URBAN MIDDLE SCHOOL STUDENTS AND THE DEVELOPMENT OF CULTURAL LITERACY: A PERFORMATORY APPROACH TO TEACHING, LEARNING AND TECHNOLOGY

by

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A dissertation submitted to the Graduate Faculty in Urban Education in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2009

This manuscript has been read and accepted for the
Graduate Faculty in Urban Education in satisfaction of the
dissertation requirement for the degree of Doctor of Philosophy.

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THE CITY UNIVERSITY OF NEW YORK

Abstract

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This auto-ethnography describes the development of exemplary teaching practices in the context of an urban middle school technology class with a socially and culturally diverse student population. The teaching practice that was studied was situated in a learning community of approximately 250 middle school students in New York City between 2007 and 2008. This study documents, through the use of vignettes, the development of everyday practices of using performance and technology as tools in the creation of technology infused learning environments that support the cultural literacy and social development of students and increases teacher responsiveness and receptivity to students.

This account reveals that a performatory approach to teaching and learning creates an environment where learners become aware that they are learners and encourages risk taking, collaboration, creativity, and individual responsibility for supporting learning environment that is created. When enacted through the framework of cultural historical activity theory (CHAT), the teaching activity concerns itself with the activities that the members of the learning community are engaged in, the social relationships that give rise to and are produced by those activities, the historical development that is taking place, and the role that cultural artifacts (language, computer technology, school policies) play in the creation and development of the learning community. This approach achieved positive impact on teaching and learning within urban school settings that include high population density, cultural diversity and other issues that are specific to urban centers that are focal points in globalization. The study used an ethnomethodological analytic lens to view video taped performances, field notes, and artifacts (student and teacher) as resources in giving accounts, providing rationale, and describing activities, and meanings in learning environments that were created.

ACKNOWLEDGEMENTS

What would it mean to make this experience, the production, presentation, and subsequent completion of my dissertation, a joyful one? The readers of this document and all of its iterations up until its final form have shared in this activity by virtue of their feedback or willingness to listen to me talk about the dissertation. I have enjoyed the graduate school conversations with my peers in and out of the classroom and I have gained an understanding and appreciation of the complexity of learning environments, especially those that work!

The task, the production of a dissertation, is daunting and can lead to feelings of anxiety and isolation. Joyful activity does not mean that there is an absence of pain or struggle. As a New York City middle school teacher I understand how my students feel when confronted with a complex and unfamiliar assignment. As a human being I understand that the fullness of life requires engagement with the unfamiliar. I consider the readers, listeners, and people in my life who have influenced me as part of the community of people that is helping me create an environment in which I can accomplish things that I could not accomplish without their expertise, experience, support, patience and love. Thank you!

In particular I'd like to Ken Tobin for welcoming me into the squad and providing the feedback, leadership and community that I needed and to Carolyn Ali Khan, Chris Siry and Preeti Gupta for being my favorite people to learn with. My thanks to the rest of my committee, Carrie Lobman, Mark Zuss, and Penny Hammrich, your help and comments along the way were invaluable. Mami, Papi, Connie, Christy and Cheli, thank you for always making me feel important. Finally, I'd like to thank Migdalia and Jessie I could not have done it with out your love, support and forgiveness for all those times was too tired or too stressed.

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Introduction

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The Setting

New York City educators are faced with an urban environment which features the "technification" of production and communications, increased migration, new concepts of citizenship and transnational identity, a widening gap between rich and poor, the deterioration of social services, and the transformation of culture and social institutions (Crahan and Vourvoulias-Bush, 1997). In the context of globalization, teaching practice must address the contradictions that are raised in bringing together multi-cultural, and shifting notions of what children should be learning as they are prepared participation in the workforce, urban communities, and a highly interconnected world.

The study of teaching practice that is described in this chapter and those that follow, takes place in New York City during the 2006-2007 and 2007-2008 school years. At the time New York City public schools had been under mayoral control for about six years and No Child Left Behind Act of 2001 (NCLB) had been the law of the land for seven years. The discourse in the public schools among teachers and administrators included terms such as "accountability" "data driven instruction" "life long learning" and "twenty first century skills." The population in New York City based on 2006 estimates from the U.S. Census Bureau website (2009) was estimated at over 8.2 million, the local economy was in recession, public schools were overcrowded, and student achievement while improving, according to a Dept. of Education press release (2007), stubbornly maintained patterns of gaps in achievement along race and class lines and performance drops as students moved from elementary to middle school. High school graduation rates hovered at around 52 percent according to another press release (2008) during the same

time frame. Under the Bloomberg administration schools were issued annual report cards that held them accountable for yearly progress. Schools that did not demonstrate adequate student progress would be given low grades and successive low grades would result in a reorganization of the school. Administrators and teachers were required use student performance data available from the Achievement Reporting and Innovation System (ARIS) system to "drive" instruction in areas of student learning that were "in need of improvement" as indicated by analysis of system reports.

> My first year at Manhattan middle school had been wonderful, the kids were high achieving, the teachers were great, everyone worked hard but it was self-generated pressure and we really enjoyed coming to work. That slowly started to change as the ARIS system and the new report card turned us into a "C" school. It was very hard for us to show progress when all of our general education students performed at level 3 and 4 and very easy to score lower. From then on the work became more stressful. The administrators and the teachers had a hard time processing the "C" they weren't used to "failure." I became an outsider to the whole process, I didn't believe in the grade and I didn't believe in pushing students who were doing well to do even better. They were already working hard. What was the reward for working hard and doing well, more work?

Manhattan middle school was a small school that had increased in size over the course of 5 years from 193 students to 385 in the 2007-'08 school year and occupied the top two floors of an elementary school. The student population economically (23% on average were eligible for school lunch) and ethnically diverse with the composition of students on average being White (44%), Asian (30%), Latino (13%) and African American (12%) with less than one percent including all others[1].

Teacher Researcher Performer

I undertook the study of my teaching practice because I saw this as the logical next step in my development as an educator. Teaching had become my second career after nearly two decades of work for Fortune 500 companies and Wall Street firms as a technology manager and consultant. I had been drawn to education via my participation in non-profit youth development organizations such as the All Stars Project in New York City were I had been a financial

[1] Demographic data compiled from NYC Department of Education School Report Cards 2005 – 2008.

contributor, volunteer, and a board member. As a volunteer I received training to participate in workshops with high school students that was based on an approach to human development known as social therapy (Holzman and Mendez, 2003). This approach, located within a body of work referred to as CHAT, included looking at human activity as performance. My affinity for this work had it's roots in my own up bring in New York City as the son of Puerto Rican migrants living on the Upper West Side of Manhattan from the mid 1960s to the late 1980s where I participated with great success in outside of school learning environments that were led by Puerto Rican and Black community activists. My exposure to personal computer technology while I was in college led to an undergraduate degree in computer science and my subsequent independence and "rise" out of poverty and the beginning of my professional career in technology.

During the economic downturn in New York City after the attacks on the World Trade Center in 2001, I found myself reconsidering my career options and applying to the New York City Teaching Fellows program where I was accepted as an elementary school teacher. While I originally planned to teach technology to high school students circumstances led me to a third grade classroom in the South Bronx and subsequently to Manhattan Middle School where I worked for four years as the technology teacher. It was during those four years that I actively developed my teaching practice as I pursued my interests in technology, education and performatory approaches to human development as a teacher researcher.

Developing the Ensemble and the Emergence of Leadership

The first study to be considered took place over the course of two school years in a 12:1 (12 students to 1 teacher) special education class. These students all had individual educational plans (IEP) that detailed learning disabilities and modifications that were to be carried out in the

learning environment. I was not certified for special education instruction and there were no assistive technology requirements that needed my attention so the curriculum roughly paralleled that of the 6th graders in the general education setting that I was teaching at the same time. Needless to say, the teaching practices that I employed with general education 6th graders needed to develop in response to the challenges presented by the special education students.

I decided to devote 20 to 30 minutes of class time twice a week to playing theatrical improvisation (improv) games (Lobman and Lundquist, 2007) and working on creating an environment where students took turns leading group activities. The improv games focused on developing listening and observation skills as well as collaborating and playing according to rules. I noticed that games that incorporated rhythmic sound and motion were more popular with the students than games that focused on story telling. The students also learned to run the class meeting and follow the agenda for the meeting and even made contributions to the agenda by choosing the group's activity. Over the course of the school year student leaders emerged and class routines became familiar and the level of trust and cooperation in the classroom increased.

I was better able to work with pairs of students and individuals as the group became more capable of independent work and waiting patiently for my attention. Students became more accountable as leadership was valued as an opportunity that was afforded only if responsible actions were part of the performance. Leadership became more dynamic and distributed as different leaders made demands on me to be more fair in for example, selecting the leader for the day. Students decided for themselves that there could be more than one leader and that person could lead certain activities. The development of our ensemble was by no means linear and there were many setbacks as students struggled individually to contribute in positive ways to the group and maintain composure when in a leadership role. The special education students were able to

work on projects using the same technologies that the general education students had and were generally happy to come to technology class.

Emotions figured significantly in what was possible in the classroom. Students would often come into the classroom upset from some conflict that had occurred earlier, the class meetings and routines of playing games at the beginning of the meeting helped students transition into the room by providing opportunities to be in charge (in control of what was happening instead of out of control) and to do something that was fun and produced good feelings and laughter. Emotions in the classroom were acknowledged as a legitimate part of the environment as the group created a zone of emotional development (ZED) (Holzman, 2009) for individual students. In a ZED the group became significant in helping the individual with an emotional situation, the practice of the teacher pulling a student aside as a separate activity while everyone else was kept busy was abandoned in favor of having the group take responsibility for the emotional state of the individuals in the room. While disruptions and absences and incomplete work continued to remain part of the learning environment, students had developed expanded agency and increased their opportunities for new learning experiences by learning to cooperate and bring leadership to the group. In the following section I discuss the dominant ideas on technology uses in education and the second study.

This work is never as easy as it reads. There were so many times when nothing worked or when it was working and someone would throw a fit for whatever reason and throw us into the more familiar patterns of teacher reprimanding students and threatening consequences. I would often walk out of the classroom after difficult sessions and just complain to anyone who would listen about how hard it was to be patient and not be mean right back at them. Then there were days when it was like magic and it was amazing what we could do together. After talking it out with someone and venting frustration I would regroup and figure how to help the group to be a group the next time.

I can easily imagine someone asking if I wasn't sacrificing too much "time on task" doing all the group work and improv games. I would point out that not being able to work in a group reduces the quality of "time on task" and ultimately contributes to the overall underdevelopment of the student. Special Ed students are routinely seated apart to minimize group interactions.

