, however, their out-of-school social practices are often dammed (and damned) by schools (Delpit, 1995; Heath, 1983, Irvine, 1990; Ladson-Billings, 1995; Villegas, 1988). Second, outside of school, adolescents interact with text in multiple, purpose-driven ways. ICTs and digitally mediated texts are increasingly instrumental. However, neither adolescence nor adolescents’ literacy practices should be viewed monolithically. Factors of class, access, and personal and societal patterns influence literacy practices.

**Multiliteracies**

In 1996, The New London Group asked, “How do we ensure that differences of culture, language, and gender are not barriers to educational success? And what are the implications of these differences for literacy
pedagogy?” (p.61). The researchers’ exploration of these questions led to the publication of, *A pedagogy of multiliteracies: Designing social futures* and challenged the dominant discourse in literacy policy and practice. Their paper provided a theoretical overview of the connections between the changing social environment facing students and teachers and offered a new approach to literacy pedagogy that they called multiliteracies.

Their paper serves as a line in the sand between literacy researchers who see reading as a cognitive, technical activity or “mere literacy” (p.63) and literacy researchers who contend that the definition and substance of literacy should be extended and broadened to include “multiliteracies” in order to “focus on modes of representation much broader than language alone” (p. 64).

The New London Group (1996) articulates two main arguments for the use of the term “multiliteracies.” First, they note the “increasing multiplicity and integration of significant modes of meaning-making, where the textual is also related to the visual, the audio, the spatial, the behavioral, and so on” (p.64). Second, the term illuminates the “realities of increasing local diversity and global connectedness…When the proximity of cultural and linguistic diversity is one of the key facts of our time, the very nature of language and learning has changed” (p.64). Extending the scope of New Literacy Studies, this alternate paradigm in
literacy pedagogy has changed (or at least complicated or problematized) the landscape of literacy policy and practice.

When literacy is viewed as social practice, the social space of the classroom is constructed through the interaction of social, cultural, historical, and structural forces. As Hanks (in Lave & Wenger, 1991) asserts, “Meaning, understanding, and learning are all defined relative to actional contexts, not to self-contained structures” (p.15). The school space mediates and is mediated by these forces in ways that paradoxically position students as powerful and powerless, literate and illiterate, cultured and decultured.

A different lens may offer a new way to think about educational reform, literacy, and classrooms. Myriad reforms, however, have already focused attention on literacy (Reading First, 2002; Reading Next, 2004) without substantive or sustained changes in material practices and outcomes for students’ educational attainment. With literacy as a site of reform, what is needed is a different way of researching literacy practices.

Rhizoanalysis may offer a way to consider how the particular literary practices and events in different discourse communities interact with modality spaces. Perhaps a multimodal theory of literacy can add meaning to our understanding of literacy practices and the affordances of particular modality
spaces. From a sociocultural perspective, literacy is a social practice thus, interaction with texts in different contexts (e.g., in/out of school) necessitates different bundles of skills and practices. Sociocultural theory sees literacies as fluid and shifting in relation and interaction with people. Needed is consideration of how literacy practices operate in different modalities (e.g., print, digital). As in sociocultural theory, multimodal theory sees literacies as fluid and shifting, but the materiality of the space and the tools and resources impact concurrently with power and agency in human interactions. As made clear by The New London Group (1996), an understanding of design is central. Perhaps this is part of the distinction between sociocultural and multimodal theories of literacy. In theorizing about design, the impact of multiple modes (e.g., print, screen, sound, image) and the affordances of different modes assert a complicating spatial logic in the conception of literacy. Again, as Harvey (1990) argues, “A distinctive bundle of time and space practices and concepts” (p.204).

However, a unitary assumption about the relationship between design and literacy practices falls short. The New London Group (1996) clearly calls attention to the importance of design, but they fail to articulate how the multiplicity of identities and modalities may interact within the same place.
They ask, “How do we ensure that differences of culture, language, and gender are not barriers to educational success? And what are the implications of these differences for literacy pedagogy?” but these are still questions of how to maximize students’ access to school achievement. These questions do not shift the frame to how to shift schooling practices. The educational frame of school as reproduction is unchallenged.

More attention needs to be given to what individuals do and how individuals interact with designs in relationship to and against educational frames of learning, planning, and assessing. Sociocultural theory and multimodalities pay attention to context (place), but spatiality pays attention to how spaces are created within those places. Using spatiality, this study’s central research questions may address this gap by asking: When looking at literacies, What counts as literacy? When looking at institutional sites, What are the designs of the school and the class? And towards reform, How do participants interact with designs to construct spaces?

*Literacy practices: Interactions in new modality spaces*

Scholars in multiple fields are studying how digital technologies are impacting literacy practices. Among others, Alvermann (2002); Darley (2000), Gee (2003), Hagood, Stevens & Reinking (2002); Kist (2005); Kress (2003),
Lankshear and Knobel (2003) offer insights into changing relationships between readers, writers, and texts.

To frame the impact of digital technologies on literacy practices, I begin with a broader cultural critique of new media genres by Darley (2000). In *Visual digital culture: Surface play and spectacle in new media genres*, Darley contends that the nature of engagement with texts is changed in visual digital genres (e.g., videogames). As previously discussed, shifting understandings of the nature of time, space, and knowledge are central in unpacking the relationship between the spectator and the participant in visual digital culture. Increased visual modalities mute the interpretive nature of print-based texts. The reader (or player) makes meaning differently. Darley notes,

> In their distinctive ways, the various expressions of visual digital culture all position their spectators as seekers after various modes of direct visual and corporeal stimulation...They do not propose spectators who are bent on interpretation...The activity mobilized in this instance is not primarily intellectual, not reflective or interpretive in character, but rather sensual and diverting in various ways. (p.168)

Darley asks, "How might we begin to understand the significance of the emergence of genres that position and mobilize spectators less and less as
‘readers’ and more and more as ‘sensualists’?’ (p. 173) “Or to put it another way, if interpretation is not the main activity of such spectators what else might they be doing when they engage with such work?” (p.170). The answer, he contends, is more akin to play. Types of play, however, run along a continuum and hinge on the freedom and agency of the participant. Fiske (1994, in Darley, 2000) uses the metaphor of the carnival, a space where the spectator can “play with the semiotic process,” but Darley questions the amount of freedom the spectator has to play with the semiotic process when the relationship is reciprocal, the semiotic process also plays with the recipient. Darley calls these spaces, “spaces of consumption.”

These spaces are also called “semiotic domains” (Gee, 2003). Gee defines a semiotic domain as, “any set of practices that recruits one or more modalities (e.g., written or oral language, images, equations, symbols, sounds, graphs, gestures, artifacts) to communicate distinctive types of meanings. Semiotic domains are governed by internal (i.e., content) and external (i.e., social practices and identity) design grammars. For Gee, “learning involves mastering, at some level, semiotic domains, and being able to participate, at some level, in the affinity group or groups connected to them” (p.207). Gee suggests that video games, as semiotic domains, advance active, rather than passive, learning, thus
enhancing the agency and power of the user; however, as a design space, Gee concedes that video games, as are all semiotic domains, are socially constructed and inherently political, “designed to engage and manipulate people in certain ways” (p. 43). Users, therefore, must be critical consumers in all semiotic domains.

The level of manipulation is made clear by Darley (2000) who argues that spaces of consumption are “more like playgrounds, circumscribed and highly regulated,” not so much like carnivals and festivals. In digital games, the level of interactivity is limited. Although the spectator is positioned as a real-time participant with a certain agency and control over how the game unfolds, the level of play is still regulated. Darley’s central question is applicable when considering literacy practices in and out of school. He asks, “What are the particular attributes and conventions that underpin such practices and the experiences they engender?”

In an era where schools are experimenting with new technologies and new spatial arrangements, this question is central to questions of literacy and educational reform. We may contend that new modality spaces offer participants enhanced agency and hands-on direction to interact with texts, but the particular characteristic of the interactivity must be examined. Operating in
different spaces engenders different literacy practices. Darley discusses various “spatial arrangements” (e.g., constructed and adapted spaces, privatized and self-centered spaces, public and private spaces) and cautions that,

Attending to the local and specific-to the detail and differentials of form and reception- helps display the often subtly nuanced character of a general culture that increasingly is characterized in terms of uniformity and monotony…There are differing shades or degrees of spectator experience, antagonistic modes of spectatorship. We should not lose sight of the diversity of aesthetic spaces together with the distinctive forms they engender. (p.190)

This is an additional reminder of the danger of reductionist or dualistic thinking. Thinking rhizomatically, it is helpful to consider Darley’s (2000) claim that,

“Cultural history is not always understood in terms of breaks or ruptures. Recognizing continuities can also be illuminating… (those) firmly embedded in and moulded by the contemporary moment” (p.191)

Again, attention to factors of time and space are central. Critics of gaming and other digital technologies contend that “the contemporary subject is one who spends just as much time inhabiting, ‘traveling’ and gazing in vicarious mediated time and space as in actual time and space” (Freiberg, as quoted in
Darley, 2000). The very argument over ‘virtual’ and ‘real’ is problematic. The dichotomy is blurred when considering daydreams, imagination, and the experience of being transported by a book. Instead of constructing a binary between virtual and real, it may be more useful to consider the particular attributes, conventions, and logic of particular spaces and literacy practices.

Attending to the logic of particular literacy practices is central in Kress’ (2003) *Literacy in the new media age*. Like Darley, Kress explores how new technologies are changing literacy practices. Kress attends more specifically to differences in the logic of writing and the logic of the image. Again changing conceptions of time and space are central. He argues,

> The two modes of writing and of image are each governed by distinct logics, and have distinctly different affordances. The organization of writing...is governed by the logic of time, and by the logic sequence of its elements in time, in temporally governed arrangements. The organization of the image by contrast, is governed by the logic of space, and by the logic of simultaneity of its visual/depicted elements in spatially organized arrangements. (p.2)

Instead of supplanting the written for the visual or the visual for the written, Kress calls for a “focus on what each mode makes available and use that as
starting point for debate.” This connects with Darely’s attention to the diversity of aesthetic spaces together with the distinctive forms they engender. One does not displace the other. Digital modes offer “a new constellation of semiotic resources” or resources of and for meaning making (Kress, 2003, p.9).

In digital modes, interactions with texts are changed. Researchers (Darley, 2000; Gee, 2003; Lankshear & Knobel, 2003, Lemke, 1995, Unsworth, 2001) discuss the effects on social and semiotic power through new modes of interactivity and hypertextuality. Enhanced interactivity allows users to write back to producers of texts, thus affecting traditional social power structures and the power dynamic between authors and users/readers. Hypertextuality allows users to enter into new relations with other texts, thus affecting semiotic power structures by permitting users/readers multiple entryways into texts and multiple exits out of the original text through hyperlinks. These non-linear ways of interacting with texts challenge traditional temporal and interpretive semiotics. Spatiality plays a central role. In schools, the implications seem clear. The nature of customary reading tasks is changed when the texts shifts from print to digitally mediated texts. In a digital mode, teachers cannot assume that students have read the same text in the same way. For example, if a digital text has hyperlinks, some students may click and exit the original text while other
may not. Graphics and images may lead students to disparate textual spaces. Although the material differences in textual practices are clear in this example, we know from sociocultural literacy theory that no two readers ever read a text in the same way. Therefore, to say that a teacher could ever assume that all students share a common or uniform understanding or interpretation of a print based text is misguided.

This new constellation of semiotic resources impacts literacy practices in multiple ways. Kress (2003) argues that four factors are central. These include: the social, the economic, the communicational, and the technological. The social factor is evidenced in the weakening or disappearance of relevant social “framings.” An example is the changing levels of formality in writing in different modes and different mediums (e.g., email, text messaging, instant messaging). The economic factor includes the new communication demands in the economies of knowledge and information. The communicational factor includes the new uses and arrangements of modes of representation (e.g., increasing use of image as a means of communication). The technological factor includes the shape and facilities of new media and the changing relations of the media of the page (e.g., print and screen media and modes).
These four factors underscore the changing interaction of users and texts as discussed in Darley’s (2000) discussion of spectators and participants in digital culture. Especially interesting from a spatial perspective is how Kress’ (2003) “multimodal” theory of literacy seems to extend sociocultural understandings. In a multimodal theory, the materiality of the space and the tools/resources impact concurrently with the interpretive mode. This may provide a way to diffuse binaries between cultural and structural theories of literacy and theories of educational change.

The mediating potential of technology is central in the work of McLuhan and Baudrillard. McLuhan’s (1967) assertion that “the medium is the message” implies a theory that privileges form over content. In an analysis of the work of McLuhan and Baudrillard, Letiche (2004) notes that technology is viewed as “structuring the world directly (because) a means of communication determines a set of social possibilities” (p.135). The elevation of the medium and the form (or the how the text appears) over the content (or what the text communicates), raises fears about the de-humanizing impact of technology. However, debates about the de-humanizing effects of technology are re-humanized as multiliteracies when considered from a multimodal theory.

*Design*
The theory of multiliteracies takes design as central (New London Group, 1996). Keeping design central provides a material and conceptual bridge between the medium and the message. Design is praxis with spatiality as the theoretical underpinning. Design is constituted through particular spatial, sociocultural discourses and modes and through material affordances of particular modality spaces.

In design, consideration of time and space are elemental. Kress (2003) maintains that time-based modes (e.g., speech) differ from space-based modes (e.g., image). While the fundamental logics of the two types of modes differ, some modes are mixed (e.g., gesture, writing). He notes, The logic of space leads to the spatial distribution of simultaneously present significant elements, and both the elements and the relations of the elements are resources for meaning...But mixed logic are, above all, a feature of multimodal texts, that is texts made up of elements of modes based on different logics. Mixed logics pose new questions: of reading, but also of design in writing. The distinct representational and communicational affordances of modes lead to their functional specialization...In multimodal texts, information may be carried largely in
one mode, more than in others. There will therefore be a difference in the

*functional load* that each mode carries. (p.46)

This understanding provides a way to diffuse binaries; each mode and each
medium is chosen according to its best use.

Rhizomatics and spatial theory support Kress’ logic in his assertion that,

“In a world of instability, reproduction is no longer an issue: what is required
now the ability to assess what is needed in this situation now, for these
conditions, these purposes, this audience- all of which will be differently
configured for the next task” (p.49). Both theory and pedagogy surrounding
literacy practices and structural and cultural educational change efforts could be
bolstered by this insight.

*Spatiality and rhizoanalysis: Studying adolescent literacy practices in and across spaces*

Spatial theory may illuminate the relationship between sociocultural
understandings of adolescents’ literacy practices in and out of school and
multimodal understandings of the interaction of the medium and the mode in
the ways adolescents make meaning in different modality spaces (e.g., print,
digital). Methodologically, rhizoanalysis offers a means to look across
adolescents’ literacy practices as they interact with different designs in the school
and in the class. Using this construct enables a consideration of adolescents’ out
of school literacy practices (e.g., cell phone use) while at the same time considering how students use cell phones in school. These spaces and these literacy practices are constructed as a binary, but by studying the data through rhizoanalysis in concert with spatial theories (deCerteau, 1984; Deleuze & Guattari, 1987; Lefebvre, 1991; Soja, 1989, 1996) we may find insights into how to diffuse these binaries.

With the school as a material and conceptual spatial medium, however, the potential for literacy practices to travel and traverse may be constrained by the structural and cultural forces embedded in the social formation of institutional norms.

Educational reforms: Through a spatial lens

Changing institutional norms is typically done through the disciplinary language and perspective of educational reform, but conceptualizing educational change necessitates a better understanding of the school as a material and conceptual design. Through spatial theory, it could be argued that school reforms get trapped in a double bind between the more physical, on the ground, school, practice level (i.e., the illusion of opaqueness) and the more theoretical, mental, in the tower, academy level (i.e., the illusion of transparency). As
previously discussed, Soja’s (1989) illusion of transparency and illusion of opaqueness may shine a theoretical light on this double bind. In *Thirdspace* (1991) Soja further refines the constructs of the illusion of opaqueness and illusion of transparency, adding that working from Lefebvre’s critique he simplified the

…double illusion into one of myopia (nearsightedness, seeing only what is right before your eyes and no further) and hypermetropia (farsightedness, seeing so far into the distance that what is immediately before you disappears); and then used these illusions to criticize the epistemological dualism of objectivist-materialist and subjectivist-idealist approaches. (p. 63)

This dualism seems to connect to the literature on educational change and to the theoretical and practical tension between cultural and structural theories of change. Perhaps spatial analysis may shed new light on this double illusion.

*Theories of educational change*

Theories of educational change have attended to structural systems (Elmore, 1996; Fullan, 2003; Reville, 2006) and social/cultural (Hargreaves, 1994, 2003; Lortie, 1975; Sarason, 1971; Sergiovanni, 2000) forces as the shapers of school practices. Countless reform efforts have been enacted based on the belief
that changing the systems structures and/or cultures of high schools will bolster student achievement and engagement.

Some urban high school reform efforts have embraced this hope by breaking large high schools into small school or academies. The success of these reform efforts is mixed (Raywid, 2003). Simple structural changes do not guarantee changes in the social practices of teachers and students in the classroom.

Communities of practice: Through a spatial lens

Reform efforts to change classroom culture face similar limitations. The work on communities of practice (Lave & Wenger, 1991; Wenger, 1998) has been taken up in efforts to transform schools into learning communities. The concept of a community of practice is based on the idea that people come together and interact around shared practices, but recently scholars have been examining the limits of this theory. Gee (2005) notes, “the idea of ‘community’ can carry connotations of ‘belongingness’ …which do not necessarily fit classrooms…the key problem with notions like “community of practice,” and related one’s like “communities of learners,” is that they may look like we are attempting to label a group of people” (p.214-215). Thus, labeling classrooms as learning communities
may mistakenly overlook issues of power, tension and conflict, theories of language, literacy and discourse, risk and stigma, and resistance and inequality (Barton and Tusting, 2005).

Harvey (1990) notes,

the “concept of community (as a social entity created in space through time) can disguise radical differences in meaning because the processes of community production themselves diverge remarkably according to group capacities and interests. Yet the treatment of communities as if they are comparable (by, say a planning agency) has material implications to which the social practices of people who live in them have to respond.

(p.205)

Central in the concept of community is the relationship between the individual and the collective. Deleuze and Guattari (1987) articulate the principle of multiplicity “in order to escape the abstract opposition between the multiple and the one, to escape dialectics” (p. 32)....“Multiplicities are rhizomatic, and expose arborescent pseudomultiplicites for what they are” (p.8). Further troubling stable constructs of community is Deleuze and Guattari’s (1987) discussion of pack and mass multiplicities. Canetti (cited in Deleuze and Guattari, 1987, p.33) maintains that mass (“crowd”) multiplicities are characterized by, “concentration,
sociability of the aggregate as a whole, one-way hierarchy, organization of territoriality or territorialization” (p.33). Packs, on the other hand, are characterized by “dispersion, qualitative metamorphosis, impossibility of a fixed totalization or hierarchization” (p.33). On the surface this appears to be another simple binary, but Deleuze and Guattari note that, “there is no more equality or any less hierarchy in packs than in masses, but they are of a different kind. Individual agency and collective action are intertwined as each member “takes care of himself at the same time as participating in the band” (p.33).

Pack multiplicities may be a more authentic representation of communities of practice. Packs are hard to hierarchize because they are temporary and shifting. Members come together more in terms of their potential motivations and purposes rather than in forms of affiliation. Kamberelis (2004) notes, “Packs do not operate with arborescent logics. They come and go, mutate and gestate, gain momentum and change direction. They are unpredictable, but this is exactly their importance and a key reason for their effectivity” (p. 170).

Understanding communities of practice as packs connects to de Certeau’s (1984) discussion of “tactics” and “strategies.” De Certeau argues that the use of strategies is linked to institutions and structures of power where tactics are used by individuals to create spaces for themselves in structures of power. Packs use
tactics and deterritorialize in lines of flight. Mass multiplicities use strategies and reterritorialize in lines of segmentarity.

Rhizomatic cartography offers a means to unpack these practices. Deleuze and Guattari (1987) contend that arboreal structures are deep, reproductive structures that operate according to the principles of “tracing.” Conversely, the rhizome operates according to the logic of “maps.” They note, What distinguishes the map from the tracing is that it is entirely oriented to toward and experimentation in contact with the real...The map is open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification...Maps have multiple entryways, as opposed to the tracing, which always comes back to the same” (p.12)

This construction seems to revert to a simple dualism arguing that maps are better figurations than tracings; however, Deleuze and Guattari suggest that their effective use is a question of method: “the tracing should always be put back on the map” (p.13) to “connect the roots or trees back up with the rhizome” (p.14). Doing so allows for the deconstruction (not demise) of arboreal structures with rhizomatic ones. As Kamberelis (2004) posits,

Placing tracings back on maps bring into relief the extent to which lines of flight are constantly being intercepted and domesticated by lines of
articulation (segmentarity) that hold arborescent structures together.

Tracing now function in the service of maps rather than as blinders to new possibilities for how reality might be organized. (p.166)

In terms of school structures and literacy practices, tracings may be seen as linked to Soja’s (1989) illusion of opaqueness. The tracing connects to the illusion of opaqueness as it limits our view and blinds us to possible lines of flight. The deep structure and tracings in schools may be used to illustrate how schools co-opt out of school literacy practices. Take, for example, writing practices. The tracing and deep structure of writing practices in schools impacts the way new literacy practices are enacted. For example multimodal texts afford users added semiotic modes (e.g., visual, gestural, aural) and opportunities for intertextual connections through hyperlinks; these texts operate according to a spatial logic. When they’re brought into schools, however, the affordances of multimodal texts are often neglected and instead are used according the logic of the printed, written page. Thus the “tracing” or “deep structure” of writing practices blocks possibilities and affordances of the medium.

Scholars in adolescent literacy and digital media and learning are working to understand both adolescence and how new literacies are impacting what it
means to be literate in the 21st century. Often, spatial theory underpins the conceptual and empirical work in this line of research because researchers have observed that adolescents use different literacy practices in different spaces. A brief discussion of the field of adolescent literacy follows.