New Relationships and Online Forums

The dominant understandings of the use of technology in educational settings come from the seminal work of some educational technology pioneers. Seymour Papert, an early pioneer and advocate of using computing resources for learning, understood the challenge that computers posed to educational values at the end of the 20th century (Papert, 1993). He argued that the computer would allow children to explore the world in a self-directed manner using speech, touch or gesture. He envisioned of an epistemic "megachange" in educational interaction when he posited his "Knowledge machine" (1993). Papert's use of Piaget's theories and use of technology as a tool to assist in the social construction of knowledge in the individual is a dominant strand in current thinking about technology in education.

James Gee (2003) asserts that video games provide a model that can be used by educators to inform the design of active learning environments so that they are providing students the opportunity to experience the world in new ways, form new affiliations, and prepare for further learning. For Gee, the digital devices that are found in classrooms provide an opportunity for redesigning the classroom experience as an embodied and situated learning experience. Gee argues that we have to situate and embody the knowing, using certain design principles, given the new ways we have of accessing it (knowing). Gee's arguments are gaining traction and are currently influencing the direction of Web 2.0 research (highly interactive, user content driven, multimedia Internet technology) in education.

In the 1990s a cultural historical activity theory (CHAT) approach to a computer mediated learning environment was embodied and enacted in the Fifth Dimension project at Michael Cole's Laboratory for Comparative Human Cognition (LCHC) at the University of California San Diego. Cole's research team discovered that the design of the computer mediated activity

system was “co-constituted with its con-text” (Cole, 1996, p. 307). Using a CHAT framework Cole drew attention to the institutional setting and the cross-cultural aspects of understanding and meaning making that are going on in the computer mediated learning environment. Common to the points of view of Papert, Gee and Cole is the recognition that introducing technology into the learning environment opens it up to contact with the world and to redesign and creating some of the conditions necessary for transformations to be possible. The use of technology in this study adheres most closely to the schools of thought represented by Cole and Gee. What is revealed in this study is that technology use can be viewed as “completive activity” (Holzman, 2009), that is “disruptive” of existing cultural structures, and co-constitutive of the agency (Sewell, 1992) of students

The transformations that are of interest are the relationships between human begins in the context of their joint activity.

The second study examines the development of media literacy, technical skill development, the role of online forums, and messaging technologies in classroom relationships. Approximately 150 sixth grade students were introduced to the MOODLE online course management system in October of the 2007 - 2008 school year. It was the second year that I had used the technology with sixth graders and although it had limitations and was designed for use by college students I saw value in using the online forums and messaging technologies. I was also able to present assignments and other information to students consistently and efficiently using the system.

Papers that begin with technology invite the notion that technology in and of itself is the topic

There was reciprocity in how the system was used, the more I interacted with students in the online system the more they interacted with me. In the prior year if my usage of the system fell student usage would fall correspondingly. However, when I established student facilitated forums and allowed them to use forums for any discussions they wanted, a core of about a dozen

students emerged in this environment and kept various discussion forums going as my usage of the system dropped. They kept activity from falling to zero as had previously happened on weekends and during breaks. What emerged was a place for students to connect with each other and interact of their own accord.

Student interactions varied from playful to mean and from silly to intellectually challenging. Students organized themselves in the online environment in ways that where similar to “real world” arrangements. When student online communications became mean those interactions became a focus of conversation within the classroom about the public nature of online comments and the detrimental effects on the stated goal of building community. When dialogues intentionally or unintentionally excluded certain members of the community from participating the dialogues became a topic of classroom discussion and students worked on making public forums more welcoming of different ideas.

Students spent a great deal of class time creating multi-media artifacts such as PowerPoint presentations, graphic cartoon animations, websites, and movies. They were also challenged to take responsibility for their digital creations and their online communications by responding to the question ”Who is the audience?” I learned that students did have a sense of an audience for their online interactions and that anticipation of audience and its response factored into their decisions on what to put on display in the digital medium. Those decisions included making contact with friends, being provocative with adversaries, increasing status through the accumulation of social contacts, increasing status by displays of academic superiority and increasing status through humor or coolness.

This environment also provided expanded opportunities to interact with students outside of the classroom and to build relationships that would not otherwise have been possible. Students

from different class sections were allowed to interact online with students who were not normally accessible because of the way classes are organized in middle school. Many students were able to reconnect online with elementary school friends who were in different sections.

Producing a Math Video Project

The final study examined the use of video technology in math learning, approximately 150 7th grade math students where given the opportunity to produce math related video productions for extra credit. In preparation for generating ideas and creating videos the students participated in performance workshops and directed to perform their relationships to math. The students were directed to use the material generated in the workshops to get them thinking differently about math and to include the emotional aspects of their relationships to math in the videos. The performance and video production workshops took place over the course of five weeks in the classroom on Fridays during math class. The cooperating math teacher organized the class into half hour long sessions were he would work with half his students while the other half participated in the workshops. The two groups would then switch after a half hour.

Given the open ended nature of the project students produced an assortment of videos, many of which were entertaining, some of which contained math content which was accurate, some had misconceptions and some that produced the effect of causing the cooperating math teacher to see the students in a new light and transformed his relationship to the students. There was a high degree of technology skill required in producing the videos, much of it was provided by the students and some was provided in the context of the workshops. The cooperating teacher was not required to provide technology support but his teaching practice was impacted upon by the content that the students produced. During the course of the workshops and the video productions there were many opportunities for students to make public their private struggles

with math learning which transformed how they felt about math learning while they were performing peer tutoring or being teachers of math. Of equal importance was the enthusiasm that students had for the project and how that transformed how they collectively felt about math class on Fridays. This project was particularly exciting because it was the first time I'd had an opportunity to positively impact upon teaching and learning outside my own classroom and the methodological approach "held up" and the "results" were valued by another teacher with a different set of commitments.

In the next chapter I detail my own history and my own commitments to the methodology that I have alluded to in this chapter. In chapter 3 detailed accounts of the development of leadership and the group are provided. In chapters 4 and 5 the daily activity of the 6th grade technology class is presented and the process of creating the 7th grade Math Video project is described fully. Chapter 6 presents a discussion and outlines opportunities for further research.

CHAPTER 2

A Postcolonial Guy

In this autobiographical chapter I'd like to look at identity. The question as to whether or not I have a central identity is intellectually intriguing but is not salient to my current intellectual project. The reasons will become apparent in this chapter. To the extent that I have been socialized to have an identity and I am attributed an identity by others, by virtue of the things I cannot change such as the color of my skin, or the people I was born to, identity construction must be attended to. I have found that performance and the group are useful constructs with which to think about identity. As a performer, I can "deal with" the contradictions that are raised in identity construction. For example, I can perform White and middle class. The White middle class performance requires a working knowledge of middle class culture and a mastery of standard American English. My middle class White performance can acknowledge my history (Puerto Ricans have been colonized for 500 years)[2] and moves on without seeking redress or restitution for wrongs committed in the past (Why are Puerto Ricans not considered indigenous people?) while at the same time pointing out that injustice has occurred and continues to occur (Why is Puerto Rico still an island full of foreign citizens?). It is a performance that is designed to position the (non-White) performer to enact change (on all levels) in the dominant culture by making possible the establishment of relationships (partnerships) with members of the dominant culture. This is how I view the nature of the post-racial, post-identity politics that candidate Obama ran on during the U.S. presidential election of 2008. The performance, seen as dialectic, has changed the nature of the dominant culture (the audience) and has changed what the performance of a Black political leader in the dominant culture is (no longer necessarily based in the identity politics of race). I will be presenting some of my relationships and some of my

[2] Throughout this chapter I use parenthetical comments as voice over to the manuscript in addition to text boxes.

experiences as an individual growing up in the mid 60s and 70s and early 80s on Manhattan's Upper West Side and attending public schools. I will also describe my memberships in different communities and look at what I might have learned at the time and what I am learning now as I re-visit some of these experiences.

Kenneth Tobin recently prompted, or perhaps primed me, in a conversation where he referred to me as "a postcolonial kind of guy" while we chatted about my dissertation on the phone one Saturday morning. I don't recall much else about that aspect of the conversation. I let the comment roll around in my head for a couple weeks and when Tobin mentioned postcolonial research during a dissertation writing group meeting I responded with a revision to this chapter. Throughout this chapter I will be fashioning a postcolonial lens through which to view the accounts that I have presented, so that I can make meaning with what Tobin is suggesting. I will also explore notions of identity through a social therapeutic lens and finally identify some of the implications for a postmodern, postcolonial guy working in public schools.

Reflections

I recognize my father's nose, and my mother's eyes as I shave in the mirror. I see the wall behind me covered in tiles and paint that my wife and I picked out. My face looks to me as it always has, but close examination reveals what is overlooked in the normal living of life. My hair has thinned, my face is fuller, and there is some graying at the temples, I have changed over time. I am still recognizable as the 25 year old in the wedding picture on the dresser, but the mirror is telling the current story. The genetics, the culture, the history, and the current story are all included when the reflection in the mirror is considered. These are the formative influences of everyday life.

Many of the beliefs, habits and pedagogical approaches that I bring to teaching are creative imitations (Holzman, 2009) of teachers that I have learned from. When I teach I am also engaged in an improvisational performance (Lobman and Lundquist, 2007) that includes, students, our current situation, our collective histories and the material world around us. If that were not included in this reflection, it would be like staring in the mirror for no reason, with no background, and no purpose for looking in the first place. Shaving in the mirror, and seeing that I am in the bathroom, in my house, with the intention of going out into the world to teach is what brings meaning to the reflection.

Decolonizing Methodology

Linda Tuhiwai Smith (1999) identifies 25 indigenous projects, some of those projects, story-telling, democratizing, reading, writing are my projects as well, however, I've never identified myself as an indigenous person. My father came to the United States from Puerto Rico as a thirteen year old on a cargo plane that lost a door in mid-flight in the 1950s. My mother came as a child as in the late 1930s, on a ship and remembers eating nothing but apples for several days. Both of my parents lost their mothers in childhood and were separated from their fathers, until their families were reconstituted in the United States. My grandparents were born before Puerto Ricans became citizens of the United States in 1917 through the Jones-Shafroth Act. Prior to that, there was a period of Puerto Rican autonomy that was cut short by the Spanish American War. The Spanish had ruled Puerto Rico since 1492, colonizing Puerto Rico with Spanish culture for about 400 years. The Catholic missionaries that arrived with the Spaniards played a key role in the colonization of the Puerto Rico and the "education" of its people.

I was raised in New York City. I have been to Puerto Rico and I have been to Spain, I blend in until the differences in my Spanish and the Spanish dialects of Spain and Puerto Rico become

apparent. The migratory experiences of my family are common for Puerto Ricans and my own ambiguity around the idea of a central or a fixed cultural identity is consistent with what Juan Gonzales (2000) describes as a profoundly schizophrenic migrant experience and is summarized with the following: “The contradiction of being at once citizens and foreigners, when joined with the reality that ours is a racially mixed population…”

I’ve had more than a few people ask me what I was. More often than not they are surprised to learn that I am Puerto Rican, sometimes I can see that the surprise is pleasant for them, they are Puerto Rican themselves and they identify with me. Other people don’t know what a Puerto Rican is. Students have stereotypes about Puerto Ricans and are sometimes surprised by the contradictions I raise for them. They ask questions. “How can you be a teacher?” ”How come you don’t have an accent?” “Are you poor?” There have been several students who refused to believe that I was ever poor and that I grew up in dangerous public housing projects. One of the sources of my success, being able to fit in to the dominant culture by performing White middle class, is also a source of my being “othered” by island born Puerto Ricans and Spanish speaking children in New York City public schools as we struggle with the contradictions. An identity-based view of my history, which was similar to that of so many other first generation New York Puerto Ricans, produces these apparent contradictions. I believe that approaching identity construction, as performance, in relation to membership in different communities is helpful in resolving the contradictions.

Education and Being “Othered”

As I remember my K-12 career as a New York City public school student the negative experiences seem to out weigh the benign and/or positive experiences. It would be insincere of me to even attempt a balanced perspective from my own accounts. I would rather reflect on the

outside of school experiences that offered models of learning and leadership that were alternative models to the to public schooling that I participated in. But first I will recount some of the experiences in school that are vivid examples that fuel my bias and are not uncommon for students three decades later.

I started attending school in 1968, when I was five years old. I was in a Head Start program and I don't remember much except that it seemed fun until the day I met my first bully. He and his friend forced my playmate and I off the Seesaw by threatening to hit us. It was the first time I can recall being afraid of another child.

Later on, in the 4th grade I was tracked into what progressive educators at the time called an Open Classroom. I don't remember what I learned except that I was afraid of reading aloud, I stuttered, and I couldn't seem to do the math very well. We rotated to different work areas all day and I remember that there were children who made fun of me on a regular basis when we worked independently, I was somehow different but I didn't know how. That is also when the bullying started to escalate to a routine occurrence, and it seemed that I was an equal opportunity target for everyone.

My elementary school PS 145 was located on the Upper West Side of Manhattan and was economically and culturally diverse. My classmates were Puerto Rican, Dominican, White, Black, and Chinese. I had the same teacher and classmates from 4th through 6th grade. I had been told I was pretty smart, but the White kids in the class were always smarter. When I compared my grades with others I was somewhere in the middle of the pack rarely the highest never the lowest, but I do remember going to different specialized schools to take admission tests in the 6th grade. I never did well enough to be accepted into any of those schools so I went to the neighborhood junior high school.

Junior high school was an absolutely miserable experience for me. I was tracked into the Special Progress class. The White kids had all gone to other schools. The only people I knew in junior high school were the Latino kids who had been at my elementary school. Schoolwork never seemed to be much of a problem, but there were many fights with other students, these were a continuation of the fights that had started in elementary school, for some reason I was a still a target for bullying and the violence escalated, now it was occurring in the classroom during lessons, not just during independent work time, or in the hallways, or at gym. I dreaded going to school and avoided being there during lunch (we were able to go home for lunch) and I never attended school-based after school programs. My math scores in junior high were just passing and my only interest was in science. Otherwise, I spent my time reading, playing baseball in the park with my best friend and his other friends, and spending my free time at home with my family or at Church.

In a diverse classroom (economic, racial, ethnic) I had been an average student, in a less diverse classroom (poor, Black and Latino) I had risen to the top but I became a more available target of abuse for my peers. Neither situation provided the support and the safety that was required for my development as a student or as a social human being. The issues that were identified with math were never severe enough to warrant extra attention but had an impact on my ability to gain access to specialized schools with diverse student populations and greater resources. Additionally, the school environments provided only limited access to networks of friendships, against the backdrop of the poverty and the social milieu that I was being raised in, school was not a place where my parents could advocate on my behalf, even though teachers liked me and thought I was a “good kid.” I fell through the cracks.

Religious Instruction

Sister Maria Magdalena was the Catholic nun who ran the Catholic school and organized the primarily Latino parents on the Upper West Side of Manhattan during the 60s and 70s. Sister Maria was very petite. On Sundays Sister Maria ran the Sunday school and provided religious instruction in English and in Spanish to parents after Sunday Mass. She trained parents and their teenagers to run Sunday school classes for younger siblings and other neighborhood kids. Sister Maria personally taught everyone at some point in their lives and prepared them for the Catholic sacraments. These were important membership rituals and central to the Latino Catholic community at the Ascension Church on the Upper West side in the 1970s.

Sister Maria also ran the summer day camp and after school programs. As a junior high school teenager I took my turn teaching Sunday school, tutoring in the after school program in the church basement, working as a summer day camp counselor and doing anything else that Sister Maria told or asked me to do. I'll always have this image of a petite Sister Maria standing in the middle of a group of towering teenage boys and commanding and directing them to carry out the day's tasks. To us, Sister Maria was the towering figure.

Now many years later I see the influence of her teaching in my own ideas about teaching. The idea that I could do teaching was in part established because I had been a Sunday school teacher. She had provided experiences that framed teaching as an everyday activity that anyone could do and that everyone who was part of the community should do. Sister Maria can be viewed as someone with an institutional role and her embodied performance of that role was seamless. Seven days a week, Sister Maria was "Sister Maria," she was the Church to the community and she insisted that we were the Church that she served. That seems to be the nature of the commitment she made to God and the Church.

Her service to the Church included keeping kids safe, providing employment and providing a social atmosphere for immigrant and migrant parents and their children to build and produce the community in a way that was consistent with the rituals and instruction of the Catholic Church. She was also willing and able to hand out leadership opportunities to the members of the community. In this way, Sister Maria provided an example of democratic Latina leadership to an entire community of hundreds of Latino families.

The difficulties of the poor people of color in the Upper West Side neighborhood I grew up in were exacerbated when our neighborhood became gentrified in the early eighties. The college bound teenagers that Sister Maria had trained were in their 20s and moving out on their own. Others started to find work as Police Officers, Con Ed workers and other kinds of blue-collar jobs. Some stayed in the neighborhood others left. When it was my turn to find a place to live in the late 1980s I also had to leave the neighborhood. The impact of gentrification, rising rents and shortages of affordable housing, made it difficult for many of us to find places to live near our parents and sustain our connections to our communities.

Our ability to be a sustainable community depended on people being able to create and maintain relationships with other people in a time and place. This was before the Internet and cell phones began to challenge notions of contact with community even as affordable airline travel was creating the conditions for the "circulatory migration" that produced contradictions among Puerto Ricans as to what their nationality was and what broader communities those in the Diaspora and on the island belonged in (Duany, 2000). Over the last 20 years these contradictions have become even more apparent as notions of self and identity have been challenged by the technologies of the 20th century (Gergen, 1991).

The situated practice (Lave and Wenger, 1991) of building the community at Church that existed out side of school provided numerous opportunities to grow and develop and take on different roles and responsibilities as we demonstrated knowledge and expertise in the course of our interactions with others. That practice was dependent on the physical space provided by the Church and the financial resources of the community that the Church depended on to fund its programs. As the individual families in the community struggled to remain within physical proximity of the Church and began to participate in the migration patterns described by Duany community membership turned over and leadership changed. Unfortunately, Sister Maria was re-assigned to another parish and we lost contact.

Marital Arts Practice

Bruce Lee (a famous martial artist) and I have something in common. We were both practitioners of the same martial art and we have a common kung fu ancestry that is grounded in philosophy, religion and teachings of Daoism, Buddhism and Confucianism. Lee's teacher, Yip Man a Chinese Kung Fu Grandmaster, taught my teacher's teacher, Moy Yat, another Grand Master. This lineage makes Bruce Lee my great kung fu uncle, in a sense, we have kinship and we are members of the community of Wing Chun practitioners.

While I was learning the kung fu style known as Wing Chun, my teacher, Moy Hop Luk, whose given name American name was George Whitmore, taught my kung fu brothers and I our Wing Chun lineage. Sifu, that's what we called our teacher, explained that if we ever went to another Sifu we would be asked who we learned from and so it was important for us to remember our lineage. Our lineage carried information that other practitioners used in assessing us for membership in their own communities of practice. My training included many hours of practice and many conversations about technique and practical applications. Theory and practice

were discussed simultaneously. We were always eager for more techniques, we were eager to learn.

An overview of philosophical, religious and pedagogical underpinnings of the martial arts is provided in a volume edited by John Donohue (2004). To summarize briefly, Daoist thought emphasizes concentrated thought, flexibility, and right action as it raises awareness of contradictions, duality and the dynamic nature of the universe. Confucian principals emphasize "personal refinement" and "individual rectitude" as the basis for social systems and the individual is located within a "social nexus" and therefore needs to respect others. Buddhist teachings maintain that, "all life is suffering that can only be relieved through the correct perception of reality, a perception that sees through subject/object dualism." In practice this translates into a highly organized learning environment that accommodates, diversity, individuality, and fluid circumstances as well as rigorous, reflective and engaged critical thinking in dialectic relation to right actions and the community.

The interactivity of the group was central to our development. Sifu would promote us as a cohort, which meant that we all got new techniques at the same time. What seemed important was that we worked together to master our techniques. It would make no sense to promote a student on his own without insuring that he had peers to practice with. We were competitive, but everyone had strengths and weaknesses, our practice included exposing each other's weaknesses and respecting each other's strengths. Everyone one had something of value to bring to our practice and received something of value. When I was among the other students in the class I never experienced any fear or the anxiety that I had when I was in school. Teasing and joking was good-natured, we experienced high levels of camaraderie. As a matter of fact I was somewhat fearless in my approach to practice and would always push my partners to the edge of

our ability to practice with out inflicting a harmful blow. There were many occasions where my aggressive practice with Sifu nearly got me hurt, but I had learned to trust that Sifu had better control, knew my weaknesses and would not hurt me, I felt safe doing dangerous or risky things with people I trusted.