Adolescent literacy

Researchers in the field of adolescent literacy are studying adolescent literacy practices both in and out of school (Alvermann, 2002; Chandler-Olcott & Mahar, 2003; Bean & Readence, 2003; Hagood, 2004; Hagood, Stevens, & Reinking, 2002; Hull & Schultz, 2002; Knobel, 2001; Kist, 2005; Lewis & Fabos, 2000; Mahari, 2004; Moje, 2004; Moore et al., 1999; Stevens, 2002, Stevens, 2006).

These researchers have articulated a clear division between the in-school and out-of school literacy practices of adolescents. This binary is constructed in two ways. First, this divide is clear in the material literacy practices of adolescents in and out of school. In-school, literacy practices are often driven by traditional conventions in curriculum and pedagogy which are largely centered on monomodal, print based texts. Out-of school, however, adolescents often engage with text in multimodal, digitally mediated ways. Second, the binary is constructed in the way that adolescents’ facility with in-school and out-of school
literacy practices positions them as more or less knowledgeable, skilled, or proficient. As Hagood, Stevens, and Reinking (2002) note, “there is a profound disjuncture between the literacies adolescents competently learn and use on their own and the ones adults expose them to and require them to learn in schools” (p.81). Although these two points make clear that adolescents use different literacy practices in different places, we need a better understanding about what to do about this split and attention to how practices can be viewed in ways that aren’t limited to place. To get beyond the strict in-school and out-of school binary may require an understanding of how literacies operate in spaces. Spatiality may offer a way to diffuse these binaries by offering a better understanding of the relationship between the literacy practices and spaces. As discussed, these spaces, however, are not neutral; they are ideologically charged.

The nature of adolescent learning

A transformative line of research from New Literacy Studies is the re-conceptualization of adolescence and the particular literacy practices of adolescents. Scholars in the field of adolescent literacy foreground the learner rather than the particular curricular content. Instead of looking at adolescents as a monolithic construct, Alvermann (2002), Stevens (2002), Moje (2002), and Hagood (2002) critique the notion of adolescence as a “stage’ with fixed and
bounded constructions of identity. They maintain, “Rather than view them as ‘not yet’ adults and thus less competent and less knowledgeable than their elders, (we), write about adolescents, who, like adults, know things that have to do with their particular situations and the particular places and spaces they occupy” (Alvermann, 2002, p.viii). These researchers posit a more expansive view of literacy that necessitates more than simply teaching reading to adolescents using a skill and strategy approach. The challenges of shifting from content area literacy to adolescent literacy, however, are many.

In study of secondary pre-service teachers, Stevens (2002) finds that many pre-service teachers view adolescent literacy through the traditional lens of content area literacy. Students resist taking up the “critical framing” (New London Group, 1996) aspects of pedagogy; instead foregrounding traditional content-literacy pedagogies. This conservative stance is well documented in literature on teacher change (Lortie, 1975; Sarason, 1971; Little, 1990). Stevens (2002) notes, “While it might be tempting for us to criticize these types of responses as limitations of the students, there are also reflections of institutional and societal discourses present in their responses” (p. 270). This seems especially troubling because one would hope that pre-service teachers would yet to have fixed ideas of proper pedagogy for adolescent students. This marks a clear
challenge for teacher education, for the induction of teachers into the profession, and for policy makers. Effecting this change will necessitate a complex “transition from a curriculum –centered discourse of content area literacy to a human-centered discourse of adolescent literacy” (Stevens, 2002, p.275).

Moje (2002) offers a possible lens for conceptualizing this shift by re-framing “adolescence as a problematic stage” to viewing “youth as a resource.” By moving from a deficit model, Moje articulates a different way of thinking about adolescents and what they know and can do. Moje suggests,

If we turn our attention to youth and study how they learn increasingly complex literacy practices required in disciplinary discourse communities, how they reinvent literacies for unique contexts, and how they use literacy as a tool to navigate complex technologies and fragmented social worlds, them we might learn more about literacy learning among children and adults. As Comaroff and Comaroff (2000, p.308) argued, ‘youth tend everywhere to occupy the innovative, uncharted borderlands along which the global meets the local. (p. 212)

This shifting focus repositions the burden of self-examination to adults, especially teachers and policy makers. As Hagood (2002) notes,
Perhaps a practical place to start this work in critical literacy for instructional purposes is with teachers’ and researchers’ reflection of stances developed in their everyday lives in interaction with adolescents’ and their identities and subjectivities with which adults come into contact.

(p. 260)

These studies seem to call for a critical examination of the teacher and institutional mindsets that drive traditional notions of literacy and understandings of adolescence.

_The implications for adolescent literacy pedagogy_

The challenge then appears to be one of diffusing the binaries of “old and new mindsets” (Lankshear and Knobel, 2003, p.18). The culture and structure of schools are resistant to change, but if schools are to be relevant in the future they will have to attend to the new knowledge demands of the 21st century as well as to the new literacy practices that students bring with them. Instead of hearing stories like the one Lewis and Fabos (2000) tell about students who “are bored by the pace and sequence of writers workshop (and) who fake their rough drafts after having completed final ones in a flash” (p.468), teachers, researchers, and policy makers must recognize the already present adolescent funds of
knowledge and work in concert with students to generate ways to broaden literacy practices and interrogate text. As Luke (2000) notes,

this calls for a redefinition of critical literacy (that) focuses on teaching and learning how text work, understanding and re-mediating what texts attempt to do in the world and to people, and moving students toward an active position takings with texts to critique and reconstruct the social fields in which they live and work. (p.453)

Perhaps most compelling in the line of research on adolescent literacy is the reframing of power, agency, and subjectivity. If used to inform policy, this research would say to policy makers, teachers, and researchers that adolescents are subjects with agency who exercise power through their literacy practices (school-sanctioned or not). Whether policy makers take up adolescent agency and power as value-added and reframe the subjective space of schools remains to be seen. We do know, however, that adolescents are challenging traditional understandings of community.

Changing conceptions of community: Adolescent literacy practices

In a recent (2006) MacArthur Foundation paper, Confronting the challenges of participatory culture: Media education for the 21st century, lead author Jenkins contends that adolescents are redefining the meaning of community. He notes
that many teens are involved in participatory culture which he defines as, “a
culture with relatively low barriers to artistic expression and civic engagement,
strong support for creating and sharing one’s creations, and some type of
informal membership whereby what is known by the most experienced is passed
along to novices” (p.3).

Jenkins outlines four forms of participatory culture that include:
affiliations, expressions, collaborative problem-solving, and circulations. These
forms of participatory culture echo Kress’ (2003) earlier discussion of the four
factors in literacy in the new media age. Briefly, affiliations are memberships,
formal and informal, in online communities (e.g., game clans, MySpace).
Expressions are evidenced in the production of new creative forms (e.g., digital
sampling, zines). Collaborative problem-solving is defined as working together
in teams, formal and informal, to complete tasks and develop new knowledge
(e.g., Wikipedia, alternative gaming technology). Circulations shape the flow of
media (e.g., podcasting, blogging).

The MacArthur paper makes clear the distinction in formal and informal
environments. Jenkins argues, “Informal learning communities are ad hoc and
localized; formal educational communities are bureaucratic and increasingly
national in scope. We can move in and out of informal learning communities if
they fail to meet our needs; we enjoy no such mobility in our relations to formal education” (p.9). This observation resonates when considered through a spatial lens. The earlier discussion of Deleuze and Guattari’s (1987) pack and mass multiplicities underscores how participants operate in informal learning environments. Following the figuration of the rhizome, they contend that packs are hard to hierarchize because of their temporary and shifting nature. However, Deleuze and Guattari may challenge Jenkins’ binaristic construction of informal and formal learning environments. They may argue that both spaces are heterogeneous, conflictual, and connected. Deleuze and Guattari express these connections as the “assemblage.” They note, in the assemblage, “…there are no points of positions in a rhizome, such as those found in a structure, root, or tree. There are only lines...The lines always tie back to one another. This is why one can never posit a dualism or a dichotomy” (p.9).

Leander and Rowe (2006) explain, “Whereas Deleuze associates representational logic with bounded unities and with binaries, he associates nonrepresentation, including rhizomatic relations, with difference” (p.435). Deleuze (1968/1994, as quoted in Leander and Rowe, 2006) suggests, “Movement for its part, implies a plurality of centers, a superimposition of points of
perspectives, a tangle of points of view, a coexistence of movements which essentially distort representation” (p. 435).

The understanding of a “plurality of centers” seems more evident in Jenkins’ (2006) discussion of on-line gaming and the realization that users may or may not follow the stated “rules” of the game. Like Darley (2000), Jenkins notes that an antagonistic relationship may exist between player and game designer in which the players identify and exploit the rules of the game (Freidman, 1995). Jenkins cautions, however, that users often fail to recognize how the game’s design and rules of the game structure our perception of reality. Jenkins defines the relationship between the designer and the user as the “transparency problem” and contends that that new types of learning are needed to address this challenge.

Rethinking literacy in the 21st century includes new media literacies. New literacies, however, are not the end of print; saying so would simply construct another binary. Jenkins argues, “Youth must expand their required competencies, not push aside old skills to make room for the new” (p. 19). Pedagogically, students need to be taught research skills, technical skills, and the ability to critically examine texts. Jenkins maintains that new media literacies should be seen through the “the social production of meaning;” therefore, we
need to think about “how meaning emerges collectively and collaboratively in the new media environment….the social production of meaning is more than individual interpretation multiplied; it represents a qualitative difference in the ways we make sense of cultural experiences” (p.20)

The research on adolescent and digital literacies has broadened the discussion about what it means to be literate. This line of research is beginning to impact educational reforms around the form and content of schooling as evidenced by an increasing number of high schools with digital literacies in their missions and increased attention to the field of adolescent literacy. People are listening, but caution is needed in uptake of the findings. A unitary assumption about the relationship between design, adolescents, and literacy practices may obfuscate the differences and the multiplicities in identities, purposes, and practices within the same place. First, more attention needs to be given to what individuals do in spaces and how individuals interact with designs to create spaces. Second, methodologically, we need to better understand how to capture this knowledge. This study seeks to add to these understandings.
Methodology

Chapter 2

With educational reform as a backdrop, this semester-long ethnography studied how educational environments are designed and how participants interacted with designs to create spaces. ¹ Using ethnographic methods, I studied the literacy practices of a high school class designed around multimodal textual practices, focusing on how this design of learning operated within the institutional norms of a comprehensive urban high school.

I approached this project as an ethnographic study because ethnography allowed me to make sense of social practices in the context of the participants’ everyday lives in school. I took Hammersley and Atkinson’s (1995) description of ethnography as a guide for my methodological choices. They contend,

Ethnography involves participating in people’s daily lives for an extended period of time, watching what happens, listening to what is said, asking questions -in fact collecting whatever data are available to throw light on the issues that are the focus of the research. (p. 1)

¹ I am using the term “environment or site” when referring to the place where I am conducting the study (e.g., classroom, high school) and I am using the term “space” when I am referring to the spaces that are constructed through the social practices of the participants at the institutional site.
This less rigid definition of ethnography was a good fit for the spatial theories and the construct of design that I used to filter the data, the analysis, and the findings. Using ethnographic methods, especially observation, the aim of this study was to produce a “full, nuanced, non-reductive text” (Taylor, as cited in O’Reilly, 2005).

Integration of theory/methods

In my study the theory drove the methods. I conducted my fieldwork using ethnographic methods of participant observation, qualitative interviews, and analysis of cultural artifacts, but spatial theories (de Certeau, 1984; Deleuze & Guattari, 1987; Lefebvre, 1991; Soja, 1989, 1996) and theories of design (Kress, 2003; New London Group, 1995) guided the choice of field site and data sources. The dialectic between theory, methods, and data mediated my thinking in this study. I considered the theory and methods as dynamic and integrated, not distinct.

I found deCerteau (1984), Lefebvre (1991), and Soja (1989, 1996) helpful when thinking about the material and conceptual designs of the school and X’s class and ways that participants interacted with the designs to create spaces. Deleuze and Guattari’s (1987) packs and mass multiplicities helped me think
about the construct of community. deCerteau’s tactics and strategies offered a more complex way to think about how participants negotiated designs. Deleuze and Guattari’s construct of deep structures allowed me to keep present historical and political contexts of race, class, and gender in schools. Attention to structures of power and dynamics of power was a common thread through the theories, but each offered a unique lens through which to view social practices.

Using multiple theoretical constructs and rhizomatic principles (Deleuze & Guattari, 1987) of connection (points on the rhizome connect to something else), heterogeneity (rhizomes are non-dichotomous), multiplicity (rhizomes have a multiplicity of lines and connections), rupture (rhizomes may break but start up again on old or new lines), and cartography (rhizomes as open, multiple entryways), offered me a robust and fluid way to examine episodes and analyze data. I wasn’t boxed into binaristic or dichotomous constructs.

Spatial theory as methodology

Spatial theory offered me a robust lens to consider social practices and the ways learning occurs with and against material and conceptual designs of schools.

I examined how the particular affordance of the physical space (e.g., classroom, school), the affordance of the mode (e.g., written, visual), the
affordance of the medium (e.g., print, digital), and the affordance of the learner (i.e., abilities, interests) intersects with designs of learning in school to create spaces.

I focused on the construction of spaces with the theoretical understanding that spaces are constituted through material and symbolic social practices. Leander and Sheehy (2004) assert that recent theorizing about space disrupts notions of ‘context as material place.’ They note, “Considering classrooms, prison cells, bedrooms, and suburban malls as readily apparent material settings, within which some focal literacy practice happens, drops away an entire series of interpretations regarding how material settings come to be realized as social spaces” (p.3). Following studies by Hagood (2004), Hirst (2004), Kamberelis (2004), Leander (2004), Moje (2004), Sheehy (2004), and Wilson (2004), this study worked “to recover the interpretive loss experienced when a context of literacy practice is considered to be background to the situated practices happening ‘within’ it” (Leander & Sheehy, 2004, p.3). I focused on the intersection of texts, tools, and participants in the context of school as co-constructors of social space.

Design as interpretive theory and methodology
Following New London Group (1996) I used the construct of design as a means to study how educational designs motivate and achieve different sorts of learning. New London Group posits,

The notion of design connects to the idea that learning and productivity are the results of the designs (the structures) of complex systems of people, environments, technology, beliefs, and texts... The concept of design emphasizes the relationships between received modes of meaning (available designs), the transformation of these modes of meaning in their hybrid and intertextual use (designing) and the subsequent to-be-received status-(the redesigned) (p.81).

As an interpretive theory, the flexibility of this construct allowed me to study how settings are designed (the purposeful, institutional design) and how spaces are continually in the active process of being designed (re-designing through the use of the participants). This understanding assumed the process of designing was active and on-going and constituted through the interaction of people, texts, tools, and environments; thus, spaces were constructed through different people’s interactions with designs.
Unit of analysis for the study

Because social spaces are constructed through the interaction of the participants and the design (i.e., context, tools, and tasks), I wanted to keep my focus on the participants’ use of design. I did not want to inflate or amplify one aspect of the space (i.e., participants, context, tools, tasks) more than another. Therefore, the unit of analysis for my study was the classroom with an explicit focus on the design and how participants interact with designs to create spaces.

Selecting the field site

To examine the interplay of texts, tools, and participants with designs and spaces, my unit of study was the educational context of a high school media class. Although I focused on one, 2nd period classroom in an urban high school, the “educational context” was not spatially bound by the physical walls of Room 312 nor temporally bound by the construct of 2nd period. I asked, “How is the educational context designed and how do participants interact with designs to create spaces.”

At first glance it might seem that this question would be best answered by studying and comparing two different schools, two different classrooms in one school, or an in-school/ out-of school setting. This would assume that by
examining two different settings that I could analyze the comparative strengths and weaknesses of particular curricular and institutional designs and offer a discussion of the merits (or weaknesses) of one over the other. This, however, would conflate the notion of setting with space. The classroom or the school is a material setting, a place, but it is also a space. Assumptions that the setting (e.g., a classroom in a school) is readily apparent or fixed or that there exists a unitary or shared understanding and expectations/predictions of what the setting means posits the setting as a container for the practices happening within (Leander & Sheehy, 2004). I approached this study instead from the theoretical stance that material settings (e.g., schools) may be designed for particular uses through institutional norms and purposeful thought (e.g., curriculum guides, technologies, architectural designs), but the way participants take up the design is not given a priori. How participants interact with designs is what constitutes the space. The space is constituted by the interaction of texts, tools, and participants thus, by definition, a “dynamically relational,” (Leander & Sheehy, 2004) fluid social field. It would, therefore create a false dichotomy to compare one classroom to another or one school to another. Spaces cannot be compared or generalized. So the questions for my study were about design and what actually happens in the spaces, looking across practices and individuals. It was not so
much about the best or worst space, but using design as a filter to explore the dynamics and interactions within those spaces.

The field site

My selection of the field site was secondary to my selection of X, the teacher and a key participant in the study. I wanted to study a class in a high school that was teaching and learning with and through multimodal textual practices. X was recommended to me by a fellow doctoral student who knew X socially. He said that X taught a media class that produced a school tv news show and that X was cool and might be willing to participate in the study. I contacted X through email, and he invited me to visit Adams High, the public school where he taught. I visited Adams during the school day to see X and his students at work. X took me on a tour, introduced me to students, and briefly described how his class worked. I said that I hoped to include students as key participants in the study. I wanted to observe, video, and informally interview students during class and I wanted to videotape more formal interviews with students out of class about X as a teacher and about the kinds of learning going on in X’s class and the school. He said that if the principal approved it, he’d be happy to participate in the study and said that I could ask the students if they were willing to participate given I followed procedures of gaining formal
consent. As he was teaching and learning with and through multimodal textual practices, X’s class met my selection criteria. Additionally X’s class was chosen because he and the students were open to my request to observe, note, and discuss their literacy practices and their experiences in the daily life of the class and the school.

The data sources

My general approach to data collection was ethnographic and included participant observation, qualitative interviews, and analysis of cultural artifacts. All my data were gathered through my interactions with the participants. These data included written observational field notes, videotape of classroom interactions, paper and digital artifacts of student work and curriculum materials, and formal and informal interviews with students, X, and some administrators.

I visited the school two to three days a week for 2 to 2½ hours per visit from January to end of June. I began each visit in X’s class but depending on what the students were doing, I would follow a group to film somewhere in the school, I would listen as students discussed their storyboards, I would observe as students edited video, I would scout locations with students, I would follow
students as they asked fellow students and administrators to act in their films, I would sit in on small group and whole class brainstorming sessions, and I would attend assemblies and award ceremonies. During these walks around the school and in the classroom, I asked questions, took notes, and filmed. During these times, I got to know the students and asked them questions about their literacy practices and their experiences in the school and in X’s class. These understandings served me well when I conducted more formal interviews, spoke to X about his designs of his class, and analyzed my data.

The students

Because I began my study mid-year (January 2008) I was entering a class where the cultural patterns and norms of the class were already well-established. The students, junior and seniors, had been working together since the start of the school year and several had taken classes with X before. I entered what felt like a friendly, open class where people knew what they were doing.

In a meeting before my first observation, X said, “I’ll introduce you and then you can tell a little bit about yourself and why you’re here. They’re going to try to figure you out.” As X introduced me to the students, I felt nervous and worried about how to explain what I was doing there and how I wanted to interact with them. I found that I was more concerned about making a good
impression on the students than I had been with X or the principal. I kept
tinking, why would these high school kids let me follow them around, write
down what they say and do, ask them questions, videotape them, and listen to
their conversations in and out of class. Having formerly been a high school
teacher, I worried that the students would see me as a teacher and guard their
words and actions or see me someone who might report them. When X asked
how I wanted to be addressed by the students, I asked that the students call me
by my first name because I hoped that that would make me less teacher-like. I
didn’t want to be “that White lady who follows us around,” but I am a White
lady and I wasn’t sure how I would be reflected in the students’ eyes. When I
told people (who knew or grew up in this city) where I was conducting my field
work, I always heard, “Oh, that’s a tough school.” I came to realize that “tough”
was a code word for Black or Latino. These statements angered me because none
of these people had ever (or at least not since forced desegregation through
busing in the 1970s) stepped foot in this school. I realized, however, that I too
had, at least figuratively, had never stepped foot into this/their environment. I
knew that I could “fit” as a teacher, but I didn’t want to fit as a teacher. I wanted
to occupy a different space.
To my joy and surprise, the students were open, kind, and willing to share. I collected hard copies of their work, their thoughts about the class, the school, and their education in general. I conducted informal interviews, one on one and in groups. I videotaped the students at work in the class, filming projects in different settings around the school, and in formal interviews. I developed a warm and easy relationship with the students.

The teacher: X

X has a big personality. He talks a lot, he jokes a lot, he sings a lot, and he’s in constant motion. Often after observing the 2nd period class I would stay during X’s prep period to write more notes or to begin to make sense of the data I was gathering. At first, I worried that X would find my presence during his prep period intrusive so I said that I would just sit and write; he didn’t need to engage with me. Soon, however, I realized that X didn’t use his prep period in the way that I had observed most teachers do (e.g., going to the faculty room, shutting the door, grading papers, making copies). Students came in and out. X worked with his assistants (seniors who had completed enough credits to graduate but needed the days in school for attendance) on the production of the tv show. The time during his prep period became a time when I could ask questions about things I was seeing in class, in the school, or with students. Our
conversations were informal, but I asked if I could take notes and quote things he said. I took copious notes and as will be evident in the following chapters, much of my research reflects my interactions with him. These data were a valuable source of information as I thought about designs of learning in X’s class and in the school. X’s strong presence in this study is intentional. Design is a key preoccupation of his and his design approach, like his personality, takes up a lot of space in the class and in my dissertation.

The methods

In this study I wanted to examine designs of the school, designs of X’s class and the participants’ interactions with these designs. These interactions sometimes reproduced and sometimes departed from available designs. In other words, the participants’ use of texts and tools for different purposes (their re-designing) created a multiplicity of spaces that sometimes jibed with the available designs around curriculum and instruction or the institutional norms of the school or the class and sometimes did not.