Over the course of a couple of years we added new students to our little school and we (16 years olds) were given the task of providing foundational training (teaching) to the newer students (including adults). Sifu explained it was important for us to understand that the newer students would never have the same access to him that we had. Our taking responsibility for the newer students allowed him to continue to focus on our instruction while at the same time expanding the size of the school and developing his own practice (a hierarchy based on skills and commitment). Our participation in training newer students would also develop our teaching skills and prepare us to be Sifus in our own schools. Lave and Wenger would describe us as "old timers" who were now responsible for transmitting the knowledge, and activities of our community to "newcomers"

Sifu was a Black man in his early thirties and he began teaching us when I was about 14, which was around 1977. He had come to our day camp one summer where I was working as a camp counselor. He gave us a demonstration and invited us to become students. The fee for lessons would be $2.00. A bunch of us decided to go check out a lesson. Four of us stayed with Sifu until we were in our 20s. Although I didn't recognize it at the time, he was a grassroots organizer and a Black leader who was doing positive things for inner city kids. What he accomplished in the late 1970s and 1980s would not be possible today. He operated with out insurance, and without a permanent location and no funding. He worked with Churches and other community institutions to acquire space for us to practice, and the $2 fee was symbolic, our

demonstration that the training was worth an economic commitment on our parts. Our parents never questioned his credentials and never came to our practices. What seemed important was that we practiced at community based institutional locations (safe places) and that we were practicing amongst ourselves. My parents knew the other Latino boys, they knew where to find us, and they believed in safety in numbers. The school was not possible without the expertise that Sifu made available and it would also not have been possible without the willing students he had recruited. If the students ever became disenchanted, the school would have ended. The school eventually did end, we grew up and the circumstances of our lives changed. We all moved on.

As I described earlier, Sifu's pedagogy was based in an entirely different system of learning than we were exposed to at school. In his book The Geography of Thought, (2003) Nesbitt explains the significance of the difference between the style of thought that is developed in Western education and the style of thought that is developed in East Asian traditions. Embedded in Chinese kung-fu training is the Daoist tradition and various Eastern traditions, which emphasize understanding the world as something that is changing constantly. In this tradition it makes no sense to view an individual in isolation, people are connected to each other and their surroundings in a multitude of ways. The emphasis in thinking can be understood as holistic. The proper unit of study is the relationship and the method can be thought of as hermeneutic, the parts to the whole. According to Nisbett the Chinese dialectical tradition is different from the Western dialectical tradition. "While the Chinese try to resolve or transcend contradictions, Westerners try to obliterate them."

The Purpose of Education: Work Hard and Make Money

In my family, the role of the first-born son was to work hard, set a good example, go to college, get a good job and make a decent living. High school had been a repeat of junior high

school except that the problem of bullying disappeared (maybe the kung fu had done something to remove me from the soft target list, maybe I was in a different kind of gang, maybe my training produced a different physical performance, I stopped being afraid) and I was at a culturally and economically diverse high school where I could blend into the crowd only occasionally breaking with anonymity when I became involved in activities that were of interest. At which point, I became a target albeit a harder one, for more subtle forms of bullying, i.e., being called a "brainiac."

Through a stroke of good luck I met Professor Susan Epstein who taught computer science at Hunter College. She had worked on Wall Street and I was interested in people who knew about making money. I took three courses with her in back to back semesters. I worked my way from being a C student to an A student. Along the way I'd learned that computer scientists were interested in, among other things, creating computers that could reason and learn. It was here that I was first formally introduced to theories of human learning and computer learning. As a computer science student I learned how to program in a social setting. I would hang out in the computer lab, and eat pizza and Chinese food with other students while we helped each other debug programs and argued the merits of our favorite technology. I acquired the language and habits of a new group so that I could gain membership, learn the practices of computer science students and their access to resources i.e., the new computer lab. Our professors provided guidance and support. I enjoyed programming because I didn't have to accept a theory and memorize it. I could put it into practice and prove that it worked. I was quite

Going to Hunter College was an equally alienating and demoralizing experience. I had hoped to major in biology but I failed Chemistry 101 during freshman year. I spent most of my college career not believing I was smart enough I was competing with the White students in science classes again, not liking the environment, and just waiting to get out. I gave up on science, and switched majors to economics. I discovered that I was predisposed to being really good at using, taking apart and rebuilding personal computers, which were new at the time. I knew that expertise with computers would provide me with access to a high paying job. I switched majors one last time, to computer science.

happy whenever I was working with a programming problem. I had achieved a state of *flow* (Csikszentmihalyi, 1990) in learning computer science. All I could think and dream about was programming and I was very happy to spend my time working with computers. My world had become structured and organized as a computer science student even as the complexity and sophistication of what I was learning increased. Professor Epstein was a mathematician by training and her instruction was structured to the point of being fairly rigid as it played out in her style as a teacher. Many students avoided her classes and she was not generous in her grading. I found comfort in an environment with high expectations and a predictable instructor.

On the occasion that I presented her with an excuse as to why I didn't understand a mathematical concept she quickly pointed out a contradiction in my claim. In her mind, my activities as a programmer demonstrated that mathematical concepts were available to me and that mastery, in her opinion, was just a matter of hard work. Her bottom line was that my issue with mathematics had nothing to do with my cognitive ability to do mathematics. Telling students that their issues are irrelevant may not be the most sensitive approach. At that point in our relationship (I trusted her) I could believe and understand what she was pointing out. What was helpful and clarifying was that she identified a relationship between my emotions about math (fear, anxiety, humiliation) and my capacity to do mathematics as revealed in the activity of programming (a particular performance using mathematical concepts). I would see this over and over again later in my life as I trained other people to use computers. Emotions about learning could get in the way of believing that you could learn or could motivate you to learn more than you could have imagined. Two different performances and settings for doing math had different emotions that where being produced in me at the same time.

My original interest in going to college was to have a career in science it was what I thought I was good at. Unlike the other activities that I had been good at, such as martial arts, or being a day camp counselor or Sunday school teacher, I had no community or group support for doing science (biology, chemistry). There was no one to help and there were no structures, institutions or individuals that were visible to me to provide access to resources. Furthermore, it was becoming increasingly clear to me that it was unclear how I would make money and have a career in science. My falling into a community of computer science students and discovering a mentor who was female, with credentials I identified with, and authoritative (and petite) are how I saw my way through. Those relationships provided resources and support for the emergence of a new performance that combined a passion for how things work with an interest for doing the activities that would lead to a high income. After five years I finally got out of college.

Learning on the Street

I got to Wall Street and I stayed there for the better part of two decades. I never really considered the educational background of all the people who were influential in my professional development. Looking back now, I can appreciate that I was trained to work and think by pioneers of the information age. My mentors include two managers who were MIT graduates, and managers who had worked on the first systems ever built in the banking, airlines and telecommunications industries. I also had a network of peers that I could call upon to help me when I got stuck. We used technical jargon to create and participate in a culture that valued helping and sharing. It was partly out of the pure joy of solving “non-trivial” problems and partly to achieve the status and power that went with having the reputation and ability to solve “non-trivial” problems. Reputation and relationship building was a significant motivation for helping others in this technically elite community.

In the corporate environment I learned to make phone calls, use corporate resources, participate in meetings, produce status reports and deal with vendors. I learned to perform the practical business skills that were required to operate in the broader world. I learned a White middle class performance in corporate America. I was fortunate that my corporate mentors, most of them anyway, were very generous and forgiving of my many early missteps. My career as a corporate technologist led me to consulting and eventually to the dotcom 1990s where my entrepreneurial bubble popped along with everyone else's. Along the way I made some money, bought a brownstone in Jersey City, started a family, and became interested in human development and learning.

In the corporate world, education is a commodity. It is about acquisition of skills and knowledge for the purpose of solving business problems or gaining competitive advantage. My training as a programmer had prepared me for that, but I was still socially and emotionally underdeveloped. As materially successful as I had become, I still had fear and anxiety about being smart enough. As I got older those anxieties increased and the requirements of what Joel Spring (2006) would call, life long learning in the service of industrial-consumer paradigm, had become both tedious and unrewarding. Craftsmanship and experience were de-contextualized from their value to the community in the global corporation and not afforded the same status as in the Chinese martial arts, or in the community building activities that I had experienced in my youth. What people "know" in the global economy is considered commodity to be purchased at the lowest price. Given this reality, should education be exclusively about knowledge acquisition? In the following sections this question is revisited as I describe my training to support inner city youth to perform in corporate America.

A Practice of Organizing in New York City

A door knock, a door opening, and a donation; I had entered the world of grassroots organizing in an effort to help inner city kids to grow and develop by performing. The door knock came from a volunteer fundraiser going door to door in Jersey City. She was raising money for an organization that is currently known as the All Stars Project. My generosity in that particular moment came from several places, I was a new parent and the baby had just started sleeping through the night, it was a gorgeous Saturday morning in the early spring, I had 5 or 6 bucks in my pocket and I had a six figure income. The volunteer had a nice pitch and helping inner city kids sounded like a good thing. I gave the contents of my pocket and didn't think about it again until the phone calls started a couple weeks later. The volunteers of the All Stars Project have a wonderful way of talking to people about their work and working with potential donors to say, "yes" to making contributions.

A year later, and a couple of thousand dollars in contributions to the All Stars Project, I met Dr. Lenora Fulani (she is not petite) one of the program's founders and the first Black woman to run for President of the United States in all 50 states. She invited me to a meeting of volunteers who were interested in being teachers "who weren't really teachers" at something she called the Development School for Youth (DSY), a 12-week after school leadership program where we would teach inner city high school students leadership skills. Over the next seven years, while I was busy with my corporate consulting career, I volunteered at the DSY. I learned to teach workshops using a performatory approach to human development (Newman and Holzman, 1997), I learned to fund raise, talk to strangers about the programs,

I noticed during the presidential campaign of 2008 that the discourse in the press about presidential candidates had changed from, first woman or first black to first female major party candidate or first black major party candidate.

work with young people, and build community. I was eventually asked to join the Board of Directors of the All Stars Project.

Fulani trained all of the adults who participated in working with the high school students in the DSY. Her training was intense and brought to the forefront the race and class issues that we adults brought to the program as well as what our responsibilities were in engaging the race and class issues that our students would bring. These training sessions would often push participants to the point of tears or being moved emotionally. The training seemed very therapeutic. The emotions that were a result of and generated by what we were doing were engaged as a vital part Fulani's pedagogy that was informed by her practice of social therapy. Most of the adults who could tolerate the emotionality of engaging their own emotional issues around race and class in a group setting experienced and reported emotional growth and development. We had gone into the program believing that we were teaching kids. What we discovered was that the activity of teaching the kids provided us with opportunities to grow and develop socially and emotionally. Fulani also engaged our notions of what we thought we were teaching, and challenged our assumptions about how and why students of color fail in New York City public schools.