*Spatial theory as methodology*

The conceptual work of spatial theory (deCerteau, 1984; Lefebvre, 1991; Soja, 1989, 1996) and rhizomatic analysis (Deleuze & Guattari, 1987) is to break
binaries and to keep present the concept of multiples rather than singular
linearity. To try to understand how spaces were being constructed and to avoid
a reductive analysis of the school and the classroom as fixed/bounded/distinct
settings, I engaged Deleuze & Guattari’s concept of the “nomad” and
deCerteau’s construct of “walking the city” as an approach to study the field site.
In other words, I engaged with the field site (or walked the city) nomadically
(Deleuze & Guattari, 1987).

*Nomad walks the city*

In his chapter, “Walking the city,” de Certeau (1984) illustrates how an
environment can be differently understood based on perspective. He describes
the city as a concept that when viewed from above or on a map appears as a
unified whole but is differently experienced when walked as a pedestrian. The
walker at street level moves in ways that are tactical and never fully determined
by the plans of organizing bodies, taking shortcuts or meandering aimlessly in
spite of the utilitarian layout of the grid of streets.

My approach to the field site was to “walk the city,” but to break the
binary of near or far vision and by instead trying to understand and represent
the ways that participants engage with available designs to create spaces. To do
this, I used Deleuze and Guattari’s (1987) construct of the nomad as a theoretic/methodological tool.

Nomadism is characterized by movement rather than being fixed in one place. This movement across space is a way of life that is in contrast to rigid and static boundaries of organized states (Heckman, 2002). Deleuze & Guattari (1987) write:

The nomad has a territory; he follows customary paths; he goes from one point to another; he is not ignorant of points (water points, dwelling points, assembly points, etc.). But the question is what in nomad life is a principle and what is only a consequence. To begin with, although the points determine paths, they are strictly subordinated to the paths they determine, the reverse happens with the sedentary. The water point is reached only in order to be left behind; every point is a relay and exists only as a relay. A path is always between two points, but the in-between has taken on all the consistency and enjoys both an autonomy and a direction of its own. The life of the nomad is the intermezzo. (p. 380)

Analysis of data

Moving and thinking nomadically allowed me push beyond binaries (e.g., school-sanctioned/non-school sanctioned; in/out of school literacy practices;
formal/informal learning contexts). I attended to what participants were doing with texts and tools (what their purposes and goals were) to see the fluidity and the gray areas between settings and among designs and to ask whether the practices made sense in the context. In my analysis of the data, I wanted to keep my focus on the participants’ use of design. I did not want to privilege one aspect of the space (i.e., participants, context, tools, tasks) over another.

Using these constructs, I tried to follow the work, follow the learning, and follow the design to see where the work, the learning, and the designs lead (and what spaces were constructed along the way). As my own key instrument of data gathering and analysis, I reflected upon where I was directed and how I was directed (or by whom and by what I was directed).

I used rhizomatic analysis to consider the interactions among available designs (cultural rules and grammars) and the designing (or the real time use) by the participants. As discussed, rhizomatics is a methodology based on rhizomes, not rooted trees: one looks for contradictions and discontinuities within social life rather than for a cohesive rooted logic. (Sheehy and Leander, 2004, p.9). Points on the rhizome connect to something else in a horizontal network of connections and rhizomes may break but start up again on old or new lines (Deleuze & Guattari, 1987).
My analysis followed intense cataloging of data that included written observational field notes, videotape of classroom interactions, paper and digital artifacts of student work and curriculum materials, and formal and informal interviews with students, X, and some administrators. I looked across data sources and organized the data thematically. (See chart on the following page)
### Thematic organization of the data

<table>
<thead>
<tr>
<th>Designs of school</th>
<th>curriculum- texts &amp; tools technologies schedule, use of time flow of people, discipline, awards, expectations physical architecture press/public relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designs of X’s class</td>
<td>curriculum- texts &amp; tools technologies schedule, use of time flow of people, discipline, awards/expectations physical architecture X’s personality – what he talks about how he orchestrates</td>
</tr>
<tr>
<td>Spaces</td>
<td>Interactions with designs How are participants interacting with designs? What spaces are being constructed?</td>
</tr>
<tr>
<td></td>
<td>history race class gender literacy/ies texts tools participants</td>
</tr>
</tbody>
</table>
The analysis focused on understanding designs of the school and X’s class and the participants’ interactions with the designs. Rhizomatic analysis allowed me to consider the dynamics of the interactions which sometimes reproduced and sometimes departed from designs. To surface these tensions and illuminate spaces I selected significant events or episodes from my observations of the students in X’s class. (See map of the analysis on the following page)
Rhizomatic Analysis: Theory/Methods/Data

Episodes (e.g., advisory)

Rhizomatic analysis of episodes through spatial theories

deCerteau (1984)
- tactics & strategies
- walking the city
- spaces of enunciation

Deleuze & Guattari (1987)
- principle of rhizomes
- packs & mass multiplicities
- deep structures
- nomads

Lefebvre (1991)
- perceived, conceived, lived space

Soja (1989, 1996)
- illusion of opaqueness
- illusion of transparency

Episodes as designs

Participants’ interactions with designs to create spaces

Episodes as spaces
Representing the data

A goal of my dissertation is to try to represent the dynamic, non-linear, and connected nature of the interplay among participants, texts, tools and settings in the construction of spaces. To do this, the style and format are embedded in the content to convey meaning and to spatially/graphically represent connections among theory/methods/data.

Stylistically, I thought about the dissertation as a multimodal representation with multiple steams (e.g., audio, video, transitions, voice overs). To represent this, I analyzed the design of the school, the design of X’s class, the interactions with the designs (which constructed the spaces), and used footnotes as a sort of “voiceover” to flesh out what was going on in the spaces. I didn’t use footnotes as a means to cite references; rather, my use of footnotes followed the style of writers David Foster Wallace in *Octet* (1999) and Junot Diaz in *The Brief Wondrous Life of Oscar Wao* (2008). Wallace used the footnotes as a way to disrupt the linearity of the narrative and to reflect his perception of reality without jumbling the entire structure. In this video clip from an interview Wallace notes, “Writing about reality is difficult because text is very linear, very unified and I am on the lookout for ways to fracture the text in ways that aren’t
totally disorienting for the reader.” (See Charlie Rose clip: Start at minute 42.13 end at minute 43.03)

Similarly, my use of footnotes was a stylistic device to reflect the dynamism of spaces. I wanted the footnotes to add depth to what was going on in the spaces.

I used first person in the analysis. The data were represented through the participants’ words in transcribed written interviews and through videos of interviews and videoed observations of student work and interactions. Hyperlinks were used as a representational tool to illustrate the connections between conceptual fields and to illustrate how meaning was made and conveyed through the added dimensions of multimodality.
Adams High’s design: What’s the perspective?

The introduction to ATV, Adams High’s self-produced t.v. show, provides an apt visual to accompany a discussion of perspective in spatial theory and in design. In the ATV introduction, the viewer follows a Google Earth camera that pans from a view of Earth from space to the hallways of Adams High in a few short seconds. Through the camera’s lens, the perspective is one of whole to part or tranquility to tumult.

The importance of perspective echoes throughout spatial theory (de Certeau, 1984; Harvey, 1990; Leander & Rowe, 2006; Lefebvre, 1991; Soja, 1989). For example, “the city” (De Certeau, 1984), is a construct that’s differently experienced based on perspective. When viewed from above or on a map “the city” appears as a unified whole but when walked as a pedestrian the experience is different.

The walker at street level moves in ways that are tactical and never fully determined by the plans of organizing bodies, taking shortcuts or meandering aimlessly in spite of the utilitarian layout of the grid of
streets. These social spaces, or “spaces of enunciation,” are more open to human creativity and action. (p. 23)

This may indeed be the case, but maybe not. From the standpoint of design, one needs a more informed understanding of what those pedestrians are really doing. In other words, one needs a better understanding of the goals and purposes of the pedestrians. There may be occasions where the “utilitarian layout” of the grid of streets works (e.g., if you’re on a train or subway). Here, the design (a subway line) and the participants’ enactments within the design (travelling on the subway) mesh, producing a productive space (an efficient way for participants to get from point a to point b). So, the question in design is not about getting “around” the designed structure or context in a tactical way but finding ways to design structures or contexts that are flexible enough to productively accommodate a multiplicity of purposes, goals, and affordances that participants might bring. Instead of debating the point of origin of the perspective (e.g., top-down or bottom up), the use of design as a filtering concept considers how well (or how fluidly or effectively) participants interact with designs. This leads to the question: How do participants interact with designs? When we shift this question to think specifically about the field of education, the
focus becomes about designs and opportunities for productive teaching and learning spaces.

Getting back to the introduction to ATV, it doesn’t really matter whether Adams High “looks” like a unified whole from above or from outside the doors, what matters is the perspective of the participants\(^2\) who engage (materially and conceptually) with Adams.

In the following section, I’ll use design as a filter to interrogate de Certeau’s (1984) discussion of tactics and strategies\(^3\) through an analysis of the participants’ interactions with designs of the school and X’s class.

**Designs of the setting: Spatial boundaries**

At Adams, as with almost all schools viewed from a factory model of schooling, much time is spent on the design and implementation of policies to regulate both the flow of bodies and the flow of information. These policies are

\(^2\) This includes participants who are in the building every day (e.g., students, teachers, administrators), but it also includes the broader community of stakeholders (e.g., parents, central office personnel, community members, board of ed, alumni).

\(^3\) De Certeau asserts that the use of strategies is linked to institutions and structures of power where tactics are used by individuals to create spaces for themselves in structures of power.
paradoxical as they involve attempts at keeping some things and people out and keeping some things and people in.

*Adams High as a setting*

As a setting, Adams High is constituted through its material and conceptual designs. The material design of the school includes its interior and exterior physical structures and the accompanying “hardwired” elements (e.g., doors, windows, classrooms, hallways, lockers, technological hardware, wiring) that organize and regulate the flow of bodies and information. The conceptual design of the school is constituted through purposeful thought (e.g., planned curriculum and pedagogy), but is also constituted through the participants’ cultural references to what’s possible or not in the institutional culture of the school. In other words, the participants’ cultural model of school regulates their conceptions of what curriculum, pedagogy, and the teacher/student relationship looks like and can be. This social mediation may best be understood through the idea of ‘habitus’ (Bourdieu, 1984).

*X’s class as a setting*

If viewed on organizational chart, X’s class would appear as a subset of the school. In the temporal and spatial design of the school, X’s class fits institutional norms (classes scheduled by 40 or 60 minute periods) and spatial
boundaries (classes housed in room # 312), but what happens “in and during” his class pushes beyond the institutional norms of 2nd period. The material and conceptual design of his class affords opportunities for participants to operate in ways that create productive and dynamic teaching and learning spaces. These practices are part of his explicit design to challenge existing cultural models regarding the flow of bodies and flow of information in school.

These challenges to existing cultural practices are not unproblematically assimilated into the institutional norms of the school which operate according to more modernist or linear understandings of time and space. Designing his class around pliable temporal and spatial models of teaching and learning (e.g., multimodal literacy practices, flexible expert/novice roles) causes dissonance with the cultural expectations around time and space.

X and his students break physical and conceptual spatial boundaries of a traditional high school class and this causes friction with some teachers and administrators who question their movement around the school and the time that filming takes from other classes. In form and content, ATV is contentious. The best digital video projects done in class are included in their school tv show, ATV. These digital productions are supposed to be broadcast during advisory, but the broadcasts have become a source of dispute. As X explains,
Some teachers complain about the content say it’s too risqué, not enough about school, too exclusive (the whole school doesn’t participate), too ghetto. The headmaster repeatedly tells me that his teenage daughters hate the show. Some administrators and teachers say it takes too much time from academic work.

In later sections I will discuss these contradictions in detail, but because of a dynamic design and novel use of tools, texts and participants in X’s class there are fewer opportunities to revert to existing or a priori designs of what and how it means to teach and learn school. This dissonance, however, from a spatial analytic perspective, may be a prerequisite to create spaces for new forms of teaching and learning.

To examine social practices across the settings of the school and X’s class, I’ll use deCerteau’s (1984) theorization of tactics and strategies to filter the participants’ interactions with the designs. At the same time, I’ll consider whether his theorization of power makes sense within the construct of design.

I approach the analysis of tactics and strategies from the premise that all settings have designs, but leave open to investigation the question of how participants enact power within the designs. For example, do participants use
tactics to covertly open spaces for themselves in structures of power? The questions come back to thinking about design.

Adams High’s material & conceptual design: What’s in, what’s out?

To consider how Adams regulates the flow of bodies and information I examine Adams’s temporal and spatial design of boundaries (i.e., how to keep some things and people out and keep some things and people in.)

Flow of bodies: Adams High

The regulation of the flow of bodies at Adams centers on three factors: Keeping out, moving around, and keeping in. First, keeping out is the effort to buffer the school from “outside” influences (e.g., out-of-school, neighborhood rivalries among students). Second, once inside, the effort is to efficiently move people around the school and get people where they are supposed to be. Third, keeping in centers on the effort to get students to school and keep them there.

Keeping out of Adams High

Although the school tries to buffer itself from negative or harmful elements that are part of the context of some students’ lives, their “outside” lives come with them through the door. For example, one weekend Dwayne, a student in the class I’ve been observing, is picked up for a gang related weapons charge.
X tells me that he’s been expelled. A week later, Dwayne is back, cleared of the charges. The desire for the school to “be a safe haven” makes sense. The school acts ‘in locus parentis’ and the safety of students and staff is paramount. In an effort to accomplish this, the school’s design includes employing armed police officers, locking outside doors, requiring visitors to sign in, and prohibiting the wearing of gang ‘colors’ or ‘tags’.

These policies follow an explicit design that’s based on a linear and hierarchical understanding of power and the underpinning logic that a show of force and barriers to entrance will keep destructive elements out. However, a more nuanced view of the school’s space reveals a complicated interaction with both the explicit design and its goals. For some, these efforts may be a deterrent, but these policies fail to address deeper issues about the relationship between the educational institution and the communities of which it’s a part. It’s a tenuous compact to think that banning gang tags in school mitigates tensions among factions of students. The students’ resolve to keep things from boiling over is more potent than anything the school does to prohibit it.

This becomes evident while watching an episode of ATV. The anchors are a few minutes into the broadcast when they say, “We have to chill. What’s going down has to stop.” I ask X what they’re referring to and he says that
there’ve been huge racial fights and arrests. In the broadcast, however, there’s no overt reference to a specific incident. Although a public broadcast, these words are targeted to a particular group of students. As an outsider, this address isn’t meant for me nor is it meant for teachers or administrators. This is a self-regulating measure on the students’ part and not part of the school’s policy design.  

This example is evidence of the limits of binaristic conceptions of power (e.g., tactics and strategies) to examine participants’ interactions with designs. If the institutional goal is to keep out negative influences, then the policies they put in place are their strategies for doing so. However, when students broadcast a (covert/specific?) message to their peers, is that a tactic? De Certeau talks about the use of tactics as pleasurable (i.e., finding pleasure in being subversive), but would this act be considered subversive? If tactics are used by individuals to create spaces for themselves in structures of power (de Certeau, 1984) what does it mean if the students’ and the institutions’ goals are the same (e.g., to reduce violence among students). The advantage of using design as a filter is that is

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4I mention to X that ATV seems like an effective medium for these types of messages. X says that if they can get the production going faster, they can make the content more localized and timelier and they’ll be able to address more issues at the school.
offers the conceptual tools to disrupt unitary understandings of power and how participants yield power. In its design, ATV affords students “power” to send a message. The message isn’t part of the institutions’ strategy. It isn’t conveyed through institutional channels or by institutional minions, but the goal of the message isn’t to be subversive, so is it a tactic?

In another instance, the students are brainstorming topics for Public Service Announcement videos. Anton says,

We could do one about people using their cell phones for stupid things. It could be ‘Sidekick fiend or MySpace fiend’…People who are addicted to their Sidekick or addicted to MySpace… (pretending to text message)

‘Where you at?’ ‘Class, it’s boring’ or ‘What you doing?’ ‘Chillin.’

It’s so stupid. People don’t say anything. People spend an extra $20 a month to say ‘I’m chillin.’

Here Anton mocks this use of cell phones by his fellow students. In this case he doesn’t think it’s adding any value to the substance of communication. The medium may be novel, but the messages are the same as the old days of passing notes in class. Anton notes, however, that the medium has a price. People are “paying $20 a month to say, ‘I’m chillin.’
On another occasion, I’m in the first floor hallway with Nina and Chris. They’re waiting for one of their actors to shoot a scene for their film. The actor is late, so Chris decides to go get him. Chris is gone for a while.

Nina to Molly: Where is Chris? We need to start shooting.

Nina takes out her cell phone and calls Chris. Chris says that Mr. Cook is in a meeting and it’ll be a few minutes.

I witness several occasion of students using their cell phones in X’s class. If a student is absent, he encourages a member of the absent student’s team to call the person to find out why s/he isn’t in school. One student, Drew, is often absent. Nina calls him to find out why he’s not in school5.

X uses this as a strategy (within his class) to get the kids to be responsible to each other and to the group. X says, “I make it clear that the group members are responsible to each other. If someone’s absent call them and tell them to get to school. It’s a group grade and a group project. That way it’s not just me bugging them,” but it’s also a tactic when viewed in the institutional culture of the school where cell phone use is prohibited. His sanction of student cell phone

5 He answers; he’s at home. X says, “He used to be a star baseball player. He took Adams to the States, but now he’s a stoner. He got kicked off the team for always being absent. We (X and the coach) are on him, but he’s just buying time until he graduates.”
use is both as a tactic (he’s subverting school rules and forming new accountability channels from student to student instead of from teacher/administrator to parent) and a strategy (he’s getting students to be responsible to each other for the good of the class/project).

In the example of Nina calling Chris during school so they can start filming, the purpose of the call would be considered in line with school objectives (they’re trying to get their work done). There’s no defiance or pleasure in being subversive, so the cell phone use would be a strategy, but again, they’re breaking school rules. How would the administration see it? In X’s class there’s synchronicity between the available design and the students’ designing (how they use the cell phones). This isn’t as clear with the available design of the school.

A fixed binary that posits use of strategies as attached to institutional structures of power and use of tactics as used to subvert structures of power misses the point that a number of things can happen in spaces. Whether one uses a tactic or strategy is in support of the space. One’s institutional role doesn’t dictate. Instead of creating a binary where participants differentially enact power based on institutional roles, design allows us to think more about
constructing settings\textsuperscript{\textdegree} that afford opportunities for participants to create productive spaces (the power’s in the creation) and less about the use of power being attached to the assigned role (i.e., student, teacher, administrator) of the participants in the institutional structure.

\textit{Choosing (or not) Adams High}

Students in the district have some choice about the high schools they attend. In theory, the choice is made based on the best fit between the school and the student. In 8\textsuperscript{th} grade students and parents can tour potential high schools and apply to their top three choices. Schools reserve a certain number of seats for “walkers” and for siblings at the school. Other than the three exam schools and schools that serve specific populations of students (e.g., schools that exclusively serve English language learners), students are free to apply to any school in the district.

On their website and in their promotional materials, the district has an explicit design to guide students and parents through the school selection process. They include a school preview time, family information session, family information session, family information session,

\textsuperscript{\textdegree} To be clear, I’m using the word setting from the theoretical stance that settings can be designed a priori, but spaces cannot. Settings can be designed that are flexible enough to afford opportunities for dynamic practices among diverse participants, but how participants might interact with designs cannot be known beforehand. It is through the interactions that spaces are created.
showcase of schools, and a variety of publications. I ask several students how they decided to come to Adams. Two students’ answers included, “We never filled anything out, so since this is closest to my house the district sent me here.” The other two said, “My brother went here, so I decided to come here.” None said they followed any of the districts protocols for selecting schools. 7

Once inside Adams High

The 2006/7 school report card of Adams shows the student population to be 44.8% Black; 48.3% Hispanic; 4.4% White; 1.8%; Asian, and 0.7% Native American. In its public materials, Adams High promotes itself as a pilot school with two small learning communities and extended hours. What’s absent from the materials is the school’s tenuous operating status. Adams is categorized as ‘restructuring’ under NCLB and is under threat of closure from the state board of education. Citing small gains in the 2007/08 school year, the board of education has granted Adams another year to show greater progress. Adams has an edict to change, but it doesn’t have an explicit agenda to reform the

7 I myself live in the district and have tried two times to follow the protocol for school selection for my two children. On both occasions I was told that my children wouldn’t get either our first or second choice. At one of the district offices, the exact words were, “I can tell what I’m supposed to say or I can tell you the truth. Unless you start your kids in at K1 (age 4), you’ll never get in and even then there aren’t enough spots at the popular schools in your zone. Your kids won’t get in at K2 and 6th grade.”
school. There may be a mandate for reform, but what, where, and how are the changing?

Although a pilot school in the status of “restructuring” or “reforming,” once inside, Adams is organized around the institutional norms of a traditional U.S. high school. School starts at 7:35am. Students enter the building, go to their lockers, proceed to first period, and follow a schedule of 40 or 60 minute periods to the end of the day at 3:23. A bell rings to mark the end of each period and students have three minutes to get to their next class. During passing time, teachers, administrators, and police officers stand in the hallway hurrying students along, reminding them to remove hats, and prohibiting cell phone use. Classrooms, led by one teacher, are organized by desks, tables, chalkboards, whiteboards, and bulletin boards. Some classrooms have one or two computers. This brief depiction offers a cursory sketch of the temporal rhythms and spatial boundaries of the school setting. Later sections will more fully map the participants’ navigation of the setting.