Most of us were business people without credentials in education and believed that education was focused on the wrong things. We thought those things were related to what students were required to know, we thought that school taught children to know useless things, and that knowing the right things was what was needed. Fulani challenged notions of education for the purpose of "knowing" and "getting a job" and directed our attention to the non-epistemological activity of helping students develop new performances. These new performances would be the tools that our students would need to help them in the corporate internships that we would set up for them. What was required is that we help the students to perform without "knowing" and

related to them not as who they were, but as the young professionals they were in the process of becoming. We had to relate to them as "a head taller" in the Vygotskian sense. Performing in the corporate world meant exposing them to the culture, the skills, and the habits of the White middle class professional settings that we would support them in.

We taught them how to shake hands, dress, interview, use computers, take cues from the people around them, and reach out for help when they were unsure. We created and directed these performances together, sometimes on a stage, sometimes in a mock interview at an office. They didn't have to "know" particular things, they needed to perform in particular ways and as they performed they would gain knowledge during the course of their social interactions. Many of our students had, as I had realized about myself, stopped developing. The capacity to be social and learn from social interactions had to be reinitiated. Our method for doing so was to view hand shaking and interviewing as a performance that could be improved on with directions from more skilled performer in an environment where it was safe to take risks and make mistakes during practice.

Fulani led and directed us in our new performances and in turn we led and directed the students. Through hands-on training I had the experience of performing within a Vygotskian zone of proximal development (ZPD), while using a social therapeutic methodological approach that used a Wittgensteinian informed stance on knowing and language. I had found a model of learning and building community that resonated with me. I was teaching and practicing within a community again and when I performed, I could achieve a flow state, as I had when I programmed computers or sparred in kung fu practice.

A common thread that emerges when contrasting outside of school experiences with schooling is that the outside of school experiences have required something of the learner, not

merely attendance, but full participation and commitment. In each instance, that I've outlined so far the student-teacher relationship represents a necessary value to the community of practice, the relationship produces dialectical movement between the individual and the collective, the novice and the established practitioners, the performer and the audience.

Everyone Has a 9/11 Story

On September 11, 2001 I got up at about 3:30 in the morning. I was going to meet Fulani at her apartment in Manhattan. She had asked me to go to the polls with her in the South Bronx to do some on the Election Day campaigning in front of a school. I was going to hand out flyers and ask voters to choose our candidate as they approached the polls. At the time I was an unemployed consultant with no prospects for employment and no unemployment check. I had learned to say "yes" to opportunities to learn new things as the activity provided means to avoid being depressed. I had to get to Fulani's by 5:00 AM so we could set up at the polls by 5:30 AM. I was going to get a ride with her, since I'd never been in the South Bronx and didn't know the neighborhood.

This is important, how you were trying to be invigorated by new experiences and view your situation through new lenses.
- Chris Siry

At 4:00 AM I was walking down the street towards the PATH station in Jersey City. As always, the World Trade Center Towers loomed ahead. Some of lights in the building were always on. I always looked at them. The pre-dawn sky was clear and I could see stars. I expected a gorgeous day. I had regularly used that PATH station to get to my various Wall Street jobs and I regularly ate lunch sitting in public spaces around the Towers for the better part of my working career. I always wondered about the men who built them, I always wondered about how long they would stand. Would people in two hundred years want to knock down the Towers and redevelop the site or would they be protected as historical landmarks?

That morning I thought I was going to get hands-on lesson in grassroots politics and the political process. I was in the street in the Bronx handing out flyers and standing next to Fulani when we heard about the planes from a radio that someone in the street had playing. When the Towers collapsed, we could see the smoke in the distance as we looked south. In the middle of the confusion and shock of what was happening. I was curious about what Fulani would do next. She had many volunteers on the ground and people were looking to her to figure out what to do. The polls were closing and the trains had been shut down and traffic in and out of Manhattan was stopped. We looked at each other; she asked if I was Okay, I said "yeah" and that I was little worried about my wife and daughter who were in lower Manhattan. We were both worried about our many friends who were near what would be called ground zero and lived in Battery Park City. She made sure I got a ride to the candidate's offices where everyone was meeting and I didn't see or hear from her again until she asked me to come into Manhattan two days later to participate in the training for the next cohort of Development School for Youth students who would be entering the program in October. She didn't make any speeches, she simply made sure everyone was okay and figured out where everyone should go next. She led with her decisions and actions and commitment to keeping the program going.

Burning Out in the South Bronx

It would be very noble to say that 9/11 caused me to re-evaluate my priorities and become a teacher. It didn't happen that way. After 9/11 the tech sector job market in New York City, which had been bad, totally dried up. Hundreds of resumes and applications later, I happened to come across an advertisement for the New York City Teaching Fellows. I knew that I liked kids and I could get a free Masters degree and go back to the tech career when the market rebounded, so I applied.

I wound up teaching elementary school in the South Bronx and I experienced heading straight for a burnout. According to my wife and daughter I was not fun to live with during those first two years. The general environment in the South Bronx was impacting on me. The neighborhoods were desolate, there was always conflict on the buses and the trains, and people spoke to each other harshly in an almost casual manner. Displaying anger was a norm and I became abusive to others and myself. The stress was literally killing me. I was turning forty and my hair was falling out and a variety of other physical problems were emerging. I knew I needed more support. Despite all of that somewhere along the way, even with all the bad things that were happening to me I had decided that teaching was worth doing.

Walls Without a University

The East Side Institute is an international training and research center for new approaches to human development and community building. When the Wall Street tech bubble popped, my income and ability to find work were compromised. The training I had received from Fulani, and the friends I had made at the All Stars Project were a source of emotional support for me. I was struggling to find work, my wife had to start working full time to support us and I had to refinance the house to reorganize the debt from my business losses. Right before the bubble burst I had been in social therapy, a type of group therapy, that featured collective activity where the emphasis was that people could get help with emotional pain while participating in the

I met Lois Holzman one evening at the offices of the All Stars Project. It was shortly after my first reading of her book, End of Knowing, which she had written with Newman. The book introduced me to my favorite Wittgensteinian phrase "the vanishing of the problem." I had been volunteering my technical skills at the All Stars Project and I had become known in the community as someone who could help with technology problems. Holzman had questions about web technology and someone had suggested that she talk to me. She was trying to decide on how to go about setting up a website for the Eastside Institute and was having trouble figuring out the process and the series of decisions that would need to be considered. I had a brief conversation with her at the end of which she said "Thank you, you've made the problem much smaller." I felt hugely complemented. Writing a book is something that impressed me and helping Lois in a way that she wrote about, helped me feel more connected to the big ideas.

social activity of the group.

I turned to the East Side Institute during my first year of teaching in the South Bronx when I realized that teaching there was having a negative impact on my relationships and my health. I started attending workshops there that involved learning to use improvisation in the classroom. I started working with Holzman and Carrie Lobman, her colleague at the Institute who was also a professor of early childhood education at Rutgers. In working with Holzman and Lobman, I learned more about Vygotsky and the performatory approach to learning that was employed in the environments that I had volunteered in. I learned why I could not recreate these environments in public school settings.

The East Side Institute for Group and Short Term Psychotherapy is an international training, education and research center for developing and promoting radically humanistic approaches in psychology, therapy, education and community building.

I discovered that there were ways that I could build my relationships to students and improvise in and around the constraints imposed by the educational system. I could perform as a different kind of teacher and I could use improvisation to help my students in many small ways. I began to see my students as groups of learners and that my job was to organize the groups and to make my commitments to the group clearer. Holzman and Lobman got me through my first three years of teaching and they designed a new program at the Institute, Developing Teachers, based on their work with teachers.

After taking all the workshops that the Institute offered more than once, I found that I needed a more challenging activity to keep pushing myself to develop my teaching practice. Holzman offered me an independent course of study at the Institute and we talked about my practice and I did some research with her support and direction. She directed me to the work of Michael Cole who she had studied with at Rockefeller University. She, like Fulani, was also a grassroots

organizer with an expertise in human development, educational studies and community services. Holzman was the director of the East Side Institute, which Newman often referred to as the "walls without the University."

Holzman related to me as a peer during our work together and I enjoyed the scholarly activity. Public school had disappointed me on so many levels that I realized that I couldn't remain in education if I could not work on the "non-trivial" problems with people who were willing to consider changing the way things were. Shortly after the independent study, I decided that I would enter graduate school and get a Ph.D. I knew that I had no interest in becoming a school administrator and I found being a classroom teacher was too isolating an experience. I decided I would need official credentials to do the things that I was interested in doing in education. Being able to introduce myself as Dr. carries social capital that I lacked now that I no longer had the trappings of a six-figure income and a corporate location at a Wall Street firm.

The Importance of Independence

My scholarly activity is integrated into my teaching practice. I continue to work with my colleagues at the East Side Institute and they continue to support me and introduce me to a broader international community of scholars and practitioners. They also continue to provide opportunities to present at conferences, collaborate on papers, and develop pedagogy. One of the things that I've learned from grassroots organizers is that you have to have independence to pursue the programs that you believe are truly meaningful and effective. Being independent does not mean acting alone, it can be about acting in solidarity with the group toward an agreed upon goal.

Practitioner-Researcher-Postcolonial-Postmodern

I experience flow when I teach, it's not a regular occurrence but it happens. I notice that it has happened when I look up and realize that I have not been managing class time and some one reminds me that I have to dismiss the class. I feel energized and I regret that I have to dismiss the class. On days when I am experiencing flow, the experience has certain qualities, I am moving around the room, students are asking big questions and we are challenging the assumptions about what we think we are doing together. Students are noisy but there is intensity in the noise, laughter, back and forth conversations that sound like negotiations. I don't know if students are experiencing flow but I would guess that some of them are. In the performatory learning environment, the sources of chronic frustration and dissatisfaction, which are barriers to achieving the flow state, are eliminated (Csikszentmihalyi, 1990, p. 7). The feelings of lack of access, knowledge, and power that are so common in school are diminished as trusting relationships develop among collaborators, goals are determined, and leadership opportunities are distributed.

Something that I continually overlook but that merits attention is that I move from classroom to classroom to teach my students, I use empty classrooms. I ran across the following in the book Culture and Imperialism by Edward Said - he is citing French sociologist Paul Virillio when he writes that, "…the fundamental transgressive act is to inhabit the normally uninhabited." Flexibility is required for transgression to take place. I have learned that instruction can happen, in Church basements, or in a community health center, a park, a hallway, office conference rooms, or a stairwell. I have observed that other teachers exhibit similar kinds of flexibility. We all transgress when we teach in the unofficial places.