*Keeping in at Adams High*

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8 This may be a root of the problem, while the state and federal government say that Adams must reform and restructure, it’s not clear how much autonomy or discretion they have to make changes.
A third element of Adams’s temporal and spatial design is a focus on truancy, cutting classes and the management of discipline referrals related to them. The 2007 Adams High school report card puts average student daily attendance at 83.6%, so conversely 16.4% is the average daily absence rate. What’s not clear is how these rates are calculated. Do they include students who come to school but then skip some classes throughout the day or students who come to school but then leave after lunch?⁹

Code Blue

The school’s effort to track students is evidenced during a conversation I observe between X and another teacher. Amy, a teacher in the learning center, walks into X’s class. She’s annoyed. She starts talking to X about kids cutting class and she mentions one kid who said he had been in X’s class, but wasn’t really. She says that she spends about two hours a day trying to track kids down. X asks her if she’s used “Code Blue” (He first called it “All my children.”) Later, I ask X what Code Blue is.

He explains:

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⁹ X says that lunch is a contentious time in the school day because students get together and make plans. For some, this includes a plan to leave school for the rest of the day.
It’s a computer program that I developed where all the teachers can keep track of the students’ referrals and discipline. It’s a panoptic view. Before no one knew what was going on with the kids because everyone kept all the forms in their own filing cabinet. No one knew what was going on. Kids would be falling apart but know one knew it. The old procedure was that you’d write up a kid for detention. You’d go to the office and make three copies and put them in peoples’ mailboxes, one for the assistant principal, one for you, and one for the kid’s file. But nothing would ever happen. Teachers spent about 15 minutes filling these forms out and they got sick of it so they wouldn’t do it anymore and the kids knew it. It would take forever. Now if a kid tells me to f..k off. I just go right to my computer and it’s there immediately. The administrators use it now so they can handle things right as they come up. I did it to give teachers some control, break some of the teacher apathy. To make a better culture. To build a more a village. I had to battle Williams (the principal) at first. He hated the idea. He likes to keep everything close to the vest, but now he loves it.
As a system, Code Blue is designed to afford teachers and administrators the ability to track students through an efficient and unified system. Using available technologies, X hopes to change the individualistic and isolated culture of one teacher holding all the information or knowledge about his/her students. X’s motivation for designing Code Blue is to take care of students “like a village,” but this is not necessarily how other participants use the program. An ethic of care or a culture of community is not hardwired into the program. Whether Code Blue is a space of collective responsibility is determined by the way participants enact the design.

When X asks Amy if she’s subscribing to “All my children/Code Blue,” Amy says yes. X says, “You’re checking, but a lot aren’t. All teachers need to subscribe to central email, but I know they say the district’s central site is a dumping ground for notices and there are always problems with attachments.” The next time I visit Adams I see a notice by the sign in sheet in the office that says “All teachers should check Code Blue.”

X’s description of the program as “panoptic” evokes either a “Big Brother is watching”/Foucaultian connotation of surveillance or a caring, communal “All my children.” X assumes that the technology will be used in a way to get a better sense of how students are doing across classes, but assuming a linear or unitary
enactment of a design obfuscates the differences and the multiplicities in identities, purposes, and practices within the same site. Creating a new program or using new technologies is not a panacea. Leander (2008), citing Bruce and Rubin, 1993), calls for “situated evaluation” of technology in use. He notes,

Situated evaluation is a critique of technocentrism, pushing us to shift our focus from the technical tools to the social practices through which the possibilities of such tools are realized. How the features of the technology interact with human needs, expectations, beliefs, prior practices, and alternative tools far outweighs the properties of the technology itself.

Code Blue is an example of how a setting or site may be designed for a particular purpose, but participants’ enactments within the design can’t be known a priori. As Leander (2008) asserts,

Why technologies do not work according to the ideals of developers, or do work in unanticipated ways, often has little to do with the tools themselves and much more to do with the relations of technologies to what we might consider the surround (p. 35)
Code Blue exists in the “surround” of an institutional norm where “keeping track” of students means accounting for students’ embodied movements across the school day (to document adherence to their schedule) and the conceptual tracking of behavior (to document infractions of school rules). The name “Code Blue” conjures the image of a patient with a life-threatening emergency. In X’s conception, the program would be like a medical chart where teachers and administrators could see a history to better “treat” the student. But if the chart is simply a recordkeeping tool, the impetus toward communal and healing action is lost.

In this case, X’s goal to use the technology “to take care of students like a village,” bumps up against a “surround” that focuses on keeping control of behavior and movement. Code Blue is a materially different design than the filing cabinet organizational structure, but in its use do participants create a space that transforms social practices?

Using theoretical tools from spatial theory (Lefebvre, 1991; Soja, 1989, 1996), one can ask questions about Code Blue as a (perceived and conceived) space. For example, does the participants’ focus on idiosyncratic, individual

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10 I find the analogy to medical treatment problematic as it pathologizes student behavior.
student behavior (engender an illusion of opaqueness) that creates a (perceived) space that obscures more macro, systemic factors? Or, does the design of the program contribute to an (illusion of transparency where a unitary system creates a (conceived) space that obscures multiplicities in identities and purposes?

Educational issues are often conceptualized in this binaristic way. In trying to determine the “root” of the problem, policy makers ask: Is it faulty design or participants’ misuse of the design? Through the filter of spatial theory and rhizoanalysis (Deleuze & Guattari, 1987) these questions are moot. Neither the design not the participants’ enactments within the design are fixed or static; the space that’s created through the interplay of the design and the participants is what needs to be assessed as productive or unproductive.

As Lefebvre (1991) asserts with “social space” and Soja (1996) echoes with “thirddspace”, space is “simultaneously a social product (or outcome) and a shaping force (or medium) in social life” (Soja, 1996, p.7) therefore, “social space is always heterogeneous and conflictual” (Leander, 2002, p.9). The “fault” doesn’t rest in one place. Or, as Deleuze and Guattari (1987) posit, the answer “is reducible to neither the One nor the multiple…” (p. 21) There aren’t binaries
which are defined by a set of points and positions, rather there are only lines that connect to something else.

Through rhizoanalysis the question has to be contextualized; the tool and the user can’t be considered absent the context or the setting. Whether the space is productive or not, or maybe how it is both at the same time according to perspective and participant, is based on the interplay of the tool, the participants, and the setting. As Soja (in Sheehy & Leander, 2004), asserts, these social forces cannot be theorized as aspatial or unconstrained by their specific location and context. (p. xii). Next, I’ll examine how these forces interact in X’s class.
X’s material & conceptual design: What’s in & what’s out?

To consider how X regulates the flow of bodies and information I examine X’s temporal and spatial design of boundaries (i.e., who and what’s allowed in and who and what’s kept out).

*Flow of bodies: X’s Class*

X’s class is materially a part of Adams High. His classroom is on the third floor and his students follow the same schedule as other classes, but the way X designs the class and the way the students interact with designs creates a space that breaks spatial boundaries and temporal rhythms of the school.

*Entering X’s class*

After negotiating multiple layers of bureaucracy to obtain permission to conduct my study in this district, gaining entry into X’s class was unexpectedly easy. In an email before my first visit, X described his class this way:
Molly-
Just dropping you a line to see when you would like to touch base,
phone/visit...whatever.
I run a media lab at The Adams High School with 5
distinctive areas. Access is granted based on talents, seniority,
trust...

1) Lecture Areas (ALL)
2) Computer Lab (ALL)
3) Radio Station (Must show proficiency in radio/audio engineering
4) Studio (TV show hosts and crew only)
5) VIP Room (Senior editors, veteran students, trusted kids)

I would love to give you a tour and introduce you to kids for
interview purposes but we need to talk first.

Chat soon,
X

The first thing I notice upon entering X’s class, is the buzz of activity and
movement of students around the room. 2nd period has just begun as X greets me
and begins to show me around the room. (Click here for video of Room 312, Part
1 and Room 312, Part 2 )
As described in the email, there are five areas in the room although they are not as physically distinct as I imagined.\textsuperscript{11} The front (the computer lab) is organized with computers lining two walls, a table in the middle, and a green screen (the studio) for filming. In the back (the lecture area) are five tables, X’s desk, and a small, portable white board. Off the main room are two smaller rooms. One is a radio station.\textsuperscript{12} The other is the VIP room with five computers loaded with more sophisticated software and a couch.

X describes the classroom as a media lab. The 2\textsuperscript{nd} period class I’m observing is called “tv/media,” but X says, “It’s really about making videos.” The ten students in the class are juniors and seniors. X explains the reason for the small number of students saying,

We started with about 35 kids, but they dropped or were weeded out when they found out how much work they were going to have to do and when they saw that I was tough and demanding and had high expectations for what they had to accomplish.

\textsuperscript{11} I soon realize that they aren’t as conceptually distinct either.
\textsuperscript{12} In later sections I’ll discuss the radio station in more depth as it offers an apt metaphor for how the dynamic processes in X’s class are constrained by the school’s design. In the radio station, students program music and run the station, but it’s not broadcast because the school doesn’t have an antenna on the roof.
Depending on the activity, students move around the class (and the school) to write scripts, scout locations, shoot film, digitize, and edit. Based on their production schedule, groups are working on different aspects of the project each day. One group is out filming, another student is at a computer editing film shot the previous day, another student is searching Google images for footage, other students are recruiting actors, other groups are downloading music and recording voiceovers. X describes the design saying,

They (the students) have a finish line/an endgame, but the process to that isn’t scripted. There are checks along the way. I try to keep the kids at about the same time line in preproduction, but they are all doing different things and I’m conferencing with them in groups and individually.

Students use the entire school as their workspace. Movement outside the classroom and inclusion of other members of the school community are elemental to the class. Students shoot film in all areas of the school. Video projects include students from other classes, teachers, administrators, school police, custodians, and lunch staff.
X issues “press passes” that identify the students as staff members of ATV. The press pass, however, signifies more than a simple “hall pass” to show teachers and administrators that they have permission to be out of class. X explains the significance saying, “The kids don’t call the class “T/V media” they call it “ATV.” The press passes are a big deal. I’m tough and demanding, so the kids who are part of the class are perceived as tough or able to cut it.” In a later interview, Kim corroborates his assertion saying, “I want to get through X’s class because then I can say I did it. As a senior I can say I got through that class.” Both Kim and Chris say that X has high expectations, but they experience it differently.

(Click here for video of Kim, Part 1 and Kim, Part 2)

(Click here for video of Chris)

In addition to the students’ use, the press passes serve as an organizational tool for X to manage the flow of bodies. On the wall is a chart with space where the students’ press passes can be magnetically attached.
<table>
<thead>
<tr>
<th></th>
<th>Period 1</th>
<th>Period 2</th>
<th>Period 3</th>
<th>Period 4</th>
<th>Period 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures of kids still working on projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unassigned kids- pictures of kids who are ready to be reassigned to new project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X explains the chart:

I use this system because I need things to be visual. It’s a good system because I can quickly see where kids are in their progress and there’s no downtime. If you have kids hanging around between projects, that’s when the problems happen. I keep them moving. The kids who are unassigned will be assigned in new groups to start new projects. I try to give them different roles (director, producer, grip) than they had before.
X’s dynamic and productive design to maximize student learning time (and to mitigate discipline problems) is in contrast to other classes in the school. This is evidenced one morning while I’m observing a group film in the hallway as other classes are in session. Darnel, a senior, walks out of his English class and says to the group of students:

I’m so done with that class. I’ve been done with that class for four months. They’ve been working on the same piece of writing for four months. I wrote something the first week and the teacher was like, ‘That’s so ill.’ It’s been on the wall since then. I’ve just been sitting there watching them for four months.

This example speaks to a fundamental difference in the way students operate within learning environments. Different conceptions of time and space are evident in the grammar, or underlying logic, of X’s class and the school. In X’s class, the flow of bodies (or the movement of students in time and space) is predicated on whether their movement is purposeful and productive. Rather than driven by a linear series of steps to be followed by all learners, in X’s class, the activities create opportunities for and nurture diverse textual engagement and production (Stevens & Dugan, 2009). When a student’s work within the
group is finished, he/she moves on to work with another group or assist in the production of ATV in another way. There is no manufacturing of busyness, busywork, or killing time until the rest of the class is done.

In this more flexible design, learners make connections with other students, other locations, and other members of the school community in ways that challenge the institutional design of one room, one class, one teacher, one objective, and one unilateral outcome.

*Who’s really in this class?*

It becomes clear in my first few days observing X’s class that a lot of students seem to “visit.” The line between students who are enrolled in the class and those who are not is blurred. Some students have roles as “assistants,” others are students who’ve graduated and come back seeking advice or help, and others are students who are probably missing from another class.

X’s interaction with these groups of students is varied. When the “interlopers” (or students who should be in another class) enter, X asks them where they’re supposed to be and if they are supposed to be in another class, he directs them to go there. What often happens, however, is a student response like, “OK, but I just want to tell you about an idea for ATV.”
The second group, the “assistants,” is two seniors named David and Justin. Although both are named assistants, their responsibilities and relationship with X differ dramatically. X describes David as, “The smartest kid in the school.” David has all the credits he needs to graduate, but his number of absences puts him at risk to not graduate. David is X’s technology expert and operates as an intellectual partner to X. Sarcasm, humor, and irreverence are the currency of their relationship, but David has real responsibility and influence in the class. For example, on one occasion, X tells David to come up with a list for the $1500 line item in they have in the school budget. Much of David’s work is self-directed; he works on projects at home, on the weekends, and in the classroom when X is absent.

Justin’s (X calls him Young Hero) role is more limited in scope and influence. He’s responsible for monitoring the status of the filming equipment. Students go to Justin to sign out cameras, lights, batteries, etc. Where David is independent, Justin assists at X’s request. For example, X designed an online portal for school’s master calendar. A retired headmaster from another school in the district, who’s now “helping” at Adams, has been appointed by the principal.

David is also the only White student in the class (and one of a few in the school). X talks a lot about his own schooling experience in private K-12 all-boys’ schools. There is nothing overt about a “boys’ club,” but there’s a vibe.
to complete the master calendar. The retired headmaster, however, “always
forgets” how to use the online portal, so Justin or X have to walk him through it.
On this day, after Justin/Young Hero walks the retired headmaster through the
program, the headmaster comes over to X and asks,

“What’s that kid’s name?”
X says, “Young Hero”
He says, “What?”
X says, “Young Hero.”
He says, “What?”
X says, “Justin.”
He says, “That kid saved my life.”

This brief dialogue reflects not only slight tone deafness on the part of the
retired headmaster (he doesn’t acknowledge Justin/Young Hero’s name), but also
on the part of the principal in appointing this person for this job. This is another
example of the principal’s “use” of X without appreciation of his class time or the
work being done by him and his students during class. X’s purpose in designing
the online portal was to increase administrator efficiency, but all efficiency is lost
if the administrators choose not to learn how to use the technology. Research
(Lankshear & Knobel, 2003) finds a prevailing assumption that students, as “digital natives” (Prensky, 2001), can be asked to help less proficient teachers and administrators in accessing new technologies. It’s often framed as a mutually beneficial learning experience as it serves to blur institutional expert/novice roles in the classroom and allows students to demonstrate skills and knowledge acquired out-of-school. However, this assumption misses the point of multiliteracies (New London Group, 1996) in both form and content because it focuses on the technological tools while ignoring the dynamic textual and social practices that could be “occasioned” (Davis & Sumara, 1997) through (or with) these tools to transform learning spaces. It is not the same thing for a teacher to ask a student to help work the lcd projector simply because the teacher chooses not to learn how as it is to ask a student how digitally mediated texts affect their writing, reading, and research.

The third group of students who blur the boundary of “student in X’s class” are the graduates who come back seeking help or advice. During one school day, Martin, a boy who graduated last year, comes in and asks X for help uploading music to Facebook. Martin says he’s entering a rap contest and people will have to vote online. X says they should do a full campaign, print, online, etc.
Although fully coherent, Martin’s eyes are red; he looks stoned. X says, “Dude, you’re mad stoned. Don’t be walking around here like that.”

In this case, even though the student comes back, X still interacts with him in ways that carry through what that space is supposed to host and what it is not. The boundary of “student in X’s class” may be blurred, but X’s assertion that the former student “shouldn’t be walking around here like that” asserts a border that serves a function of the space.

On another occasion, X talks to Stephen, the student who directs the radio station, about a former student who’s trying to put together an advertising company.

X says,

Big Mark (a senior and anchor of ATV) wants to do it. You need to think about doing this. After college I did this. We went around to local businesses and asked about hiring us to do their advertising. We made a commercial for a local business. The guy used it on cable. You could make about $2500 for a 30 second commercial. Mark’s too talented to be

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14 X is unpredictable and his reaction to things is often unexpected. In this case, this is all he says—no lecture, no further admonishment. In another instance, I’ve seen him chastise a student at length for wearing her coat in class.
flipping burgers. While other kids are psyched making $10.50 at Foot Locker you guys could be making $35 an hour.

The relationship between X and these former students follow a different chronotope (Bakhtin, 1981) than the normative “time-space” relationship among teachers and students. Originally a concept used in literary analysis, the chronotope is a unit of analysis for the way time and space are experienced by a character. For example, Vadeboncoeur (2005) notes adventure time in literature is framed by two events, “falling in love and getting married. All the action occurs between these points … Space and time in adventure literature are generic. There is an “interchangeability of space” (Bakhtin, as cited in Vadeboncoeur, p. 125). The chronotope of Adams High is framed by two events: entering as a freshman and graduation. The experience of time (freshman to senior) and space (the high school) is driven by the mantra “graduation for all.” The chronotope of Adams is fixated on this outcome or end point rather than on the events and actions that construct the chronotope of the student.

Beyond 2nd period
The chronotope of X’s class is juxtaposed with the chronotope of the school. The flow of bodies in X’s class construct a space that is transformative in the way time and space are experienced. The chronotope of X’s class is non-linear; space and time are elastic as these three groups: the interlopers, the assistants, and the graduates extend and expand what it means to be “in 2nd period.” Lortie (1975) discusses the role of former students returning as sources of praise and validation for teachers’ efforts (e.g., to say what they learned or how they enjoyed the class), but temporally, it’s about the past. In this case, the returning is more active and immediately impactful. The students return (thus breaking traditional temporal and spatial boundaries), but they engage with X in ways that are actively engaged in the present.

Radical collegiality

This expanded understanding of student and class can be examined through Fielding’s (1999) construct of radical collegiality. Fielding posits a changed teacher/student relationship saying,

On this view, students enter the collegium, not as objects of professional endeavor, but as partners in the learning process and, on occasions, as teachers of teachers, not solely, or merely as perpetual learners. Collegiality on this account is radical and inclusive not just because
boundaries become less securely drawn, but also because the agents of the reconfiguration turn out to be those traditionally regarded as the least able and least powerful members of the educational community....finally, there is a view that education in a democracy is necessarily characterized by a radical and universal inclusiveness which embraces, not just other teachers and not just one's students, but also parents and other members of the community in whose name the practice of education is both funded and intended. On this view, the collegium is further enlarged to include more fully and more energetically those who have for so long merited little more than contempt, indifference (cf Burbules & Densmore 1991) or the lip service of an unreal and unresolved partnership. Radical collegiality, thus, becomes the dynamic of the dialogic school, a school whose boundaries and practices are not the prisoner of place and time, but rather the agent of an increasingly inclusive community.

In the actions and events described between X and some of his students, one might infer that they have created a space of radical collegiality. They have challenged the static, linear chronotope of the high school; however, this shouldn’t imply, ipso facto, that all of X’s students are members of the
“collegium.” In its design, radical collegiality’s goal may be to be an “agent of an
increasingly inclusive community,” but this may not be how all students interact
with designs. What constitutes a productive collegial space in X’s class is largely
built from idiosyncratic relationships among the participants. What makes it
radical may not make it inclusive. The lack of uniformity is what makes it
productive. The outliers may be the ones who create the more generative space.

Whose kids are these?

After observing how X interacts with students across the school, I ask him
about how much responsibility he feels for the kids that aren’t in his classes.

X: I feel like it’s part of my responsibility as a teacher. I care about the
school so I feel a responsibility to all.

Molly: Do you think most teachers feel this way. Is this part of the
culture of the school to think ‘These are all my students’?

X: About 50%.

Molly: How do you handle students who challenge or break the rules of
the classroom or the school?
X: A lot of these kids have an oppositional identity. There are different types of breaking the rules. I’m vigilant about the little things. Wearing a hat in class or in the hallway is different from sneaking in the bathroom to smoke. Wearing a hat (in front of a teacher) in class or not taking it off when asked is blatant. They’re defining themselves as “I’m not a good boy.” There was a big incident a few years ago where I asked a kid to take his hat off. He wouldn’t take it off, so I took it off him and said he could have it after class. The kid went crazy. He came up behind me and I turned around and he pushed me. He could have been expelled, but I came up with the idea of having a “trial.” We had a jury of kids from the school. One of the administrators acted as the judge. The parents knew about it. It was taken very seriously. Everyone agreed to stand by the decision. The student jury found that the kid was wrong, but they didn’t think he should be expelled. Instead they said that he should have to

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X uses the phrase “oppositional identity,” but he doesn’t specifically state that this is a reference to work by Ogbu (1991). Ogbu suggests that an oppositional identity and culture has developed based on the history of most Blacks in the United States. Ogbu clarifies the concept of oppositional identity by using the term cultural inversion (Ogbu, 1991). Cultural inversion refers to the process whereby symbols, whether it be dress or language, and behaviors that are associated with a dominant culture are deemed inappropriate for a subordinate culture (Fisher, 2005)
I come to school for a month at 7 am and stand in the front hallway and remind all the kids entering the school to take their hats off.

I want them to think about the consequences of their actions. If I have a rough day at work, I don’t go home and beat up my wife. There is a lot of anger in some of these kids. They have a right to be angry. A lot of their fathers are gone or in jail. But what are the options? They can either look at their history – from slavery- and say ‘this sucks,’ they can see themselves as a victim or they say I’m going to change things. I’m a strong Black man. I told the kids that I can’t allow that kind of thing to happen. That this is my job. I have to do my job, under the guise of representing Adams. I said ‘It’s a matter of pride.’ I try to show them that it’s an affront to my pride. They understand what I mean by that.

Molly: Do they ask you why you care?

X: I think the kids know that I care even though they don’t come out and say it like that. A lot of the kids that I’ve had the most trouble with are the ones who keep coming back. My whole advisory is filled with those kids,

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16 When X was telling me this story, it seemed authentic and positive, but now it sounds somewhat contrived. I think that it sounded powerful coming from X because in the context of his class and in the genuine interactions he has with his students it’s plausible, but in the hands of someone else it could be a joke and could be construed as racist.
even that kid with the hat I just told you about. We get along now. He’s in my advisory. Jack (an assistant head) said the same thing. The really difficult kids will come back. They’ll be crying with Jack in his office.  

X’s assertion that some students have an “oppositional identity” could relate to research by Willis (1977) and “the lads.” In his study, Willis argues that the “lads,” a group of White, working class boys in a British school, know how to achieve, but choose to reject school and form their own ‘counter school culture.’ These two constructs seem parallel, but is an “oppositional identity” only a racial construct or is it germane to any marginalized group or group that feels marginalized? Are the “lads” enacting an “oppositional identity?” Could X’s students be “lads”? Can X be a “lad” in his opposition to institutional norms but without the (marginalized) status of being low or working-class or can X have an “oppositional identity” without a (marginalized/non-dominant) racial status? These questions seem important to consider when examining the deep structures (Deleuze & Guattari, 1987) /historical contexts of race, class, and gender while at the same time thinking rhizomatically and mapping social practices as “open and

17 I mention to X that all the people (other teachers and administrators) he talks about as being effective with students are male. He says, “Yeah, maybe, I never really thought about it.” He doesn’t elaborate any further.
connectable in all of its dimensions; detachable, reversible, susceptible to modification…” (Deleuze & Guattari, 1987, p. 12). Additionally, these questions seem important to consider when using design as a filtering concept to examine the constructs of community, collegiality, and collaboration.
Adams High: Learning community?

At its current location, Adams High is housed in what was an electrical plant. The building is a five story, brick structure. Classrooms are on the 3rd, 4th, and 5th floors. The main floor houses offices, a child care facility for the children of the teenage students at Adams, and an auditorium. In the basement is a gym, locker rooms, and weight rooms. On the 2nd floor are the cafeteria and the library. There are two sets of staircases at either end of the building leading to each floor. Each floor has a long hallway with rooms on either side. The school has been at its current location since 1989. In its interior and exterior architecture, the school is similar to others of the same era.

As part of its reform plan, Adams sought to create small learning communities to mitigate the isolated nature of the floor plan.

X explains the school’s design:

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18 Each time I visit Adams I see two child care providers pushing strollers with six children each (and there are more infants in the center itself). X tells me that teen pregnancy is a serious problem at the school. He says, “It drives me crazy when other teachers go up to pregnant girls and rub their stomachs and say ‘Oh it’s so cute’...No it’s not cute, you’re f...ed.”
Each floor is supposed to be a small learning community. There are two assistant heads, Jack and Ms. Spencer. Each floor has a name the 5th floor is called The Penthouse. The 4th floor is The Shack. The concept hasn’t really worked out though because there aren’t enough resources. The concept was that all the kids on the 5th floor would have their classes on that floor. Their guidance counselor would be on that floor. They’d have advisory on that floor. But the problem is that there aren’t enough science teachers, there aren’t enough foreign language teachers, so the students have to change floors.

Advisory

This change in the material design of the school is accompanied by an attempt to foster a feeling of community through advisory.

X explains:

The advisory is two days a week. You’re supposed to be with the kids all four years. The major push was to get seniors ready for college. They came up with a curriculum, but everyone ignored it. There were lessons in the curriculum that teachers could use - like team building and getting to know you - it was kind of phony. They used to show ATV in advisory,
so then at least the teachers would have something to talk about, but
Williams stopped that. I started asking ‘What’s the purpose of advisory?’
I wanted to expose what’s really going on like kids braiding each others’
hair, but my mom is kind of in charge of it and she asked me not to. It’s
supposed to foster a feeling of connectedness, where the kids feel
connected to a teacher – that teacher would be the go-to person. That
person could intervene if a kid is falling off the grid. That person would
know everything about that kid, family, relationship, etc, but some
teachers aren’t interested in that. They don’t see that as part of their job.
They don’t have that kind of bond with their students.

X’s discussion about advisory addresses core questions about the role of
the teacher. The design of advisory assumes that teachers are more than
academic specialists who impart knowledge, but this assumption is faulty when
some teachers (and policy makers) valorize the role of the teacher as subject area
specialist. The design of advisory assumes that teachers have to know their
students and have a bond with them in order to teach them, but discussions of
the most efficacious teacher/student relationship or “what works” is often
reduced to a divisive posture of a singular focus on subject matter or a focus on
students’ interests and needs. This debate, however, obfuscates multiplicities in teacher identities and ethics of care.

As a concept, advisory is designed with a unitary/mandated manner of care. The “best practices” of advisory are decontextualized and at Adams, the conceived space of advisory is incongruous with perceived space (Lefebvre, 1991) of the institutional norms, the culture of education, and the role of the teacher.

Using design as a filter allows me to examine how the participants’ interactions create the space of advisory. In some cases, the interactions may be synchronous with the school’s explicit design but may be asynchronous in others. The space created through these enactments has the potential to be meaningful or wasteful, but this is solely determined by the participants’ interactions with the design. As in the discussion of tactics and strategies (deCerteau, 1984) these interactions do not hold essential values of “good or bad.” It comes back to the design and to the users’ goals in a particular space. As in Code Blue, unitary assumptions about the relationship between participants, power, texts, and tools may obfuscate the differences and the multiplicities in identities, purposes, and practices within the same place.
“Crew up”: Is X’s class a pack?

In X’s class, a different logic guides the concept of community. Deleuze & Guattari’s (1987) construct of pack and mass multiplicities provides a means to theorize X’s design.

X describes differences between the school and his class saying,

This school has no sense of community. No culture of community. It’s like a hotel. You go from room to room and then you check out. This school is having a huge dropout problem. We are down from 800 students to 550. That many kids have dropped out and of the 550 here, 540 are on the failing warning list. My high school had a morning assembly every day for the whole school. There was a time for student announcements. Kids would get up and say their name and then, ‘I lost my jacket, let me know if anyone finds it. Or, Hi, Jonathan Burke, we want to start a poetry club, let me know if you’re interested.’ The students pushed each other. It was like we were in it together. That’s why I like to say to my students ‘crew up.’ We’re like a crew. We can only get things done if we work together. It’s project based learning. My class has more of a club feel. I don’t really assign any homework. They
wouldn’t do it. They don’t open their backpacks at night, but they’ll play video games all night. I have a kid who lives in a shelter but he has two game systems. Those things aren’t cheap. It’s a matter of priorities.\footnote{X says they’re a “crew” and in the context of his class or in the context of his class v. the school, they seem to be, but the connections X makes between his teaching practices and conceptions of school and his own high school experience obfuscates the underlying difference he perceives between himself and his upbringing and his students and their upbringing.}

In my observations and interviews with students, the assertion that “we’re a crew” is validated. In X’s design of curriculum and instruction, collaboration, problem solving, active participation, and collective accountability are organic to the activities. (Click here for video of Chris)

In discussing Deleuze and Guattari’s (1987) theory of pack and mass multiplicities, Canetti (cited in Deleuze and Guattari, 1987, p.33) maintains that mass (“crowd”) multiplicities are characterized by, “concentration, sociability of the aggregate as a whole, one-way hierarchy, organization of territoriality or territorialization” (p.33). Packs, on the other hand, are characterized by “dispersion, qualitative metamorphosis, impossibility of a fixed totalization or hierarchization” (p.33).
A difference between the design of advisory and the design of X’s class can be considered using these terms. The goal of advisory is to foster new connections between teachers and students. Because new connections are formed in any context, this will happen, but the design’s logic is failed in the assumption that a particular outcome (or a particular type of student/teacher relationship will be formed). As a program designed and mandated by administration, advisory is imposed on teachers as a top-down initiative for the whole school. In this way it is a “mass (crowd) multiplicity.” The design is “concentrated” and inflexible. With a stated goal to “get the seniors ready for college,” what advisory is really meant for is test prep and SAT review. While the explicit design of advisory imagines a more flexible, dynamic space for the teacher, the implicit design re-positions teachers as academic tutors. There are differences among what the students, teachers, and administrators perceive should be the purpose of advisory; thus, as a space, advisory may be productive, unproductive, or productive in ways not considered by the designer. There is no unilateral outcome.

X’s class operates more as a pack because of the flexibility in expert/novice roles, user-driven access to knowledge and information, and shifting activities based on the goals or needs of the project. This is not to say that there are no
hierarchies in X’s class. X is the leader (and alpha male) of this class. Deleuze and Guattari (1987) make clear that, “there is no more equality or any less hierarchy in packs than in masses, but they are of a different kind. Individual agency and collective action are intertwined as each member “takes care of himself at the same time as participating in the band” (p.33).

**Individual accountability & collective responsibility**

In the design of X’s class individual accountability and collective responsibility are contemporaneous in all activities. Each project consists of teams, or crews, of three students assigned the roles of director, producer, or grip. The assignment of teams and the organization of groups is a source of tension in the class for two reasons. First, X wrestles with the tension between “wanting really good production, really good content...me make the groups and put all the skilled kids together or how I’m doing it by mixing up the groups and giving them all opportunities to be the director, producer, editor.” Second, as often is the case in groups, some students contribute more than others and students often prefer one role to another. The result is that students often gravitate to a particular role (i.e., editor, cameraperson, director) even if it’s not their assigned role. However, because the students are working toward the collective goal of a winning production (i.e., one selected to be broadcast on the
tv show), students also collaborate and use each others’ skills and knowledge.

While collaboration is embedded in these multimodal activities (i.e., students could not film and produce these videos alone), the tenor of the collaboration shifts according to the participants’ goals and purposes. The individual levels of participation shift daily and the dynamic between participants is not uniform. What’s in the best interest of (or sometimes what makes life less frustrating for) the individual student can trump a uniform collaborative spirit.\(^{20}\)

**Fight the power (but where’s the power?)**

Like a crew, Deleuze and Guattari’s (1987) conception of packs may be more flexible in design than mass (crowd) multiplicities, but packs should not be considered ahistorically. In a school, the pack operates in the larger context of the school system and the historical context of schooling. While X and his students enjoy their liminal position\(^{21}\), they are influenced by institutional norms.

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\(^{20}\) Having said that, the two students who expressed this sentiment are Kim and Nina, two of the three girls in the class. In my observations and interviews with the boys, they didn’t express feelings of victimization or annoyance at having to do the majority of work in the same way.

\(^{21}\) X says that he can relate to the kids because he didn’t like school or the system himself. He had a hard time in school because he was oppositional and contrary. He sees himself as apart from the system and says, “I don’t really like most
As a historical and political institution, marginalization of students in school based on race, class, and gender are issues to consider.

Researchers (Warschauer & Ware, 2008) note that some research on new literacies has focused on the democratizing potential of the digital tools (e.g., internet) for access to knowledge and information without sufficient consideration of the practices or how participants interact with the new technologies. Warschauer and Ware (2008) cite a project in India established by a technology corporation called the “Hole-in-the-Wall” to provide computer access to the city’s street children.

An outdoor five-station computer kiosk was set up in one of the poorest slums in New Delhi. Though the computers themselves were inside a booth, the monitors protruded through holes in the walls, as did specially designed joysticks and buttons that substituted for the computer mouse. Keyboards were not provided. The computers were connected to the Internet through dial-up access....The Internet was of little use since it seldom functioned...There was no organized involvement of any teachers. They’re complacent. I hate the union. They tell kids to ‘work harder’ but what does that mean? For me it’s about rigor.”
community organizations in helping run the project and the very architectures of the kiosk-based on a wall rather than a room – made supervision, instruction, and collaboration difficult. (p. 226)

Although the issue of access to computers is not central to this study, I include the above example to support my stance that any research that examines literacy practices has to include an analysis of power. Instead of broadening access to information through the use of computers, the designers of the “Hole-in-the Wall” project held power by controlling access to tools and information. The issues at Adams are not the same. Students have access to the tools (the computers), but there are issues around controlling access to information and censoring student driven/produced multimodal texts.

*Deep structures*

Spatial theories provide a way to consider power dynamics by offering a lens to examine how the setting has been (and is being) constructed, thus mitigating an ahistorical analysis of events and practices. Deleuze and Guattari’s discussion of “deep structures” calls attention to these factors. Kamberelis (2004) notes,
For Deleuze and Guattari, the rhizome is an oppositional alternative to what they call arborescent or arboreal ways of thinking, acting, and being...arborescent forms and structures may be imagined metaphorically as trees-linear, hierarchical, sedentary, striated, vertical, stiff, and with deep and permanent roots. They are structures with branches that continue to subdivide into smaller and lesser structures. In their various social and cultural instantiations, arborescent models of thinking, acting, and being amount to restrictive economies of dominance and oppression.

(p.194)

At Adams, the deep structures of race, class, and gender are always at work. They are ever present in exerting influence on the social practices at the school. What rhizomatic analysis offers, however, is a way to think about the interplay between deep structures, individuality, and community. Instead of essentializing and categorizing groups of people and social practices, spatial theories offer a way to consider people and practices as multiply-constructed and dynamic.
Rhizomatic cartography offers a way to more fluidly/flexibly map social practices. Deleuze and Guattari (1987) contend that arboreal structures are deep, reproductive structures that operate according to the principles of “tracing.” Conversely, the rhizome operates according to the logic of “maps.” They note, What distinguishes the map from the tracing is that it is entirely oriented to toward and experimentation in contact with the real...The map is open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification...Maps have multiple entryways, as opposed to the tracing, which always comes back to the same” (p.12)

In the following section, I will attempt to conceptually map how race, gender, class, and power are constructed in X’s class and in the school.

“We’re not really girls”: A gendered space

Gender issues permeate X’s class. His perception of his class as a crew (or a pack) is filtered, naturally, through his history and experience as a White, upper-middle class male. His private, K-12 single-sex education shapes a
particular conception of schooling that privileges certain practices while marginalizing others.\(^{22}\)

Nina comments on the “maleness” of the class saying that the girls in the class (Kim, Monica, and herself) “aren’t really girls.” Kim tells me that she has a hard time in this class because she doesn’t have a lot of confidence. She gets nervous and anxious and worries that X will get mad if she does something wrong. She say X and her are like (makes two fists come together to show clashing). She says that she gets nervous telling people what to do? “People have pride and they don’t like it.” (Click here for video of [Kim, Part 1](#) and [Kim, Part 2](#))

Nina says she gets annoyed when all the group work falls on her, but she tries to tell the group that they’ll be the ones that suffer. She just does it saying, “I’ll probably end up being the director and the producer.”

It’s important to note how Nina and Kim take up the machismo/toughness in the design differently. Neither one likes to have to do all the work or carry the

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\(^{22}\) I ask X about the small number of girls in the class. He says, “At the beginning there were 35 kids in the class. A lot dropped out when they saw that I would be on them. They wanted to hide in class. A lot of the Latina girls use their coats to hide. They never take their coats off and the put the collars around their faces. Nina can give it back to me, she’s tough. I think some of the other girls get intimidated.”
responsibility on their shoulders. Nina gets annoyed, but takes charge. She makes decisions and gets things done. She’s assertive. She goes to X after class with her idea for the PSA. Kim is passive. She shrinks back when challenged, but she’ll do the work on her own. This is a change, however, from when I first started observing in the class.

In the following section I’ll include a dialogue with X and two scenarios with Kim and Nina to illustrate how Kim and Nina interact with this macho/toughness design to construct their own spaces.

Kim: Nobody like me

When I first met her, Kim was talkative and assertive with her group. X said that she was one of the “most creative and out of the box thinkers in the class.” When I mention that I’ve noticed a change in Kim’ behavior, X says, “Her uncle overdosed. She’s been acting different. She’s grieving, but she’s saying, “I’m sick.” I say, “She wants someone to pay attention to her.” In a moment of down time, I ask Kim to tell me how she’s doing in her classes.

Kim: I’m doing okay. I want to go to college in Chicago.

Molly: Do you know people in Chicago?
Kim: No, but I heard it’s a nice town. A lot of my teachers are from Chicago. My mother is nervous about it because my mother doesn’t like to be alone. She has panic attacks. She’s always wants me around.

Molly: Is it you and your mom at home?

Kim: My father lives with us, but he spends a lot of time with his mother — my grandmother. She’s sick. She lives across the street. My parents haven’t really been able to get jobs because they’re taking care of my grandmother. She gives us a little money maybe $100. My mom uses it for food for the house maybe little things. We can’t get any big things like a tv. We get used things from our neighbors. If they get something new they give us their old thing.

Molly: Does she want you to get a job?

Kim: I don’t want to get a job. I want to concentrate on school. I see kids who have jobs and they never do their homework. They fall asleep in class. My mom wants me to concentrate on school, but she’d also like me to have a job so I could make some money.

Molly: Do you have any brother or sisters?

Kim: I have a brother. He’s 20 years old. He’s going to Afghanistan tomorrow. He’s in the Marines. He joined so he could have money to pay
for college. He’s risking being killed to get money for college. This is making my mother even worse. She’s yelling at me about everything if I say anything.

After Kim tells me this, I reflect on her emotional fragility and how she deals with the “be tough” ethic in X’s class by trying to hide. She wears loose, ill fitting clothes, slouches, speaks softly, and doesn’t look people in the eye. X says that she’s getting on people’s nerves because she mopes around. I say, “I feel bad. She has a lot to deal with.”

X: They all have a lot to deal with. A lot of their lives suck.

Molly: So, how do you handle it?

X: When I started here I was subbing in history and then I took over the job. The class had run out about four teachers. I basically had to break them. I had to prove that I wasn’t going anywhere. It was tough. I had pretty much grown up around white kids. I had never been around Black kids and now I was in front of a whole class of Black kids. I started by talking about genealogy- telling them my family is from Spain, but I realized that a lot of the African American kids in the class ancestry is about slavery. But then a lot of them would say that they had Native
American heritage too. They’d say, ‘I’m part Cherokee.’ They seemed to identify with the fighters. We talked about being fighters and survivors. We talked about that history and we talked about anger. A lot of these kids’ fathers aren’t around. I want them to be angry about that. I want them to recognize that they should be angry about that, but that they don’t have to be that way. They can fight. They can survive. They can have a plan and can break the cycle. I kind of get in their face and say are you going to be a fighter or are you going to be bagging my groceries. What are you going to do? I’m pretty harsh about it. Some kids come back the next day and say ‘That was pretty tough. I keep thinking about what you’re saying.’ I saw a change in some kids. Especially with the Black males, it’s all about respect, but I’ll say ‘respect for what? What have you done to earn respect? What has your father done to earn respect?’ When Kim was talking about how her parents “job” is to take care of her grandmother. That isn’t a job. That’s just a family responsibility. I hate to say it but we make things too easy. Even with school- in some other countries, kids have to pay to go to school. Here we give everything so there’s no appreciation. No need to work at it because it’ll be here. It’s, ‘I have no money- there’s welfare. I have no house,
there’s section 8.’ I see the Somali kids who’ve just come here. They’re getting A’s. In the winter, I see them walking to school in sandals in the snow. Other kids wake up and are like, ‘Oh it’s too cold. I’m not going to school. F**k that.’

In X’s design, Kim is weak and “we” (White people? X and me? the school system? the government?) are “making it too easy for them” (her family? poor people?). X doesn’t define what he means by his use of the work “we” or the word “them” but this conversation again illustrates how X considers himself tough and resourceful while particular others are not. He talks about how tough he was when he started subbing; he “had to break them.” This kind of language is akin to militaristic language or the discourse of fraternities (or maybe all-male boarding schools). The focus in his quote is on boys, fathers, and what it means to be a man. He is silent on girls or the issues of girls.

X may posit that his “be tough, no excuses” mantra creates a space that is equitable and affords his students opportunities to achieve based on hard work, but the language he uses illustrates a clear division between himself and some of his students (e.g., timid girls, African American men). His stance on issues of race, class, and gender is done so from his safe space of privilege as a white male.
He is secure and forthright in his assessment and judgment of what it means to be a man and what it takes to be successful in his class.

*Nina: I don’t care what they think*

In contrast to Kim’s attempts to hide in class, Nina puts herself front and center. In dress and affect, she projects a tough image (e.g., she wears handcuffs on her jeans, doesn’t accept every hug that’s attempted in the hallway), but in my interactions with her she’s open and friendly. I find her confident, mature, and engaging. She’s popular in X’s class. She accepts all challenges, volunteers to act in other people’s videos, and has no fear in front of the camera. I mention to X how strong and capable Nina seems. X says, “She was a different person last year she had a bad reputation. There were a lot of rumors about her sexual behavior. She’s not like this in all of her classes. She’s failing a lot of her other classes.”

Nina tells me “Girls don’t like me because I can hang with the boys.” In my one on one interview with Nina, I ask her what it’s like to be one of the few girls in X’s class, how she thinks she’s perceived in the school, what makes her successful in X’s class. (Click here for video of Nina)

*A pack?*
X’s class may operate as a pack in relation to the school and the district, but it’s reductive to leave it at that. The binary that’s constructed when conceptualizing groups as operating either as packs or as mass multiplicities, neglects a focus on the use of power. Groups may operate as one, then another, or as both. The leader may design and shape a group as a pack or a mass multiplicity based on his (and in this case, it’s his) desired outcomes. This is not to say that the participants in the pack or the mass multiplicity will comply with the available design. They may or may not; those interactions constitute their (active) designing and determine how spaces get constructed. There isn’t de facto membership in either group, the way the participant operates in the group is more deterministic of the space that’s constructed than the way the leader conceptualizes the design of the group.

For example, in Nina’s and Kim’ interactions with the design, the class becomes a more of a mass (crowd) multiplicity that’s characterized by “concentration, sociability of the aggregate as a whole, one-way hierarchy” (Canetti as cited in Deleuze and Guattari, 1987, p.33). The design is driven by a tough, macho, male ethos and ethic. For the girls, they have to construct spaces in relation to that.
Episodes as designs & spaces

Chapter 6

Although, by design, X wants ATV and his class to be a pack and to operate “outside” the institutional norms of school as a space of “difference,” he (and all the participants) is influenced by his and the school’s “surround” (Leander, 2008. p 35).