In this chapter I have presented my own experience of the contradictions of identity and how I use social approaches, participating in or "building the group" on a very local level to "transcend" or to create a "vanishing" of the contradictions. To engage the issue on a macro scale, Said is helpful:

> Imperialism consolidated the mixture of cultures and identities on a global scale. But its worst and most paradoxical gift was to allow people to believe that they were only, mainly, exclusively, White, or Black, or Western, or Oriental. Yet just as human beings make their own history, they also make their cultures, traditions, sustained habitations, national languages, and cultural geographies, but there seems no reason except fear and prejudice to keep insisting on their separation and distinctiveness, as if that was all human life was about. (Said, 1994, p. 336)

In my opinion, there is no reason to insist on identities that keep us apart, and perhaps, we can create performances, continuous, socially created, fluid "identities" that can help bring us together.

There is no place for violence in the learning environment and bullying is common in schools. The bullying activity is socially produced, and I believe, can only be addressed as a group problem. There are different school level interventions that are available and it is not my intention to propose large-scale solutions. It is clear that bullying was an issue for me. Many years ago when I asked my best friend from childhood why I was such a target for teasing and bullying, he commented that I was the only normal one. In retrospect, all that means is that I was different and he and the rest of the students allowed that difference to matter. Creating solidarity among students is crucial in addressing bullying and school-wide programs try to impose this from the top down, I believe it also has to happen from the bottom up.

My autobiographical account provides a small amount of evidence that ordinary people who were leaders in urban communities and creating learning opportunities for young people, laid the groundwork that made it possible for Hillary Clinton and Barack Obama to appear on the national stage. Those leaders and their communities, at least the ones I've identified, valued collaboration, distributed leadership, personal responsibility, diversity and respect for others. My receptivity to the idea of a woman or a person of color being President of the United States was in part informed by my interactions with community leaders who had those attributes in addition to the many performances of non-White, non-male, fictional Presidents that have been portrayed in the popular media, theatrical and cinematic performances helped create change in the world.

Bringing the commitments that I have identified in this chapter into the classroom is very challenging. School is designed to reward or punish the individual and provides well-established identities for those individuals. Those identities and the structures that are in place are reinforced by those in authority and those who have something to gain by keeping things they way they are, including students who are good at school and teachers who are good at schooling. The ability to make choices has been central to many of the developmental learning situations that I have described with the exception of participation in the Church. Culturally, participation in the Catholic Church is so central to Puerto Rican Cultural identity (Duany, 2000) that choosing not to participate didn't occur to me until I was in my late teens and discovered that I could be rebellious.

School is not a place where many children would choose to be and overcoming that resistance positions the teacher as coercive. Students develop the expectation that the teacher must be willing to be coercive and to mete out consequences in order to maintain order. Reliance on the teacher for order absolves the group from taking responsibility for maintaining order even

as it provides safety and comfort. Schools are designed to encourage uniformity except where disabilities are identified which has the double impact of "othering" students with disabilities and stigmatizing giving or getting extra help. Students are not expected to provide leadership to situations and are only encouraged to provide leadership outside of the classroom in officially sanctioned student council groups that do not generally influence what goes on inside the classroom and are limited to a relative few.

Emotions are treated as problems in schools that need to be managed. Fortunately many teachers attend to the emotional environment in the classroom despite school policies (Holzman, 2009, p. 46). In the accounts I have provided there are many different emotions that motivate or impede learning. It is now apparent to me that feelings of competitiveness, aggressiveness, confidence, autonomy, control and being supported were very important to my success in learning which co-existed with anxiety, fear and insecurity. The community or lack of community in the learning situation had an impact on how I felt about the learning environment and this is still true now that I am the teacher. I find that working to build the group helps me create a new emotional environment for my students where they can all get some support from someone if they can't get it from me. In the next chapter, I introduce students who are classified as special education in middle school where all of these issues are encountered as we struggle together to build the group.

CHAPTER 3:

A Performative Approach to Building the Group

I started my career in education (my second career)[3] naively believing that the positive experiences that I'd had with inner city youth in after school programs would be available in a public school setting. That turned out not to be the case, and I turned to Lois Holzman and the faculty at the East Side Institute (ESI), where she is the director, for support and for training in coping with the frustration, anger, isolation and assorted trials and tribulations of new urban public school teachers.

One of the things that I learned at ESI was that I had to take responsibility for my teaching practice. These chapters describe that practice and part of taking responsibility for my teaching practice has been to make it public by writing about it and by allowing others to observe, comment, and participate in it. The limitations, power differentials, and generally oppressive, non-developmental features of schooling are part of our daily experience in school and are often taken for granted. Performance, improvisation and technology allow me to do something creative with my students and allow us to transform our experience of the schooling environment and also happen to make visible many things that we take for granted.

The general critique I receive from the vantage point of school administrators I have worked for is that lessons are not academic enough (i.e., more reading and writing tasks), not focused on standardized assessment of what the student knows (testing), not targeted to current level of development (Bloom's taxonomy), and not efficient enough (more time on questions and answers to assess student comprehension). Even so, my relationships with children are always characterized in a positive light "you have a nice way with the kids." On those occasions where peers and administrators have witnessed or have been presented with the multi-media work

[3] I use the parenthetical and text boxes as voice over throughout the chapter

produced by my students they ask how the achievement demonstrates a student's knowledge. The process that is undertaken to produce multi-media artifacts includes, collaborative group work, interpretation of the project requirements, struggling with the technology, struggling to organize the activity, providing leadership to emerging situations, and going back and forth about what needs to be or can be created is not easily visible in one classroom visit or in a PowerPoint presentation or even by asking about it. In this chapter I provide a description of the process and the struggles that we face in the technology classroom as we produce multi-media artifacts. I have elected to talk about the work that I have done with a 12:1 special education class because the need to build or develop the social and emotional aspects of the learning environment are most evident here.

A Technology Teacher in the 12:1 Classroom

I was hired at my middle school to teach the computer technology class for general education 6th graders (four sections) and for the 12:1 special education class. As of this writing I have been at the school for four years. All the students, with one or two exceptions who arrived in the 7th or 8th grade at the school have taken the computer technology class with me. For my part, I generally have excellent relationships with students and parents. My class is viewed by the parents as an opportunity to gain important skills, and viewed by students as fun. The curriculum is focused on developing the technical fluency of the students by providing many different project-based experiences using different technologies.

Linda, Gregory, Tina and Philip are special education students in a 12:1 class. They each have and individualized education plan (IEP) that details learning challenges and required modifications to learning tasks and assessments. The IEP is a legal document and it is also an artifact of what Hugh Mehan describes as complex cultural activities that obtain meaning

through the application of "constitutive rules" (Mehan, 1988). In practice, the IEP guarantees that the student is related to as an individual with specific needs. The various diagnosis and treatments in the IEP function to bring clarity and reinforcement to understandings of the nature of the disability in the context of schooling.

I dread working with the 12:1 class and I love working with the 12:1 class. The work is emotionally exhausting and there is a disproportionate amount of unpredictability to engage given the relatively few students in the class. I love it when we are able to accomplish things together and be happy with what we are doing. Creating a more intimate in environment to support learning is possible (not always and not easily) in the 12:1 setting. As I work to organize the group work, the individuals in the group each accept or reject my offers.

An offer is something that a performer does, a gesture, a greeting, or some other form of speech, with which another performer or the ensemble creates a scene (Lobman and Lundquist, 2007, p. 3). An offer may be scripted or what you would expect and it may be improvisational or unexpected. Human beings make improvisational offers all the time. Sometimes those offers are accepted and a scene is transformed and the performers become engaged in continuing to create some enjoyable, or productive activity. Sometimes offers are blocked or rejected (bad offers, negation) and the performers (teacher and students) have difficultly continuing to work together and the environment becomes stressful, angry and even violent. Sometimes the offers are so scripted that the performers can anticipate the exchange and the conclusion and simply go through the motions as if trapped in an endless repeating loop. I work to accept all offers, good, bad and scripted, from my students to create what we are doing together in a way that involves everyone and sometimes goes off script. I consider having to resort to excluding a child from the group as a failure of the group (with my leadership) to create the methodological tool(s) with that

was required by the situation. Sometimes we fail to create the methodological tool because we haven't developed sufficiently to create the tools that we need.

Several years ago I read the following passage which helped me understand how I was seeing or not seeing disabilities in the classroom environments that I create with my students. "…we saw a complex, socially constructed cultural scene involving many people and institutions. We concluded that learning disability for example, did not exist outside of or separate from the interactive work (joint activity) that people do…" (Holzman and Mendez, 2003, p. 40). If learning disability does not exist outside of or separate from interactive work, this means that it's there all the time. We determine the visibility of a disability, by putting it on display in school, by designing an educational task that is beyond the ability of a minority of students. For example, if we design a task that only left-handed students could complete we would determine that the task was poorly designed because the majority of students could not complete the task. However, if we design tasks that all right handed students could complete, we would treat the left handed students as special cases and modify the task for them. The "disability" of left-handedness would be a "culturally constructed object" (Mehan, 1988) that is put on display in school.

When we design tasks for the group, the issue of individual handedness disappears because someone in the group will have the required handedness and the larger group context provides opportunities for all (hopefully) to contribute to the activity in different ways. This issue of "disability" is not limited to the visibility of disability, or instructional design, how the child with a "disability" is represented via the various discourses of a school is an issue as well. The political discourse, how we talk about the children, shapes and connects what happens in the every day setting to the broader discourse about disability (Mehan, 1993). This makes it

extremely difficult to talk about children designated as disabled in any way other than the way that is connected to the "official discourse." In the sections that follow, I present some of the children I work with and I use some of the official discourse to describe them and I describe them as performers of technical activities such as e-mail and movie making. Then I describe them as members of a group.

Linda

Linda is Latina and would be easily overlooked in a classroom of 35 general education students. In her class of 12:1 special education students she is easier to see. In class she is easy to work with, follows directions and tries to pursue her task to completion. She is easily distracted by other students, and will follow the crowd if she sees that everyone else is engaged in off-task behavior. She is absent frequently, is often sullen and is capable of becoming violent with her peers when angered. When I started working with Linda and the rest of her class I taught them to use e-mail and made checking e-mail part of the class routine. I sent each student the following e-mail

> Hi Linda,
> I hope you are having a good time being at school. We are glad to have you. You can always use e-mail to communicate with your teachers. If you have any problems let us know! You are doing great work in class. I look forward to working with you.
> - Jim

A couple of weeks later, Linda walked into the room, clearly upset. I asked her if she wanted to talk and she said no. I said, it was okay and asked her to get onto e-mail to check her mail and continue with her normal routine.

> hi Jim
> I am not feeling good to day and I think I am not going to feel good to the end of the school year...

I read Linda's message that evening when I got home and I responded.

> Linda,
> I'm sorry you are not feeling well. To the end of the year sounds like a really long time to not feel well. Is there any way I can help you?
> - Jim

Linda replied during the next class we had together.