The “surround” of Adams includes strategies to tackle racial and ethnic tensions, poverty, issues of youth violence, truancy, and teen pregnancy. These strategies include assemblies to motivate, discipline policies to punish and deter, field trips to broaden horizons, academic fairs to demonstrate learning.

In the following sections I will describe several events or episodes (e.g., field trips, assemblies, holiday celebrations, academic fairs, detention) that are part of the institutional design at Adams High. I look across and within these episodes using the lens of the design of the school, the design of X’s class, and the participants’ interactions with the designs to construct spaces. The episodes serve as the medium through which I bring in and analyze themes generated from the data. To better understand the logic or grammar underpinning educational designs and the spaces that get constructed in schools through
interaction with these designs, I will consider the episode as a design and as a space.

Episode I

“Are you from Windsor, too”: School exchange as design

One morning as I arrive at Adams I see a school bus in front of the school. At first I think the bus is late because of the rain and then I see that all the kids getting off the bus are White and I realize that these aren’t Adams High students. I wonder what they’re doing here. Field trip? Competition? Game? As I walk in, someone at the door says to me, “Are you from Windsor, too?” Later I ask Chris and Nina why the Windsor kids are here.

Chris: They come here and we go there. I did it when I was a sophomore.

You go there once and they come here once. You get matched up with a

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23 This question makes sense. All the people who’ve walked in a few minutes before me are White, so I’m being grouped with the field trip from Windsor, but it bothers me because I realize that I’m viewed as an outsider who belongs somewhere else. Like X, I have the option, by virtue of my race, to be from Windsor (or any number of places like Windsor). In most cases I can leverage this optionality, but sometimes, like in this episode, someone reminds me that I am not the insider/person who is supposed to be there.
kid and you email and then when you go to there that kid takes you around and when they come here you take that kid around.

Molly: What’s it like? Do you keep in touch with the person?

Chris: It’s up to you if you keep in touch. Their school is nice. They have these huge flat screens in the hallway. The gym is huge. They get to leave for lunch.

Dante: I want to go there and see how they live.

Nina: Yeah and we’re stuck in here. If they (the administration) trusted us, they’d let us go to the store. We could see when we’d need to be back. That’d cut down on skipping.

Dante: People would skip. They wouldn’t come back.

Nina: No they skip now. If they skip at that school they got that ‘Mommy money’ (mocking sympathy) ‘Oh, I’ll talk to the school.’ I go home and my mom is like, ‘What you’re suspended. What’d you do?’ (Whacking motion.)

Molly (to Nina): Did you do the exchange?

Nina: I didn’t go. I knew I’d get mad. I’d see all the stuff they have, the vending machines in the hallway. I’d want to break them.
School based “pen pals” are a time honored educational practice. In its design, students from one school communicate through letters (or now email or videoconferencing) with students in another school. Often students in the U.S. write to students from other countries (or another region of this country) to learn about their climate, geography, culture practices, etc. Part of the design is to bring people together who live geographically far apart or who live in parts of the world that the students may be studying in their classes.

So, what’s the purpose of pen pal and school exchange between Windsor High and Adams High? Windsor is less than 10 miles from Adams, hardly a geographic distance. Windsor is one of the wealthiest towns in the state. The median income is $150,000. The high school’s student population is more that 85% White. How do the teachers in charge justify and frame the visits between Windsor and Adams? What are the purposes and goals? Perhaps in the design is a hope that the students will learn from each other thus de-othering “the other,” but in a design that seeks to use new tools (i.e., email, videoconferencing) to create spaces that allow for communication between groups that otherwise would have little opportunity to communicate, the designers destroy this proximity in the embodied visit to each others’ schools. The design of the email exchange affords a shared space; however, the space constructed in the visit is a
one day snapshot that freezes comparisons of material differences and exacerbates stereotypes. Although the physical distance remains the same, the conceptual distance is expanded.

Episode II

“Stay off the street”: Assembly as design

During one observation, X asks Chris to film an assembly in the gym. I follow Chris and watch the assembly given by two “motivational speakers” who founded a community basketball organization called “Street Ball.” The speakers talk about their “tough neighborhoods... the pull of gangs” and how playing basketball gave them something productive to do. They founded “Street Ball” to provide a safe place for kids to play. A goal of the assembly is to motivate students to see these two men as an example of how to avoid the dangers and temptations of the street and rather to find a productive way to channel their energies. To motivate and inspire may be the design of the assembly, but how do the participants take up the assembly? Who does the school perceive as the audience (generic urban youth)? In planning the assembly how does the school decide what is motivational and for whom? These are questions that can be considered through the filter of design. The participants’ interaction with the
design of this assembly creates the space of the assembly, but the design can’t
predict the space. They can’t predict what’s taken up by participants (e.g.,
motivation, inspiration, reproduction of racial & gender stereotypes).

Episode III

“Respect, respect, respect”: Awards as design

On this day, I go to Adams to interview Daniel. We had set up this day
and time the previous week, but when I get there he’s not where we’re supposed
to meet. I ask his advisory teacher where he is and the teacher says that there’s
an awards assembly for the 4th floor so that’s probably where he is. I decide to go
to the assembly. I walk into the auditorium. Jack, an assistant head, is running
the assembly. It’s noisy. Jack calls out “Respect, respect, respect” to quiet the
students.

The fourth floor holds an awards assembly each quarter. They award
ribbons, trophies, certificates based on the following categories:

Attendance

Notable- A’s, B’s, C’s

Honorable mention- All A’s, B’s and only one C

Honor roll- all A’s & B’s
High honors - all A’s (3 students)\textsuperscript{24}

Outstanding academic excellence - Teacher determined

Most improved - Teacher determined

Student of the month - Teacher determined

As students are named and called up, the students in the audience clap and shout out congratulations to the award winners. When the award ceremony is finished, Jack, the assistant head, calls the teachers down for recognition. The students clap and call out their teachers’ names. The enthusiasm seems genuine.

On another day, X tells me about a different awards show that’s going on. He’s been asked to send a student to film it. He says,

It’s kind of a joke. The honor roll kids are always getting honors, so they’re having this for other kids. I gave an award for tv production. There’s a kid in one of my classes – he’s failing and he’s got a terrible attitude. I gave him an award. He’s going to hear his name and be like

\textsuperscript{24} The three students who are awarded high honors are Somali girls dressed in long skirts and head scarves. The number of Somalis winning awards in all categories over-represents their numbers in the school.
“What?!” He’ll have to go on stage to accept. I did it to make myself laugh.

This use of the phony award may be a tactic by X. He took awards, an established institutional norm (a strategy), to reward and praise kids, and turned it on its head. Is this a message to the kid (to make him look bad in public) and a message to the school (mocking to the institutional norm and “show” of awards)? X thinks of these kinds of awards as kind of a joke, but what do kids think about them? The design is clear: to recognize student achievement. Most of the awards are for academic achievement, but there are awards for other kinds of achievement. X doesn’t buy into the school sanctioned awards, but he does care about awards. He and the students go all out to win the “Best High School Newscast” competition sponsored by Fox TV news. It’s not that he doesn’t want praise and recognition for his and his students’ work, but what matters is who is doing the evaluating. His design may justify the use of the joke award for his student or making a mockery of the school awards’ show because it’s just the school’s award and he doesn’t hold other teachers or administrators in high regard, but the students’ interaction with the design of the awards may be different, they may care about what other teachers and administrators think.
Episode IV

“I’d rather write an essay”: Detention as design

After a day of observing Chris, Lucas, and Daniel film a scene with the Dean of Students, Mr. Cook, the students begin to gather their equipment to go back to class. Daniel sees that Mr. Cook has left some papers on the ground. Chris picks them up.

Chris (to Lucas and Daniel): Should I take these to the office. I don’t know if I should be walking around with them.

Chris (joking): I could be like (to kid in hallway) ‘Hey, you have 5 detentions.’ I have 40 detentions. I’d rather write an essay. Write an essay and that’d be good for like 5 detentions. That’d be like 8 essays.

Daniel: Who’d read your essay? Who’d want to read that?

Chris: (mimicking how he’d write the essay) “I had to get up so early. I got on the bus and the bus driver started giving me an attitude. There’d be a paragraph about that.

Daniel: (laughing): I wouldn’t read that essay.
Detention is a well-established practice in the school’s discipline policy. Detention is designed as a form of punishment for and as a deterrent against breaking school rules. The administration takes it seriously as evidenced by time spent on paperwork and in meetings. In their interaction with the design of detention, however, the students create a space where the punishment is rendered moot. They mock the practice, the policy, and at the same time mock other school-sanctioned discipline strategies (e.g., writing an essay to atone for bad behavior). They joke about bartering essays for detentions. Chris says he’d rather write an essay and proceeds to mimic formulaic essay writing saying, “I had to get up so early. I got on the bus and the bus driver started giving me an attitude. There’d be a paragraph about that.” If Chris has 40 detentions, this strategy seems ineffective as an institutional design for punishment and deterrence.  

Episode V

“Get the credit”: Science fair as design

During one of my first observations I had the chance to follow Nina, Lucas, and Sean when X asked them to go the cafeteria and film the science fair.

25 By the end of the year Chris has 68 detentions.
I will use data collected from my observations at the science fair for two purposes. First, to illustrate how the students maneuver across spaces and second to illustrate how the science fair as a design is taken up by the participants.

On the day of the science fair, X sends Nina, Lucas, and Sean to the cafeteria to film. I ask X if he wants to include film of the science fair on ATV. He says, “Not really, but I have to balance the school stuff like the science fair, which I don’t really want to do, because I think it’ll be boring, with the stuff we want to do on ATV.” Nina comes back upstairs and says that the teacher wouldn’t let them come in to film. X goes down to the cafeteria with them and explains to the Director of Science why they’re filming. She says okay; she didn’t realize what they meant.

I follow Nina and Lucas, and Sean into the cafeteria. Students are lined up at tables in front of their poster boards. Nina asks kids if they want to be on ATV. A lot say no, but she cajoles and charms many into to saying yes. A special education teacher approaches Nina and asks her if she wants to film Marlon, a blind student, about his project. Nina’s demeanor changes, she gets more serious and asks Marlon clear and focused questions. Next Nina interviews a girl who, after the interview, wants to see how she looked like on
film. Nina says, “No, we have to keep filming.” They approach another student who’s done a project about meteors. The student is well-versed in the content and speaks easily in front of the camera. Nina asks probing questions about the content and continues to engage the student even when Sean stops filming. In another corner of the cafeteria, a group of girls are singing a song about the science fair. This appears to be an impromptu event; no one is watching them. Nina, Sean, and Lucas move fluidly through the filming of the event. They negotiate their roles in the project (interviewer, cameraperson, grip), assess the technical skills needed for the shoot (lighting, sound), and adjust their questions in style and substance when engaging with different participants.

This brief episode is an illustration of how texts, tools, and participants interact with designs. In its design the science fair is governed by a particular logic or grammar (i.e., it follows a particular temporal and spatial design). At the science fair, all the projects are displayed in a similar, uniform way (tri-fold poster boards). Teachers and guest judges (administrators from other schools, community members) walk from student to student asking questions and assessing projects on charts with clipboards. When being judged, the students explain their projects and answer questions. When the judges leave they reengage in the conversation they were having with their neighbors. When
another judge appears, the process starts again. I hear the principal giving an
interview about the science fair, he says,

I’m very excited. There is quite an improvement over what we’ve done in
the past. It’s been great to see so many students focused on doing science
projects, focused on the academics, making sure they complete the project
so they can get the credit and they can challenge themselves and their
minds.

In its design, the science fair seeks to showcase student work and
academic learning, but how do students interact with the design? Who is the
science fair for and what kinds of learning occur? The students do showcase
material work on their poster boards, but in this forum the students are relatively
passive unless a teacher or guest comes up to judge. The uniformity and the
flatness of the design are at odds with the dynamic nature of conducting a
science experiment. The dynamism of the learning is lost in its representation
and presentation. The administrations’ design breeds a sort of a dog and pony
show. The students’ active designing/use of the space is different from the
administrators’ or the institutional design. What the science fair is supposed to
accomplish may or may not be what is accomplished, but that doesn’t necessarily
mean that the space that’s constructed is wasted or negative. It may accomplish something else. My point is not to offer a remedy or solution; instead, I’m suggesting that attention to design allows for a focus on the processes of learning activities and attends to the potential of texts, tools, and technologies that may afford more dynamic representations and presentations of learning.

These episodes are included as illustrations of available designs at Adams. The institutional norms and cultural practices around school exchanges, assemblies, detention, academic fairs, and awards operate according to a particular spatial and temporal logic that may be incongruous with cultural practices, new technologies, and literacy practices in the 21st century. I offer these episodes like plays or skits, not as a set or backdrop. The episodes illustrate that the surround interacts with and influences what the actors (participants) do and can do in the educational context. Better understandings of the designs of institutional norms and how participants take up these designs helps me consider the larger questions of my study that are about curriculum and instruction and exploring the current challenges facing educational institutions to design learning environments congruent for learning with and through multimodal textual practices.
Previously, I’ve discussed how the design of X’s class challenges temporal and spatial institutional norms of school in the relationship between teachers and students and in the constructs of community and collegiality. In the following section, I’ll discuss how the activities in X’s class challenge institutional norms around production of and engagement with texts. At the same time, I keep present the influence of the school system and the historical and political influence of race, class, and gender.

What counts as literacy?

X’s class was selected for my study because of his use of digital technologies and multimodal literacy practices (these are often referred to “new literacies”) but when I first begin to talk to X about the “literacy practices” in his class, he said, “I never thought about what we’re doing as literacy.” What counts as “literacy” and what counts as “academic” is bound up in name and in practice. Curriculum, pedagogy, and assessments designed around distinct and stratified content areas privilege some forms of knowledge over others. X
teaches media literacy, but he’s not part of the English department. His certification is in vocational technology. I ask X if a lot of teachers want to work with him on projects or want him to teach them how to use these digital tools. X says, “Some will say that they want to do something, so I’ll start to set something up, but then when it’s their turn to do their part, a lot are like ‘Oh, let’s just forget it.”

Throughout my observations, I rarely see X interacting with other teachers. He’s friends with the Assistant Head, Jack, and goes to him when he needs something from the administration, but he spends all his time with students. He thinks of his classroom as his space. He takes ownership of the room. On a day that he and the class have to be out of their room because of state testing, X says, “I hate being down here. I feel out of control.” On this day, he’s in some trouble with the principal because he didn’t have his room ready for the state testing. X says, “Williams said to me ‘You should be a team player.’ I am a team player. I do everything for this school-for the kids.”

During one observation, as some students are shooting and editing film, X and two students (Jeremy and Drew) embark on a construction project to redesign the classroom. They start moving furniture and sweeping the room. They remove ceiling tiles to mount a new projector. X has brought in tools,
including a power drill, from home. I ask him why he doesn’t ask a maintenance person from the district to do it. He says, “They don’t do that.” Drew asks X about the measurement for the ceiling tile. X says, “There’s the heavy duty jigsaw, remember ‘measure twice, cut once.’ You tell me what comes next.”

X plans to paint the room. He says,

“Kids are going to paint murals on the wall. They’re going to paint iconic film images like The Godfather, The Shining, Jaws. They’re going to write text underneath that describes the type of shot (long shot, close up) that’s depicted. They’ll use Google Images to get the image and then use Photoshop to make a grid of the images to project on the wall to paint. One kid’s starting the Jaws one today.”


X says, “Little by little. This place will be just how I want it by the time I retire. So do I have the best room in the school? Who’s 2nd place? Ms. P. has bean bags. Bean bags are big points.”

Later X says that the principal, Mr. Williams, is “walking around the school with a dignitary.” When the principal comes in, Williams tells the “dignitary” about what the class does and the awards that X has won. He sees
the mural of the Jaws painting and says “What’s that?” X tells them what they’re doing with the mural and he says, “Oh, okay.” As this transpires I’m standing next to a student who whispers to Drew, “Williams hates him (X).”

X sees himself and his class as living in this space. They own this space; they’re not renting or just passing through. This is in contrast to the way he’s described the school as a “hotel” where “you go from room to room and then you check out.” This sense of ownership (and defiance of school protocol) extends beyond the material design of X’s class into conceptual designs of curriculum. Towards the end of year, a media director from central administration calls X about coming in for a meeting to talk about what the district is doing around media literacy and digital tools. X says, “Fine” and hangs up. Then he says to me,

That guy’s a jerk. He says stuff like, ‘You don’t care about your kids.’ You don’t use the programs and the products that I send. You don’t go to conferences. That’s bull. I do everything around here, things that aren’t supposed to be my job. Williams asks me to do all these things, do yearbook, make a website, do the calendar.

This creates an interesting tension. X is happy to have to freedom from following a curriculum guide and from being a tested subject on the State’s high stakes tests (He says, “I don’t have to follow a pacing guide like English and
Math”), but if the test is a measure of what the school, district, and state consider counts as literacy, what X does doesn’t really count as literacy to these stakeholders. The hegemony of distinct and stratified content areas is not fixed, however, as Livingstone (1983) asserts,

Hegemony, then is not universal and “given” to the continuing role of a particular class. It has to be won, worked for, reproduced, sustained. Hegemony is, as Gramsci said, a “moving equilibrium”, containing “relations of forces favourable or unfavourable to this or that tendency.

(p.94)

The relations of forces at Adams aren’t favourable to X’s “tendency,” and content area boundaries make certain topics favorable or unfavorable for discussion in some settings but not in others.

I offer a brief review of new literacies studies to situate my analysis of the literacy practices and the topics they address in X’s class.

**New literacies: Literacy pedagogy**

In 1996, The New London Group, asked, “How do we ensure that differences of culture, language, and gender are not barriers to educational success? And what are the implications of these differences for literacy
pedagogy?” (p.61). Their paper provided a theoretical overview of the connections between the changing social environment facing students and teachers and offered a new approach to literacy pedagogy called multiliteracies.

*Designing social futures:*

A central tenet in New London Group’s (1996) theoretical framework is the exploration and explication of the construct of design. In the paper they articulate design around three constructs: available design, designing, and the redesigned. “The concept of design emphasizes the relationships between received modes of meaning (available designs), the transformation of these modes of meaning in their hybrid and intertextual use (designing) and the subsequent to-be-received status-(the redesigned)” (p.81). Design can identify either the organizational structure of products or the process of designing. The design can mean: the way something is/has been designed and/or the process of designing. To be clear, design is a pliable construct that is stretched over material and conceptual social practices.

New London Group’s notion of design connects to the idea that learning and productivity are the results of the designs of complex systems of people, environments, technology, beliefs, and texts. This understanding of design guides my study and is sufficiently robust to examine how settings are designed.
(the purposeful, institutional design) and how spaces are continually in the active process of being designed (re-designing) through the use of participants. In the following sections I’ll describe projects in X’s class that illuminate the spaces constructed through the interplay of the designs of the school and X’s class and the participants’ interaction with these designs.

ATV: A contested space

As previously discussed, ATV is a news and entertainment show produced by the students in X’s class. Although award-winning, the form and content of ATV is contested. ATV is not considered a serious or academic space by some teachers and administrators. The students’ use of humor and satire to confront challenging issues (e.g., inappropriate behavior and touching in the hallways, racial tensions) is often misunderstood and misconstrued. X says,

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26 ATV won the Fox News “Best high school news” contest in 2008. X also has awards on his wall for “innovation in teaching with media literacy” (Dola award, Oct 2007, media literacy conference) and for “Creating an interactive website with students and then motorcycling through Spain, France, Italy, Croatia, Serbia, Bulgaria, Turkey, Greece while continually utilizing the website for trip updates including journaling, GPS tracking, video etc. so that students could follow the trip.” (Fund for Teachers Award, –Fund for teachers Fellow, 2007) When I notice and ask him about these awards, he says that there are more and that Williams (the principal) wanted them for the office but he never put them up.
The shows on ATV are often double entendre, countercultural and counter administration. Some of the teachers think the kids are just fooling around- like it’s a silly little tv show. When they really watch- if they get it- some are offended. A lot of the teachers would like to see ATV only used to promote the school.

During one class, I observe X and the students having the following discussion about their next video projects for the class.

X: You’re going to be making Public Service Announcements (PSAs). A PSA-is an ideas or concept that makes the world a better place. What are some ideas for PSAs that we can for Adams? X writes the ideas on a white board.

Chris: World power- Know your politics. Ask students questions. Who’s the vp, etc

Nina: Segregation…in the lunchroom

X: writes “cafeteria cliques” and says, You could have the sports kids, dancers, etc…Whenever we do racial stuff- things bubble up.27

27 I asked X about why he changed the segregation (in the lunchroom) concept to “Cafeteria Cliques”? I asked if he thought the concept was too loaded. X says,
Kim: We could do League of Nations. Try to get people mixed up.

Nina: I don’t know if you could find one group that’s mixed. In the cafeteria, everyone sits in the same place. The other day I was sitting at a table with Erica and Danielle and these Somalis tried to sit way on the other side. You know how long those tables are. Erica and Danielle were like, “Oh no, you can’t sit here.” I tried to say (to Erica & Danielle) it’s okay.” You know the line in the tables the Somalis didn’t want to pass that line. They were all trying to crowd in.

Sean: Frontin’…fake people

X: What do you mean? You are what you do. If you smoke pot, if you skip school, that’s what you do. You might get labeled that, but that’s what you’re doing.

Lucas: Hallway etiquette…Kids who yell too loud in hallway….Spit in hallway... Hug too much

Darius: Sidekick fiend / My Space fiend…Addicted to Sidekick/MySpace… Joking about texting, “Where you at?” Class, it’s

“It’s not too loaded. It’s too straight. A lot of the things we do are serious topics and are real issues. The hallway etiquette skit is real stuff, but we do it in a funny way. There is a way to get the issues out, but in a different way.”
boring” or “What you doing? Chillin” It’s so stupid people don’t say anything. People spend an extra $20 a month to say “I’m chillin”

Ricky: No Homo…They have a video like that on youtube

Darius: A racial draft…so kids will interact with each others…kids will be forced to be together.