> Daer jim,
> I no you want to no what happen will me and Philip was in the science room doing hour work I was trying to help him but he got very mad for no reasion and said in a laod voice can you let me speak and I said sorry and he got mad agen and that why I was not happy from Linda

I replied later that evening.

> Linda,
> are you okay now?
> - Jim

Linda received my response in class and nodded in the affirmative when I asked the question.

I learned from the special education teachers during this e-mail interaction that Linda and Philip had a history together that started when they were in a special education class in elementary school. I noticed in class that Linda goes out of her way to offer assistance to peers and that she is very attentive to what is going on in the room. After the incident described above I observed that Linda continued to interact with Philip and offered to help him on occasion.

Linda demonstrated that e-mail could be a back channel for communicating with teachers in a personal way when a face-to-face conversation was beyond her ability at that particular moment. Linda was also an early adopter of the social networking software I introduced to the

rest of the sixth grade and she used the software to connect with students outside of the special education class.

Philip

It is very easy for teachers to label Philip as the troublemaker or as the bad kid in the class. He is the kid that will disrupt the classroom, argue with the teacher, make fun of students, and incite other students to similar behavior before he has even taken a seat in the classroom. In addition, to his "behaviors" he is morbidly obese, has difficulty walking because of his obesity, is from a single parent Latino family, doesn't read very well, and refuses to do things for himself. It is all too easy to write Philip off. I noticed Philip on the very first day of school. My first impression: "This poor little guy is huffing and puffing on the first landing on his way up four flights of stairs, how is he going to do this everyday for the next 3 years?"

I have a soft spot for tough little boys who get into a lot of trouble. When I experienced Philip's "behaviors" in my classroom I did two things. In no uncertain terms I made it clear to him that I was the man and he was the boy and that I would not tolerate disrespect. My experience with tough little boys in my previous school in the South Bronx and my own working class Latino upbringing, complete with working class Latino ideas about machismo, street creds and respect are provoked and come into play. I've learned to be very careful and deliberate in my relationship with Latino boys in particular. My experiences in these situations informed what I did next.

In Charge

I reorganized my style of running the classroom so that Philip and other students could take turns being explicitly in charge. When I teach larger classes, I organize students into groups and everyone is in charge of himself or herself as I work with groups and individuals. With my

general education students we create an environment where I can have my back turned away from the larger group to work with individuals or smaller groups. I could not do this in the 12:1 class.

What we were able to create in the 12:1 class was a dialectical leadership allowed me to be in charge (supportive) of whoever was "in charge." I reasoned that Philip and I would have nothing (or at least fewer reasons to escalate conflicts) to fight over if I was in charge of him being in charge. It's been my experience that some students know that I have no real power except to assign a grade and make a call home. Students who are accustomed to getting poor grades and calls home are more likely to challenge my authority. Philip routinely tells adults what they want to hear and then he proceeds to do whatever he wants. It would just be a matter of time before Philip got suspended and discovered that he could bear the consequence and then there would be no negotiating with him. I've been party to these interactions with other students and I was determined to work for an alternative. Being "in charge" for Philip and the other students included running the start of the class meeting, being the leader for games or other group activities, asking each member of the group what they planned to accomplish during independent project time, and selecting the order in which students would be dismissed from the meeting to retrieve laptops or materials for independent project time. In addition the leader could plan a future opportunity to lead by meeting with me to learn how to play a new game or plan a favorite activity.

What I offered Philip was the opportunity to create new choices that included teaching him to use computers, provide positive leadership in the classroom and build LEGO models. I learned that he was interested in LEGOs when he responded to an e-mail asking him to tell me about an

activity he enjoyed. When his mother came in for Parent-Teacher night we had a conversation about his interests.

Mother: Sometimes he will be very aggressive, he thinks people will give him trouble before they actually do anything.

Jim: I noticed that about him.

Mother: He wants to be in control of everything.

Jim: I noticed that about him also, I decided to put him in charge of running the class meeting, he liked that. I need him to understand that he can't be mean to the other kids and still be in charge of the meeting.

Mother: How is he mean?

Jim: He teases Gregory, he makes fun of the way he talks and he yells at Linda.

Mother: Oh, he calls Linda his girlfriend.

Jim: Linda doesn't like to be yelled at by him, she even wrote me an e-mail about it. Please talk to him.

Mother: I will talk to him.

Jim: I noticed that Philip is really good at working with LEGOs

Mother: Oh yes, he's always been very good at that.

Jim: He can make some pretty complicated projects, not everybody can do that, even with a diagram. We have the beginnings of an engineer.

Mother: Oh yes, and he likes to draw. Has he shown you his drawings?

Jim: No I didn't know that. I'll ask him to show me. I want to use his interest in LEGOs and drawing to get him to work on more projects. Maybe even some LEGO robotics. Has he ever done that before?

Mother: No, but that would be very good if you could get him to do that.

Jim: Okay then, that's what we'll try.

Gregory

Gregory is an average sized 11 year old with braces, with fair skin, dark eyes and dark hair and is of Polish heritage. He is what you would consider cute, and exhibits the behaviors

associated with much younger children. For example, on a class trip he was observed holding hands with his father, and skipping. He speaks with a slight accent, is very intelligent, often speaks in funny voices, and will utter sentences in a rapid-fire fashion. I am told he has a form of Asperger's Syndrome and is the object of teasing by other children. Gregory was the first student to respond to me in a positive and decisive way. My question was, "What would you like to do in this class?" The other students took a week or more to respond. Gregory wrote me an e-mail that said, "I want to do Claymation." I had no prior experience with Claymation so I helped Gregory do an Internet search on the subject and I asked him to find information on how to proceed. We worked together to produce his Claymation movie. When I met with his parents we discussed his progress in class.

Father: I don't know what you did, but you taught Gregory how to embarrass his mother.

Jim: What do you mean?

Father: He's gotten so good at the computer that he can do things his mother doesn't know how to do.

Jim: Oh, I see.

Mother: How is Gregory in your class?

Jim: He is absolutely wonderful. Did he show you his movie? He finished it yesterday?

Mother: No he didn't.

Jim: Ask him to show you, he has it on his flash drive. He made a Claymation movie. He decided he wanted to do that, and we figured out how by doing some research on the Internet, then I got him some clay and he made the backgrounds, then I showed him how to work the camera. He did a lot of work.

Father: What's Claymation?

Gregory was very dependent on my feedback during the initial stages of the Claymation project. He asked many questions about the materials he would need and about what his project could be about. "Can I make the claymation about a fish that turns into a man? Can there be an

evil wizard that he has to fight?" I noticed that Gregory is very detail oriented and seems to only require being shown how to do something once.

Once Gregory became comfortable with the tools of his project, clay, camera, computer, Microsoft Moviemaker, he was able to focus on his project during 40 minutes of class time over the course of several weeks. During this period he would sit by himself while pursuing his project, largely ignoring everything else that went on in the room. He was meticulous in his creation of the clay characters, the creation of the sets, taking close to a hundred still pictures and then loading them into Moviemaker and adjusting the time slices for each picture. When he completed his project he was proud of his work and was willing to display it

During the project Gregory would occasionally talk out loud in his normal speaking voice about what he was doing while he was doing it. *"Now I need to put this right here and next I have to find the pin and…* Hey Jim, I can't find the pin! Oh never mind, there it is. *Now I have put the lantern on the paper with the pin…"* I was listening to Gregory's speech while I was across the room working with another student. The room had been quiet, everyone was engaged in some activity and I noticed that Gregory was talking but not to anyone in particular. When he called my name I became more attentive and I then realized that he went back to talking to no one in particular when he found the pin and resumed his activity. This may be an example of Gregory's private speech; Vygotsky (1978) recognizes that there is a relationship between speech and action in young children and this may be an indicator that Gregory was experiencing a challenging task. Several weeks after Gregory completed the project I asked him what had been hard for him during his Claymation project. He said that setting up the backgrounds (the miniature sets for the clay characters) had been the hardest (this was when the pin incident had occurred).

I have not been privy to the contents of Gregory's IEP and it is not my intention to diagnose Gregory or draw conclusions about whether his private speech disappears as he gains mastery and whether occurrences could be used to gauge developmental milestones. The literature is clear that private speech is "helpful" (Winsler, Abar et al. 2007) to his development, and it is helpful to understand the private speech may indicate that the physical aspect of the project was what Gregory found challenging. It was interesting to "see" the evidence that supported the theory even though it wasn't the focus of my interest. These three students accomplished some new things on their own and I had other students who were also pulling on my attention who were struggling to complete tasks, none of my students were not part of a group and I could not support anyone to go much further within the 12:1 framework as 12 individuals. In the next section Tina, a student who struggles to complete academic tasks emerges as a leader and helps to build the group.

Building the Group

I met with the 12:1 special education students twice a week for one hour for the entire year. Sometimes we missed class because it fell on a holiday or it got bumped for testing or some other school wide event. Missed classes were not made up. The students traveled to another classroom to see me and I realized early on that I would need some time at the beginning of class to transition them into the room. We settled on a group meeting and a group activity that would take up the first 15-20 minutes of the period. The remaining 25 or 30 minutes of the class time would be used for project work using technology in groups and individually. During that time I would move around the room working with groups and individuals on their projects.

Throughout the school year my special education students challenged me in direct and personal ways. They effectively modified my teaching practice through their insistence on

conducting the classroom activities their way and in their willingness to break rules, occasional refusals to work, and willingness to hold me to administering to the group according to their standard of fairness. My agenda, to the extent that it was obvious to them, was routinely pushed to the side if it did not align with theirs. In handing out opportunities for students to provide leadership, I had let the genie out of the bottle and they had no interest in allowing me to monopolize being in charge of who was in charge.

A female African American student named Tina brought this home for me. She had become one of my favorite leaders and I had created opportunities for her to be class leader at the expense of everyone getting a chance to take a turn leading. Tina was an enormous help to me with "class management issues," the girls automatically took their cues from her and Philip and the other boys respected her and rarely challenged her. She was also generous in her manner and she made it very easy for me to count on her and support her leadership. Tina admitted to me that she enjoyed being a leader but that certain situations made her uncomfortable and we agreed that any time such a situation presented itself that she could just let me take care of it. On several occasions she proved herself surprisingly adept at mediating conflicts between Philip and myself and helped me to see my own limitations and contradictions in certain situations.