X- I wouldn’t like to be forced.

Kim: Remember Dave Chapelle- At the barber shop. They played the music and all the different groups started dancing. Spanish music- Latinos dancing...White music, Whites dancing

Sean: Repn’ (representing) the projects

Nina: Who’s from the hood? Say you’re from the hood, but you really live in a house in a White neighborhood, you’re the only Black family.

When I worked at the Payless in Harwood these White kids would come in and try to steal shoes. I was like ‘Oh, you’re so hood’ Stealing shoes at Payless.’

28 The kids and X laugh and joke around about this. I wonder why is this okay to put on the board, but not the racial concept?
I include this dialogue because it offers a way to think about how spaces are constructed in interaction with designs. Using the language from New London Group, the participants are “in relationship with” with available designs or received modes of meaning around what it means to have a “good” school and what would make the school or community a better place. The topics they identify are filtered through their perceptions of the problems in the school. Within the parameters of the activity designed by X, students have freedom to select the topics, but the students’ freedom to position the topics is in relationship with the institutional norms of the school and of X’s class. In other words, the students’ process of designing is influenced/impacted by the available design of the school and of X’s class.

Using the medium of film, the students have added semiotic modes (visual, gestural, audial) through which to convey meaning. For example, in their video for the PSA Hallway Etiquette, Nina shows how she evades a boy in the hall who tries to hug her. Using multimodal texts, the students can “play” (Darley, 2000) with the concept of hallway etiquette in more dynamic ways (i.e., in ways other than, for example, posting a flyer that says “no hugging”).

X’s class: Designs of learning
The design of X’s class offers opportunities for and nurtures diverse textual engagement and production. The activities are characterized by a grammar\textsuperscript{29} of difference and emergence. X’s class operates around design challenges. It’s akin to Project Runway, a reality tv show where fashion designers are given a task (e.g., make a cocktail dress), a fixed amount of money to buy fabric and material, and a fixed amount of time to complete the project. Within those parameters or enabling constraints (Stevens & Dugan, 2009), designers are free to use different material tools (e.g., fabrics, fasteners) to execute their designs, but co-present is the use of different conceptual tools (e.g., understanding of how fabrics, textures work together, what suits the occasion, who the audience is). From the few rules and parameters of the activity, the participants consider the affordances of the tools (sewing machines, scissors), the affordances of the materials (fabrics), and the affordances of themselves (their skills and knowledge) to execute the design challenge. Similarly, the assignments in X’s class operate as design challenges.

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\textsuperscript{29} I use the term grammar to connote the underlying logic that underpins both various textual practices and learning processes. As used in fields such as systemic functional linguistics, grammar is a term that connotes an attention to both logic and options. (Stevens & Dugan, 2009)
X’s class as media lab

In the class/media lab, the interactions among the participants (between X and the students and from student to student) are highly utilitarian. At the beginning of the year, X sets up a “boot camp” to teach the technical skills of filmmaking. He takes several days on cameras and lenses. The class sits in a circle and he shows them how to use the equipment. He sets up time trials that incorporate the different skills he’s taught. The students have to work in teams on the time trials. At that point they start to negotiate leadership.

In addition to learning how to use the camera, lights, and audio to shoot film, students learn how to use computer software (e.g., iMovie, Limewire) to edit and to add text and sound to complete the digital productions. Asked about the learning process in the class, X explains:

They just figure it out. I also show them www.atomiclearning.com (X goes to site on his laptop). It’s a site that shows little movies to explain how different software works. It was designed for ‘Oh, shoot how do you do that thing again? You can get a tutorial on how to do anything with iMovie.

One of the first things I do is demystify the computer. I show them the guts of the computer, the hard drive, the screen. This is a liminal stage. I
show them the basics of the computer...that it’s a system that all works together. I teach them editing. Show how to cut and paste, set up the desktop, how to save. I get them ramped up on Macs. Kids will say, “I don’t know Macs. I don’t know computers. We spend about two months of getting to understand the computer. I teach them how to do research. How to do proper, more effective web searches. I teach them how to use keyword in Google. They take ownership. I give assignments/quizzes – a series of checks.

I want them to learn to find things on themselves. This year I decentralized the knowledge. If they want to know how to put their iPod in the computer I show them where they can find the instructions. I teach them the correct terms like ‘synching’ the iPod. If they don’t use the correct terms, I say, “What’s the word?” I showed them how to read the instructions online. Taught them how to look through to find want they want-to scan. I used to just do or ask them to do things, now I take the extra sixty seconds to explain to kids why I’m asking them to do something a certain way (e.g., searching images, the lighting, the camera angles) (Click here for video of Daniel)
X takes many pedagogical cues from his out-of-school experience as a project manager in a corporation. In designing the concept of the media lab, X seeks to mirror the skills and knowledge required to run a production company. Depending on the activity, students move around the class (and the school) to write scripts, scout locations, shoot film, digitize, and edit. Based on their production schedule, groups are working on different aspects of the project each day. A group is out filming, another student is at a computer editing film shot the previous day, another student is searching Google images for footage, other students are recruiting actors, other groups are downloading music and recording voiceovers. X describes the design saying,

They (the students) have a finish line/an endgame, but the process to that isn’t scripted. There are checks along the way. I try to keep the kids at about the same time line in preproduction, but they are all doing different things and I’m conferencing with them in groups and individually. I have them do the commercials first because they can suck, they’re not that important. The projects are designed to increase in technical complexity.

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30 X has had no teacher ed classes at all. He says, “That’s why I never know what they’re (administrators, professional development specialists) talking about.”
X’s design of the learning environment around design challenges is more congruent with the logic or grammar of multimodal textual practices, so in contrast to the flatness of the science fair, X’s design and the students’ interactions with the design are more dynamic. This is not to say that for a learning environment to be dynamic it has to be mediated through digital technologies; it’s about the interactions among the texts, tools, and participants. Many of the activities in X’s class are achieved through low tech pencil and paper. What the students accomplish through the handwriting and drawing of the storyboard could perhaps be achieved through a computer program, but the discussion and debate in the group about the vision and concept of their films is readily and successfully accomplished in paper and pencil. X says, “You don’t have to use technology to be a good teacher. Mr. Sullivan teaches history; he’s great. He uses projects, competitions, and debates. He doesn’t use a computer.”

The point in design is not about the ubiquity of technology or unitary assumptions about learning designs; it’s about the affordances of particular modes and the logic or grammar underlying learning activities and their execution. The focus is on the congruence among the literacy practices, the assignments, and the assessments with the learning.
**Added semiotic modes**

In the design of the PSA project, the texts and the tools afford new semiotic modes (i.e., animation, sound, video) and offer expanded opportunities to produce texts that convey meaning in ways unavailable in unitary, linear forms, but the texts and the tools do not operate in a vacuum. The setting in which these literacy practices take place co-constructs what’s possible. Earlier, I discussed a way to think about changing engagements with texts (e.g., possibilities offered through hypertextuality and multiple semiotic modes) by considering how people may engage with multimediated literacy practices in ways more akin to play (Darley, 2000). For example, during the Obama presidential campaign, musician will.i.am set Obama’s Jan. 8 New Hampshire speech to music. Using Obama’s exact words, the video transformed the speech through added semiotic modes. Once posted on YouTube, the video spread virally from user to user; it has received over 6 million hits. This video offers a way to think about how users “play” with texts (i.e., manipulate, transform, co-opt) using digital tools and new semiotic modes. Types of play, however, run along a continuum and hinge on the freedom and agency of the participant. Darley (2000) questions the amount of freedom the user has to play with the semiotic process when the relationship is reciprocal; the semiotic process also
plays with the recipient. Here, Darley is speaking about literacy practices of online and digital gamers, however, this idea can be extrapolated to think about the reciprocal relationship between participants’ (users) freedom and agency to “play” with the semiotic processes (and grammars) of school when these process (and grammars) are “playing” with them.

The students “transformation of these modes of meaning in their hybrid and intertextual use” (New London Group, p.81) is the designing. However, the “redesigned” spaces are constructed in dynamic interplay with available designs. Through the affordances of their design, the tools and the technologies may afford students opportunities to “play” with contentious issues in new ways, but the design of school and X’s class may not afford a playful space.

For example, in dialogue about the PSAs, Nina uses the word “segregation” and describes the racial and ethnic tensions in the cafeteria. X changes it to “cafeteria cliques” because “when we do racial stuff things bubble up.”31 X says that he does this because otherwise, “It’s too straight. We can get at these issues in another way.” In the way that the students continue to surface racial issues (e.g., a racial draft, repn’ the projects, League of Nations), the students seem to be clear in their desire to confront these issues directly in their

31 There is justification for X’s hesitation which I’ll discuss.
PSAs. By changing the content and the tone, X seems to co-opt the space created by the students to engage directly with racial tensions instead re-positioning the topic for humorous effect. Although, X’s (available) design offers more flexible opportunities for expression through multimodal texts (e.g., visual, audile, gestural), this does not guarantee that the students interaction with the design will be transformational in the ways that the students intend or desire. There is a difference in purpose and use of the design between X and the students. Much like my previous discussion about the “lads” (Willis, 1977) and “oppositional identity” (Ogbu, 1978), X design to “play” with issues of race and class in done so from his safe space of privilege as a white male and also from the optional defiance he enjoys as part of the demographic. This affords him different opportunities with the design than his students. The logic of the design for X is different from the logic of the design for his students. His students cannot occupy this same space therefore their interaction with X’s design creates a different space. Whether or not this is missed opportunity, there is a break or a rupture. According to the principles of the rhizome (Deleuze & Guattari, 1987), however, the rhizome may break but it will connect to something else along old or new lines. These ruptures should not be viewed as negative. The ruptures are in some ways necessary for creation, generativity, and agency.
Students at work

To illustrate participants’ interactions with designs in the school and X’s class, I will use my observations of a group of student at work out filming a video as context for my analysis.

During this observation, I follow a group who’s working on a video project that includes the Dean of Students, Mr. Cook. We’re in the hallway on the 1st floor. The students have a question about the camera angle so one of them goes up to the 3rd floor to get X. He comes down to answer the question. Two girls, who aren’t in the group, walk by. As X leaves to go back upstairs, he says to Mr. Cook, “See why those two girls are walking around the hallway like they own the place.” Mr. Cook says, “I’ll check it out”

_Actoring cocky: Dominican Independence Day_

Later, I ask X about his concern over kids in the hall. He says, “Today is Dominican Independence Day and a lot of the kids are acting cocky….walking around the hallways and stuff. There’s no school recognition of the holiday. But there should be.”

U.S. schools have a long history of recognizing events and people through celebrations (i.e., Martin Luther King Day, Columbus Day, Veterans’ Day, Black
History Month). In celebration and recognition, these events often include a vacation day from school. Leading up to these celebrations, schools include books, assemblies, and films in their curriculum to teach and recognize the significance of the events.

X’s comments about Dominican Independence Day and the behavior of some students speaks to broader issues in schools around curriculum and instruction in relation to demographics and student population. What and who should schools celebrate? How should schools decide how to allocate time in schedules and curriculum? What do these celebrations say about power and hegemony in schools? These questions can be considered using deCerteau’s (1984) constructs of tactics and strategies. As discussed, deCerteau asserts that the use of strategies is linked to institutions and structures of power where tactics are used by individuals to create spaces for themselves in structures of power. If the design of these celebrations is to recognize or valorize important, brave, or heroic events and people in U.S. history, is the school using these celebrations as a strategy to imbue certain values and traditions and more importantly to frame them in a certain way? For example, Adams High (and the district) celebrates Martin Luther King Day in the curriculum and with assemblies, dances, and concert performances. These celebrations are
institutionally normalized. They provide an authorized way to recognize the struggle for racial and ethnic equality.

X says that on Dominican Independence Day, the Dominican kids are “walking around like they own the place” and even though there’s a large percentage of Dominicans at Adams, there’s no official recognition of the day. With deCerteau’s construct of tactics, one could construe that these students are using tactics to make space for themselves and their ethnic pride. X says, “there should be” some school recognition of the day, but should there be? Through the filter of design, the questions become about the goals and purposes of these celebrations and what spaces are constructed through the participants’ interactions with these designs. If the design is to recognize the struggles of a marginalized group (thereby acknowledging them), but then in turn other groups feel marginalized, what does this say about the design? Additionally, doesn’t it position White as neutral or as the anointer of the marginalized? Should the design take into account the racial and ethnic make-up of the student body when considering the curriculum and celebratory events? Should it also consider how ethnicities and race as political constructs are approached in

32 I’ll discuss the trouble X and his students got into with school and district administration when they produced a controversial MLK video tribute.
schools and often simplified into foods, fashions, and festivals? In this example, the Dominicans are constructing a space through defiance, but how much power resides in this space? The question is not about an opinion on the stance the school should take on this particular issue, the question is about making decisions with attention to how participants are interacting with designs.

Texts & Tools: Narrative as power
Who gets to tell the story and how do they get to tell it?

During Black History Month the students in X’s class film multiple school-sanctioned celebrations. They digitize and edit multiple pieces of film to produce ATV episode 5. Once this episode of ATV is complete, it is uploaded to youtube. In addition to the film of assemblies, speeches, and dance performances, one of X’s students, Tyler, produced a video in tribute to Martin Luther King and the African American struggle for civil rights. X says, “We’re getting some heat from downtown (central administration). We uploaded the video to youtube and four hours later they were talking about it downtown.”

The heat that X is referring to is generated by the video’s title and content. It begins with a picture of Martin Luther King and the words, “Was he a man or was he a nigger.”

X says,
It’s like Ken Burns documentary. It’s about lynching and the N word. It’s about trying to abolish the N word. The images are set against scrolling print. The lyrics to “Strange Fruit” are playing. It’s a version sung by Nina Simone. It’s originally sung by Billie Holiday. Tyler, the student who produced it, is an African American senior. He built it on his own. The reaction of the students has been positive. They think it’s pretty powerful and well-done.

Later when I’m talking to Nina and Chris I ask them about the video and people’s reaction, Nina says, “It’s tough to watch but it’s good. I don’t get why they’re (central administration) making such a big deal. We watch stuff like that in 1st period (history). We always watch videos like that in school.”

The reaction to this video and the way that it’s taken up in different settings (e.g. downtown, in the classrooms, on youtube) illuminates how racial spaces are differentially constructed through participants’ interactions with available designs. The school has sanctioned designs for curriculum and instruction around civil rights and issues of prejudice and injustice. As Nina says, “We watch stuff like that in 1st period (history) all the time.” The space that’s constructed in 1st period is in relationship to an implicit design where the
school (or the teacher) sanctions the texts and frames the issues. Nina’s reaction to racial texts in her history class seems blasé and detached. The reaction of the central administrators (downtown) constructs a different space. X and the students “take heat” for co-opting the district-sanctioned MLK tributes. Through the text (the video), the tools (youtube), and the participant (Tyler), the district’s power to shape the image of the district’s celebration of Black History Month is hijacked by one high school student.

Authorship and ownership of the issue, or who gets to tells the story and how and where they get to tell it, is differently constructed in these spaces. Where, when, how they’re watching and who is watching creates different spaces (e.g., in 1st period history class, the central administration watching the video downtown, the students watching the video out of school on youtube, the students and the teachers watching the video at school during advisory).

Another way to think about this is how the interaction of texts, tools, participants, and setting create different and unanticipated spaces. The way these participants take up these issues, questions, and calls to action isn’t unilateral. Here, the goal of the district to address racism through school-sanctioned celebrations and to mute the potency of Tyler’s video may miss an opportunity to think about how students are engaged with issues of race, class, and equity.
The student’s design (in form and content) is out of sync with the school’s available designs of texts around race and racism. The space constructed by Tyler’s video holds power (it has captured everyone’s attention), but it is a liminal and marginal space in the available design of the school.

So let’s tap the power: What happens to innovation in educational setting?

Tyler’s production problematizes designs of curriculum and instruction in educational settings. From a reform standpoint, attention may be paid to the opportunities offered through the changed literacy practices among context, tools, and users with multimodal texts; however, it’s a mistake to think that schools can facilely co-opt these literacy practices and reposition or reallocate them in the existing school structure or available designs.

This is a caution because a current discourse in educational reform includes language about disruptive innovation (Christensen, 1997). The concept of disruptive innovation is derived from research on business and industry. Christensen (2004) describes the theory saying,

I call (something) a disruptive innovation not because it’s a breakthrough from a technological sense, but instead of sustaining the trajectory of improvement that has been established in a market, it disrupts it and
redefines it by bringing to the market something that is simpler.

(http://www.gartner.com/research/fellows/asset_93329_1176.jsp)

More recently, Christensen (2008) argues that disruptive innovation is needed in schools and calls for using technology to better serve students and to bring our schools into the 21st Century. I could argue that X’s teaching practices are a form of disruptive innovation. The way the students interact with designs of learning in X’s class (e.g., multimodal texts, less rigid expert/novice roles, more flexible use of space and time, user-driven access to knowledge) does disrupt institutional norms around curriculum and instruction. However, this simplistic analysis would miss the co-constructing influence of institutional designs. In other words, it would obfuscate the relationship between innovation and the social field of school. It would miss attention to questions about what happens to technologies and practices when they’re taken into a school context.

If the students and X are operating with texts and tools in a liminal position, would looping these practices into the school system make sense. The logic or grammar underlying the literacy and social practices in X’s class is different from the logic and grammar that underpins the broader school system
(i.e., they operate according to different spatial boundaries and temporal rhythms)

The point isn’t that that new literacy practices or technologies should be adapted to fit traditional designs of curriculum and instruction; instead, the thinking should be about the affordances of multimodal texts, tools, and social practices. Without a consideration of the affordances offered through added semiotic modes (audio, visual, gestural) and the kinds of social practices that participants use when engaging with them, the dynamism in these designs of learning will be flattened. If these literacy practices operate according to a different logic of space and time (Harvey, 1990) than the surrounding institutional structures, would trying to make them fit make sense? For example, designing learning environments around multimodal and digitally mediated literacy practices may be a “disruptive innovation,” but if the grammar or design of the surrounding system (e.g., hierarchical school structures, compartmentalization of knowledge, fixed time & class schedules) operates

33 This is, however, what the Massachusetts Department of Education has charged its recently formed Task Force on 21st Century Skills to do. One of their missions is to “Make recommendations on how 21st century skills can be integrated into or used as a supplement to the state’s existing educational program” (retrieved 5/1/08 from www.doe.mass.edu)
according to a different (analogue) design, can the disruptive innovation be managed by or assimilated into the structure? And more importantly, should it to be?

In X’s class the dynamic nature of the social practices are explicit in his design of learning. He plays with time and space as a pedagogical tool in text production (e.g., teaching how to sequence shots, how to represent shifting locations and events) and in classroom management (e.g., grouping and regrouping students as the demands of the project changes, keeping deadlines tight to encourage efficiency and accountability).  

(Click here for a video of a team of students working with X to conceptualize and storyboard their project)

2nd period: *Time, space & literacy practices*

The following are excerpts of observations from X’s 2nd period class. To differentiate the days, I’ll use the day of the week and the time that the

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34 X says, “There is always my invisible hand there. I use a lot of theatrics and make things seem pressing and important- even though it’s not life and death. I want to students to take the time schedule and their organization of time seriously. I don’t allow them to say, ‘It’s not my fault.’ Last year if they said that, I automatically dropped their group’s grade.” There is no blame or excuses. They have to work it out and get it done. It’s their responsibility”
observation took place. Signifying the time of the class and the day of the week is useful because it serves to highlight the dominance of time as an organizing structure for schools and fails to recognize the fluidity of learning across time and space. The excerpts are an attempt to capture and articulate the dynamic nature of the social practices that construct the space/time of X’s class.

Tuesday, 9:15 am

I go to the weight room with Lex’s group to film part of their commercial ‘Gamer Rehab.’ On the way I ask Chris and Nina about the track competition they had yesterday.

Chris: I won a silver.

Nina: I couldn’t go because I was taking an AP English exam.

Molly: Are you taking any other AP classes?

Nina: Just English, I could handle 4 AP, but Ms. Hasting (her advisor) said it wasn’t a good fit or something, whatever that means.\footnote{What does that mean? It probably means that the advisor thinks she can’t handle it, but Nina’s not sure why. The advisor’s language needs to be more clear.}
Once in the weight room, Lex, the director, gives the students their positions. They are dressed as doctors in white coats with stethoscopes and clip boards. The students are African American and Latino/a.

Nina: This is the ghetto version of ‘House’

Darius: Yeah, I’m the random black guy

Nina: Yeah, I’m the sexually active doctor.

In the video for Gamer Rehab, there is no focus on or mention of race. This conversation by the students is not part of the video; they’re saying this as they’re setting up the cameras. Overt attention to racial issues is not part of most videos that the students produce, but there are a lot of jokes and undercurrents. They use humor to show how the media positions them.

This design of learning affords the students power in a more flexible way. There’s a shift from text reception to text production. In writing and directing the commercials (text production) they can respond, rewrite or reposition using the same tools that the media and culture uses to position them. This is similar to the discussion about how students were positioned when reading about the civil

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36 Another group is producing a telenovella. X says, “You’re working off a stereotype of Latino people, but it’s not really about Latino people. It’s so over the top that it’s more like a cartoon.”
rights struggle or watching videos with images of lynching in their history classes (text reception) and how students re-positioned the discussion in the student produced MLK tribute video (text production). Multimodal textual practices afford students new ways to produce and engage with texts that change the ways they receive texts. These literacy practices can change power dynamics.

Wednesday, 9:10 am

Out in the hallway a group of students are filming. Chris, the director, is giving the Dean of Students, Mr. Cook, direction on how to act the scene. Lucas, the grip, is holding the boom microphone, and Daniel, the producer, is holding the clapper board (the wooden board filmmakers use to start film rolling)

Chris (to Mr. Cook): Stand here, give a conniving look.

Daniel (to Mr. Cook): When he says action wait for two seconds and then start.

They do 5 takes of the scene because Mr. Cook laughs, misses his mark and fumbles his lines, but they also want to make sure that they have more than one take to choose from.
Chris (to Lucas and Daniel): We need to do the p.o.v. (point of view) shot. I have to get down on the floor. (to Mr. Ford) Move more this way. I don’t want that light. 

_They film three takes of this new sequence._

Chris: I don’t think we have time for another shot. We can finish after school.

_They thank Mr. Ford._

Mr. Ford: Am I going to see this on ATV?

Chris: Hopefully.

This brief scene illustrates some of the features of X’s design of learning with and through multimodal texts. To accomplish the projects, students must collaborate on the design and execution. In the execution of the projects there are individual roles and responsibilities (e.g., director, grip, producer), but the group is collectively accountable for the outcome. X scaffolds the production timeline starting with whole class brainstorming of topics and debate about the potentials

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37 The students’ attention to time, and in particular to getting as much work as possible done in their class time, is something I observe in all groups that are out filming. I make note of this because of the stark contrast to other classes I’ve observed (in this district and elsewhere) where students are packing up their bags or getting up to stand at the door minutes before the bell rings. There’s an inverse use of time.
and pitfalls of each. Once topics have been chosen, students work in groups using a storyboard worksheet to construct the narrative and visual elements of the film. The students use a separate worksheet to block camera angles and to check lighting and sound at their locations. Once students have completed the pre-production steps, they pitch their ideas to the class using an overhead to project the storyboard. As the group describes the project, other students and X ask questions about form and content (e.g., will that camera angle work? does a particular line in the script make sense?).

(Click here for a video of a group pitching their ideas for Hallway Etiquette)
(Click here for a video of students filming Hallway Etiquette Part 1 and Part 2)
(Click here for a video of students editing Hallway Etiquette)

Observing these scenes calls attention to the kinds of literacy practices that students are engaging in. In the pre-production design of their multimodal texts (films, videos), students are required to attend to camera angles, sound, lighting, narrative structure, gesture, movement, dialogue, and props. The auditory and visual sensory cues, or digitally rendered corporeal cues (Steinkuhler, 2005), are organic to multimodal texts but are a dynamic shift from linear, print bound narrative structures. Students, both as authors and as audience, make meaning
differently in interaction with multimodal texts. In thinking about how about how to tell the story, the students’ attention to camera angle, light, and movement, sound, location is equally present as their attention to spoken dialogue or written text. Through their use of digital tools, the students enhance and extend their literacy practices. The narrative structure is expanded multimodally. Steinkuhler (2005) posits,

A likely result of this new capacity of written communication is that new forms of literacy will share much in common with the dynamics of meaning making in face-to-face communication. In the same way that interpreting language, gestures, body language, and facial expressions rely on such sensory cues as body-sense, sound, vision, and movement, it is likely that newly emerging literacies will become increasingly defined by digitally rendered corporeal cues. (p. 10)

In this example, the rest of the class’ (or the audiences’) engagement with the task is more dynamic as well. While listening to the pitch, the students and X
are giving real-time, on-demand feedback. In a way, this is the logic behind the well-established school literacy practice of peer editing, where one student reads and gives feedback on another’s writing, but through the added semiotic modes of multimodal texts and with the involvement of the whole class, the individualistic (and isolated) nature of (one) peer editing voice attending to linguistic mode alone is changed to the collective, but varied, voices of the whole class attending to multiple semiotic modes.

Once the groups have shot and digitized (uploaded their films to the computer for editing), they gather in class for, what X calls, ‘Rough Cut Friday.’ As the class watches Darius, Drew & Kim’s film ‘Patalito Surveillance’ they use an editing sheet to rate the groups’ work. As they’re watching, X comments on the form and content of the film, saying the group “needs to add titles and graphics. It’s missing rhythm. You need to pay attention to the rhythm of editing. It’s hard to teach. You need to work on this.”

X (to Darius): Almost every editor was here after school. At 5:00, almost

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38 X says, “The students are very honest about each others’ and their own projects. There’s usually a lot wrong with these first projects. They laugh because they see the microphone in their shot. It becomes very clear on the screen that the sound is bad or the lighting is bad. They get a good understanding of what happened.”
every editor was still here.

X (to Darius and Drew): Do you want an Incomplete or the F?

Darius and Drew: We want the Incomplete.

X: Then you’ll fix it?

Darius & Drew: Yep

This scene illustrates some of the features of activities that create opportunities for and nurture diverse textual engagement and production. To be sure, X makes particular choices in his pedagogical approach, but these choices are characterized more by a grammar of difference and emergence than by a predictive pattern of lesson planning (Stevens & Dugan, 2009). The needs of and expectations for each individual and each group are assessed and reassessed as the project progresses. Instruction and direction are given on a case by case basis. The objective is to have the students produce a film that’s good enough to be on ATV. X’s mantra is “Hope for the best, plan for the worst and make it awesome.” To move toward that goal, X works with students in small groups and individually to advise or assist them in accomplishing the tasks needed to complete the project, but just as often, the students assist each other in and across groups.

Is this cheating: Collaboration or copying?
Collaboration is design norm among the students in X’s class. Students ask each other questions about form and content throughout the process. This openness and sharing of skills and knowledge challenge institutional norms around cheating in schools. While neither the students nor X call the collaborative work they do in X’s class cheating, they claim to cheat in other classes.

I observe Ray copying notes from his history worksheet saying, “I don’t care what I write here. I’m supposed to highlight the important stuff first and then take notes, but I’ll just go back and highlight stuff later.”

On another occasion, Nina is trying to finish her Spanish homework. Sitting nearby are Drew, Chris, and Daniel.

Nina (to Chris): You speak Spanish. How would I write this?

Chris (to Nina): That’s Spain Spanish. I don’t know that.

Drew (to Daniel): Don’t you speak Spanish?

Daniel: I’m half Honduran. Honduras is far away from Spain.

Nina: This is due. I’ve got to find someone who knows this stuff.

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39 I’ve observed these two students communicate with their peers in Spanish every time I visit the school. This brief dialogue shows that they don’t perceive their language to be ‘Spain Spanish’, so their knowledge of the language doesn’t count as ‘Spanish’ in the school.
Although the actual practices in the later example are similar to the practices in X’s class (i.e., students seek more knowledgeable or skilled peers for help) the differences are in the designs of the assignments and in the students’ interactions with the designs. In the example with Nina and the Spanish speaking boys, the assignment is a take home test that she is supposed to complete alone. Nina doesn’t know the answers; she asks people that she thinks will know the answers for help. In the design of this assignment, Nina is cheating. In any non-school context, this would be a logical and smart way to figure something out (e.g., asking for directions or translations), but she and the boys know that they shouldn’t be doing it and that if they get caught they’ll be in trouble. When X sees what she’s doing he says, “Don’t do that in my class.”

As much as boundaries of X’s class are blurred (e.g., who should be there, when, where and how they work on projects), other boundaries are fairly distinct: “Don’t do that (Spanish homework) in my class.” It’s not clear whether X asserts this boundary as a function of the design of his class (in service of the space) or whether he’s simply operating with available designs of school where you don’t do work for one class in another class.

Tuesday, 9:05am
The students are working in different parts of the classroom. At the front of the room some students are setting up props in front of the green screen. X talks about how to light and goes over technical elements of filming. At the computers, Nina’s helping Kim look up images of riot scenes for their video “patalito surveillance”.

X: You need to get archived footage of riots. Check out Google videos- “anarchy, street fight, riots”- You’ll get a whole bunch of URLs – download them onto the desktop- high quality- don’t select youtube- youtube is blocked.

Nina to Kim: Try Lime Wire.

Molly: What’s Lime Wire?

Kim: It’s a program like youtube, but you can’t see the images before you download. It’s controversial because you can get viruses and you can’t see the video before you download. I don’t want to download and see porn.

In front of the green screen, Chris is acting in Lex’s commercial for ‘Gamer Rehab.’ He’s doing a spot called ‘guitar hero.’

X takes Nina and Kim into the “VIP room” to a computer that will allow different connections.
X: We’ve figured out a way to get a proxy – a connection through Mexico- 
because the Adams connection is like a box. It blocks a lot. 40

Molly: What kinds of sites are they blocking?

Nina: The biggest problem isn’t porn. It’s kids accessing their mail and 
going to MySpace. I could find a way though.

X: There are reasons, kids posted threats and stuff.

David walks in with his laptop and says to X: Why doesn’t the Adams 
wireless work?

X: They’re paranoid that people are going to take advantage of the 
system, so they set up all these firewalls. They have to add your computer 
to the system.

Nina and Kim start are looking for videos. With the proxy, they have 
access to pornography and x rated video clips. Nina scans the lists looking for 
riot clips, when she sees links that infer sexual content, she says jokingly, “I don’t 
think we want that one.” Nina doesn’t seem interested in seeing what she can

40 Later in the semester…
David says to X: They (the IT people) took away our proxy.
X: Can’t you get another proxy?
David: You need a proxy to get a proxy. You can’t Google ‘proxy’
get away with; she stays focused on looking for the riot clips. They have a hard
time opening some links and finding clips that they can use. With class almost
over, Nina and Kim leave the url for David to try to find.

This dialogue illustrates tensions around internet use and access at
Adams. Nina comments about accessing MySpace and X comments about
students posting threats. These tensions pose new challenges for the school in
relation to “where” the threat is made. In the case of MySpace, the threat is
posted and read out of school, but then the knowledge (of the threat) is brought
into school. Questions arise about the school’s responsibility to monitor
MySpace and other social networking sites. Is the virtual space of MySpace
unconstrained by in/out of school boundaries? Are there differences between a
threat posted on MySpace or a threat made or posted on school property (like
graffiti)? These questions and the larger question are about the relationship the
school wants to have with the world wide web (or maybe the world).

Debate about what’s appropriate or inappropriate material for students
has always been contentious (e.g., banning books). The reasons the school gives
for blocking access to sites (e.g., materials inappropriate for minors) are not new.
What’s new is the access; gatekeeping is changed. X and the students use the
internet as a tool to get what they need for their projects. Because the students
use the internet openly and organically to accomplish their work, they don’t use
the web or their access covertly to do things they know they shouldn’t do in
school (e.g., access pornography). This is not to say that schools don’t need
policies around internet use. X’s design of learning has set up parameters and
expectations of use (Stevens & Dugan, 2009). The social practices are not organic
to the culture of the school. X and his students have created a productive
learning space because they are aware of the interplay of texts and tools in the
cCONTEXT of school. They are always aware that they are in school.
Conclusions

Chapter 8

What’s the frequency⁴¹, Kenneth?
REM

My goal in this dissertation is to fuse theory and methods to analyze and represent the multiple streams or frequencies that are present in dynamic exchanges among designs, spaces, participants, and settings. A multiplicity of potential frequencies is ever-present, but communication only occurs when participants find a congruent line of communication. When operating at different frequencies, they miss each other. In this study, the school’s designs operated at a particular temporal and spatial frequency, X’s designs operated at a particular temporal and spatial frequency, and the participants each operated at their own frequency. In their interactions with these designs, at times

⁴¹ A description of frequency... A sound wave is introduced into a medium by a vibrating object. The vibrating object is the source of the disturbance which moves through the medium. The vibrating object which creates the disturbance could be the vocal chords of a person, the vibrating string and sound board of a guitar or violin, the vibrating tines of a tuning fork, or the vibrating diaphragm of a radio speaker. Regardless of what vibrating object is creating the sound wave, the particles of the medium through which the sound moves is vibrating in a back and forth motion at a given frequency.
(from http://www.physicsclassroom.com/class/sound/U11L2a.cfm)
participants found each others’ frequencies (i.e., their interactions with designs were congruent), in other cases participants didn’t, couldn’t, or didn’t want to find the frequency. This doesn’t mean that they weren’t till transmitting, but their interactions with the design connected somewhere else on a different frequency.

I use this metaphor because I want to note that this dissertation isn’t meant to offer a set of unilateral rules for educational designs. Instead, I hope that the dissertation offers a way for those thinking through theory and practice in schools to consider designs of learning environments and how designs are taken up by participants to create spaces. From more robust understandings of spaces, perhaps more thoughtful consideration of designs of settings can occur. For educational environments, this means thinking through designs that are flexible enough to afford opportunities for dynamic practices among diverse participants. Spatiality offers this kind of opportunity to think about dynamics of design. Where other theories (e.g., critical theory) ask about the definitions, spatiality looks to how people interact with those definitions.

In this dissertation I have mapped the material and conceptual designs of an urban high school and a class in the high school. I have considered what spatiality offers as a theoretical lens for studying educational contexts. I have
looked at the construct of design as a way to think about space, power, technology, and texts in educational settings. I have emphasized how participants interact with designs to create spaces in ways that can’t be predicted, but that their potential to act and their conceptions of what’s possible are shaped by their cultural references and institutional norms of school.

Mapping conceptual & theoretical designs

As it stands, the available designs of schools are materially and conceptually inflexible. Schools are organized around factory models and routinized practices. In their design, schools work to flatten differences in human behavior by constructing settings where the flow or bodies and the flow of information is regulated and shaped a priori through predictions about how people will behave and interact with the design. What’s especially troubling about predicting patterns of behavior is that the designer is operating from a particular cultural frame of reference. How s/he sees the world shapes the world s/he designs. The material and conceptual design is then imbued with the biases, prejudices, and assumptions about the people who will be occupying the setting/site. In educational settings, the designer makes certain assumptions about teachers, students, what counts as literacy, what counts as knowledge, and
what counts as learning. I’ve used spatial theories to confront the assumptions in these designs and to examine what participants do with these designs.

Spatiality as a theoretical lens for looking at educational contexts

Using spatial theories (deCerteau, 1984; Deleuze & Guattari, 1987; Lefebvre, 1991; Soja, 1989, 1996) I’ve considered the dynamics of power in educational settings to expand lines of research that state “work on new literacies in schools provides insight into how 21st century skills are transforming classroom instruction (Coiro, 2003; Labbo & Reinking, 1999; Leu & Kinzer, 2000; in Warschauer & Ware, 2008) and how teachers must rethink pedagogy in light of new literacies and new technologies (Karchmer, 2001; Smolin & Lawless, 2003; in Warschauer & Ware, 2008). This may be true, but the research focus is not sufficiently robust. Any research that examines literacies in school has to include an analysis of power because of historical and political contexts of schooling. It’s not enough to study student literacy practices out of school, or changing workplace practices, or the affordances of digital technologies without considering how those practices are or will be changed when brought into schools. In other words, the research has to consider what happens to social
practices when they’re institutionalized and how participants interact with institutional designs. My study looks at those relationships.

Before considering what spatiality offers, I note the connections to and distinctions from other frameworks for studying literacy practices. Sociocultural theories (Heath, 1983; Street, 1984) and multiliteracies (New London Group, 1996) see literacies as fluid and shifting. Reading, writing, and meaning-making are seen as always situated within specific social practices within specific D/discourses (Gee, 1990). Spatiality shares this assumption.

A distinction between sociocultural theories and multiliteracies is theorizing about design (The New London Group, 1996). In theorizing about design, the impact of multiple modes (e.g., print, screen, sound, image) and the affordances of different modes assert a complicating spatial logic in the conception of literacy (Kress, 2003).

Stein (2008) notes “Teaching and learning happen through the modes of speech, writing, sound, movement, gesture, image, space to create multilayered, communicational ensembles... designers of pedagogical environments understand that there’s a relationship between learning and the semiotic forms through which learning occurs. All learning is multimodal. (p.872)
Again, spatiality shares these beliefs. Where I believe spatiality offers something more is by illuminating the non-linear, dynamic, and unpredictable relationships that are occurring within the same place. These lines of flight, however, operate among and alongside historical relationships and deep structures (Deleuze & Guattari, 1987) of race, class, and gender. Spatiality offers a lens to examine how the setting has been (and is being) constructed, thus mitigating an ahistorical analysis of events and practices. At Adams, the deep structures of race, class, and gender are always at work. They are ever present in exerting influence on the social practices at the school. What spatiality and rhizomatic analysis offers, however, is a way to think about the interplay between deep structures, power, agency, and generativity.

Spatiality troubles unitary assumptions about the relationship between social practices, design, literacies, and learning. The New London Group (1996) clearly calls attention to the importance of design, but their questions are still about how to maximize students’ access to school achievement. They do not shift the frame to ask how to shift schooling practices. They fail to articulate how the multiplicity of identities, purposes, and modalities may interact within the same place. Sociocultural theory and multimodalities pay attention to context
(place), but spatiality pays attention to how spaces are created within those places.

Spatiality offers a lens to examine those interactions and the spaces they create. As Sheehy & Leander (2004), quoting Harvey, assert, “The purpose of spatial analysis is not to reduce space to a stability, but to show that it is always changing and to question ‘how, when, and into what’ (p. 2). In this study, I’ve used spatial theories to examine the designs of settings and contexts and to examine “how, when, and into what” participants construct spaces.

Using spatial theories

deCerteau’s construct of walking the city and tactics and strategies (1984), Deleuze and Guattari’s packs and mass multiplicities and deep structures (1987), Lefebvre’s perceived, conceived, and lived space (1991), Soja’s illusion of opaqueness and illusion of transparency (1989, 1996) have offered theoretical lenses to examine the educational contexts. Although all are spatial theories and speak to one another, each shines a distinct light. I found deCerteau, Lefebvre, and Soja helpful when thinking about the material and conceptual designs of the school and X’s class and ways that participants interacted with the designs to create spaces. Deleuze and Guattari’s packs and mass multiplicities helped me
think about the construct of community. deCerteau’s tactics and strategies offered a more complex way to think about how participants negotiated designs. Deleuze and Guattari’s construct of deep structures allowed me to keep present historical and political contexts of race, class, and gender in schools. A common thread through these theoretical lenses is attention to power. The ways that spaces were constructed in interaction with designs, the ways that X and the administrations tried to construct communities, and the ways that participants took up or abandoned these designs hinged on the participants’ purposes and goals and the affordances of the design. In other words, the participants used and negotiated power dynamically and distinctively to different ends.

The construct of design as a way to think about space, power, technology & texts in educational contexts

In mapping the conceptual and material designs in the school and X’s class, I followed the work, followed the learning, followed the design, and followed the participants to find what out what the participants did with the design. To find out what spaces were constructed.

To do this, I considered how the affordance of the physical and conceptual space (e.g., classroom, school), the affordance of the mode (e.g., written, visual),
the affordance of the medium (e.g., print, digital), and the affordance of the learner (i.e., abilities, interests) intersected with the school’s and X’s designs of learning.

The participants’ interactions with the designs were mediated by their cultural understandings of the purpose of school, their place in the school, and the potential of learning in school. In other words, the rules and grammars of available designs of school were co-constructive in the active designing by the participants.

The dissonance that X’s designs caused with the school’s available designs is one of the most productive outcomes. This dissonance is caused by viewing X’s designs of learning through more modernist understandings of time and space. By breaking temporal and spatial boundaries of what constitutes a class, an academic discipline, and a teacher/student relationship, X and the students used multimodal literacy practices in ways that offered fewer opportunities to assimilate understandings of what and how it means to learn and teach in school into available designs.

However, perhaps the most important outcome is recognizing the dissonance caused by the students’ interactions with the school’s and X’s designs. My analysis of the episodes illustrates that while explicit designs may
imagine more rigorous academic spaces for students (the science fair), more flexible, dynamic spaces for teachers (advisory), appreciation of civil rights struggles (Black History Month), there are differences among what students, teachers, and administrators perceive as the purpose of these designs. Therefore, the space of the science fair, advisory, and Black History Month may be productive, unproductive, or productive in ways not considered by the designer.

This is not to say that there is one best design or that one design will meet the needs of all participants. There is no unilateral outcome when participants interact with designs (e.g., the girls experiences in X’s class). This is where the construct of rhizomes (and the messiness of rhizomes) can be used to examine how identities and subjectivities both align and bump up against designed places. In the school and in X’s class, gender, race and class echoed throughout the spaces. The echoes reverberated among the participants’ identities and subjectivities. X’s identities and subjectivities bumped up against designs of teaching and learning in school, but he was persistent in constructing and preserving his liminal status and space. His ability to do this is not from sheer will however. He leverages the privilege of his race, class, and gender and is afforded opportunities to operate at the margins while still maintaining the security of optioning back into (or exiting) the social order of the school. The
students, however, do not have these same options to leverage. This complicates the classroom space and the affordances of X’s design for teaching and learning.

Because designs should attend to the affordances of the setting, the texts, the tools, and the participants, it would be antithetical to the construct of design to call for a unilateral design of learning. In other words, the designer has to think about the setting (where you are), the purpose (what you’re trying to do), the participants (who you’re doing it with), the tools (how you’re going to do it), and the texts (what it’s about).

This is a caution to policy makers debating how to bring 21st century literacies and ICTs into curriculum and instruction in schools. Just because teachers are using Facebook and My Space to communicate and share stories, doesn’t mean the logic follows that they’ll use social network sites as professional development tools in the way that the professional development specialist may want them to. The same can be said for bringing students’ out of school literacy practices into schools. In- school and out-of-school practices operate according to different logics or grammars; when schools co-opt these practices, students will not use them in the ways they do out of school.

More dynamic learning environments cannot be leveraged in schools without rethinking, redesigning, and shifting institutional norms and
educational frames around technologies, teaching, learning, and assessing (or what and how it means to learn in school). Educational reforms that seek structural and/or cultural changes in schools need to attend the logic or the grammar of the designs they seek to change or include. It is not enough to simply think about how to change the practice (e.g., through top down, bottom up, networked reform initiatives) or how to bring the practice into school (e.g., out of school literacies, digital mediated games, cell phone technologies). We have to think about the inherent logic or grammar of these designs and how these designs are (or are not) congruent with how learning has been framed in schooling contexts. This is a central point. The frames need to shift to attend to the logic or grammar of changing temporal and spatial ways of learning. We can add bandwidth, but we can’t loop digital practices into analogue systems and expect dynamic learning spaces.
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