One day during class meeting, Philip raised the issue that I had not been fair in giving out leadership opportunities and I argued that I wasn't interested in being fair (I was feeling cranky and Philip started in on me almost immediately), I wanted the best leaders to lead so that I could move on to other goals. Other students who felt similarly cheated jumped into the argument. When it was my turn to comment I asked for suggestions (I collected myself and started to perform being reasonable). Tina suggested that we write down everyone's name on paper and randomly pick who would be the next leader. The students then proceeded to pull out paper,

pencils and found a hat and had a drawing of names and the matter was resolved. Most elementary school teachers recognize that picking names randomly is fair and an obvious tool that is used widely in elementary schools. It is clear that my students had those elementary school teachers and remembered that they could create and use a tool for producing a fair process. While a fair process didn't serve my short-term goals my students did understand that fairness was a priority in the environment. I had to admit that I had not been fair and that perhaps my goals, well intentioned as they were, did not justify being unfair.

If students carry forward the routines and the lessons that they learn in elementary school, then it stands to reason that if they get the opportunity, what they learned in our class might serve them in the future.

My students would engage in a variety of tasks together and were able to complete them with varying degrees of success. Throughout the year we worked on playing games together, they were as a group; not very good at sustaining games, like "Simon sez" or "Thumbs UP" or a variety improvisation games that their Drama teacher or I introduced them to. They were weak on listening skills. They had difficulty agreeing on and conforming to the rules of the games that they played. Games that were led by the students and involved moving around the classroom were the most problematic. These games often degenerated into arguments, and physical altercations. Sometimes they looked so bad as a group I had to intervene in these games by taking on the leadership role and continuing the game, sometimes I let them come to their own conclusion by letting them take more time than planned to end an activity on their own terms. We often talked about why the game had ceased to be fun or had not gone well. They were good at understanding what had gone wrong, the challenge was having the collective discipline at the time something was happening to stop, regroup and try something different. Despite their lack of

success at playing certain games together they were always willing to try again, and I was able to identify games that they were good at.

I introduced an element of working against time to encourage learning how to get faster at games that required taking turns and paying attention. For example, collectively counting to 10 was a real challenge. In this game a random student would call out the first number and then the second in order. If two students called out the same number simultaneously, the group had to start from the beginning. This game required listening and eye contact. Over the course of the year they did get better at this game and discovered techniques, such as waiting until everyone had a turn before calling out again. Working against their own best time, provided motivation for getting better and it also had the effect of creating pressure on everyone to do their part. One day while the students were playing a counting game, they discovered that if they said the numbers in a certain rhythm the counting was easier and faster. Gregory had the habit of talking in a funny voice that varied in pitch and timing. He spoke this way all the time and often sounded like a cartoon character. In this game, Gregory was exaggerating the timing of his cartoon character voice during his turn. His timing was throwing everyone off and the other students were getting upset. As a group, we asked him to use a voice that worked better, perhaps a normal talking voice, and he somewhat reluctantly complied, but he was just as happy as everyone else when the group established a new record time. We eventually started playing a game called pass the beat, which involved rhythm and timing. Some students were very good at it and some not so good, but it seemed to be a game that produced a high level of entrainment even if the student was participating as an observer. Tina was poor at playing the game but she enjoyed listening to the rhythms of the game and she was brilliant at facilitating the game by subtly making moves while the game was being played to keep others from escalating conflicts or providing support

with interpretation and enforcement of rules. In general the students were so focused when playing the game that they were not even distracted when Philip produced distractions that would normally result in everyone stopping the activity.

How We Feel About It

I enjoy my work and I am proud of it. We mostly have fun working on projects that the students pick out and help determine a deadline for. Incomplete projects do happen and we talk about the factors that lead to not finishing work. Many of my students are not comfortable with how it feels to work on a task that is hard for them. They feel frustrated and expect they will fail. They cannot see another route to getting the task done. I've had numerous conversations with each of my students about getting work done and a common denominator is that they would prefer not to do a task than experience the anxiety and ultimate disappointment of failure. I've learned not to place emphasis on project completion and focused on how the project was being worked on, which was another area in need of development. Gregory presented the extreme opposite of the other students. He obsessed about completing projects or continuing an activity that everyone else considered complete.

Prior students have inspired many of the projects that I offer to students when they are not able to select their own. Philip and Gregory were able to add to the curriculum by being given the opportunity to express their own interests and being responded to in a serious and material way. Tina developed as a leader and was able to create opportunities for all, including myself, to have a different voice, authority, and level of personal responsibility to the goings on in the classroom. Linda used the technology to provide a new channel for social interaction that transformed her emotional disposition in the classroom. They all learned to be more accepting of

each other and more supportive, they demonstrated that they were capable of functioning as a cohesive group through their ongoing participation in games and collaborative projects.

There are those that have suggested that the relationships that I have established with these children could be used as leverage. For example, I could use my relationship with Philip to get Philip to work harder at reading or allow me to help him more, or inspire him to become a better reader. I think such a suggestion misses my main point. All of my students in special education have demonstrated that they have developed their technical skills in measurable ways with very little direct instruction, in a collaborative environment that emphasized performing as a leader, being a good listener, being a helper, and being a responsible student. How did I measure their performances? By comparing what they had been able to do at the beginning of the year, to what they could do at the end. PowerPoint presentations that were incomplete after a whole class period in September were completed within minutes of a request in June. They had been exposed to and used Wikimedia software, e-mail, the Internet, Windows Moviemaker, Lego robotics, digital cameras, Dell Laptops and Mac Laptops and had worked hard on working as a group. This environment also was grounded in creating an atmosphere where student agency, i.e., selecting your own project, running the class meeting, determining the goal, demanding that the teacher be fair, etc., was methodologically supported by attending to the needs of the group (a new task, a different leader, a different conversation, and a new structure) instead of exclusively on the needs of the particular child. Individual needs were taken care of by the group with the support and guidance of the most experienced member of the group, the adult teacher. The group was engaged in interesting self-selected collective activity that included being aware that they needed to try to solve their own problems so that I could provide support to individuals.

While the movie making, LEGOs, e-mail and social networking technologies are not assistive technologies they did transform the desire to play, perform, and get connected to adults and other students in the school community. This class has provided some of the most rewarding experiences of my teaching career. Our use of technology provided opportunities to do the same old things in a new way and to create new things. Our use of performance and improvisation provided us with the means of creating our own tools to solve problems in pursuit of new ways of doing things and creating more developmental learning environments. In the next chapter I expand on the role of technology in the learning environment and develop more fully the use of a performative approach in a general education setting. The work of building the group is less explicit in the classroom activities (We don't play performance games). The general education students do not require the same type of explicit support even though they might benefit from it, what comes to the foreground is the role of technology in the practice of forming new relationships that have the potential of expanding the classroom discourse and student agency.

Postscript

I become very emotional when I re-read this chapter. In part it is because I am very proud of the work that we did together and because as important as the work is, it is not nearly enough and I find it frustrating that I cannot do more or expand what we are doing into the other classroom settings. The situation has become even more significant because of loss that we experienced. Tina moved away very suddenly and we were all devastated by the loss. There were no goodbyes and no opportunities to process what the loss meant.

I have had a large number of students just suddenly disappear on me with very little or no warning over the past seven years. Sometimes the child knows of the possibility of a move but never specifics. When I worked at a school in the South Bronx, kids were coming and going all year long. There is no process and support for saying goodbye and none for transitioning a child in. This is a glaring shortcoming in school policy that has emotionally devastating consequences for all parties that has a negative impact on student achievement.

As a practical matter, what needed to be done was to rebuild the group. That process was intensely difficult, more difficult than I would have expected. We had group conversations about what Tina's loss has meant. Other teachers and the guidance counselor have noticed a distinct difference in the character of this class without Tina. Grief counseling is beyond my area of expertise but this was an instance where I would say that it was needed. I was confronted with "behaviors" that were more provocative, and more aggressive than I had seen from these students. Everyone agreed that Philip was "much worse" and that Linda was "headed for trouble" some of the other students seemed disoriented.

I started all over again, the prior relationships needed to be re-organized because the context has changed so significantly, I didn't come to this conclusion easily, after several weeks of trying to proceed as if it could all still work without Tina, it had become very clear that the group required starting over again. In such a small group, one student with skills that the group needed made a huge difference. This was made most visible by her absence. I was hopeful that we could create opportunities for new and different leaders to emerge.

CHAPTER 4

Performance and Agency

During the development of this chapter I came into contact with William Sewell's work on structure and agency of what Sewell refers to as actors (Sewell, 1992) through both reading and discussions with others. The approach to teaching and learning that I identify with is based on the body of work of Fred Newman and Lois Holzman. When I read Sewell I had a strong feeling of recognition. I felt as if performance, in the sense that I use it throughout this chapter, could be read as a synonym for agency and performer as a synonym for actor. Are Sewell, and Newman and Holzman all talking about the same thing?

Newman and Holzman (1997) are calling for an end of an epistemologized ways of being in favor of a performed non-epistemological way of being that can make a new developmental way of learning possible. They assert that we are all born with the ability to perform. They frequently use the Vygotskian example of a young child at the point in here development of learning language to explain non-epistemological learning. We learn and develop in social environments and become language users and come to know things through our interactions with more capable others. The problem as they see it, is that we stop performing when knowing becomes the focus of our activity and we stop doing the learning that leads development (Vygotsky, 1978).

Sewell argues that "a capacity for agency – for desiring, for forming intentions and for acting creatively – is inherent in all humans" (Sewell, 1992, p. 19). He goes on and says that, "humans are born with only a highly generalized capacity for agency, analogous to their capacity to use language." He then explains how the general capacity becomes more specific as humans are exposed to "cultural schemas" or what we could call ways of knowing.

Sewell and Newman and Holzman are all pointing to the same historical moment in a human being's development and identifying it with different language, I will call it, our human capacity to engage the world. Sewell's actor, a knower of "cultural schemas," has what Newman and Holzman would call an "epistemologized" way of being in the world. Newman and Holzman's performer has a non-epistemological ontology. Newman and Holzman argue that our epistemological way of being in the world slows and can even stop our development, our capacity for learning and creativity. Their performer has re-initialized the human capacity for development, or to perform in the world, and has all attributes of Sewell's actor. If we agree with Sewell how could it be otherwise? I would argue that the performer is able to creatively face the world with Sewell's "generalized capacity" to learn something new or to be exposed to new "cultural schemas." The performer acquires knowledge, encounters what Sewell calls structure and makes creative use of interactions with structures and relationships with other actors and performers. The performer continually re-initializes the human capacity for development by performing as a methodological approach to being in the world even as knowing is one of those many performances.

Rather than continue this line of inquiry, which I would find worth pursuing on some future occasion. I will attend to the purpose of bringing this up in the first place. Hopefully, my brief dialogue with the works of Sewell, Newman, and Holzman has created enough agreement with respect to the *activities of the actor and performer* that reader familiar with Sewell's work and who is looking for agency, structure and the creative resolution contradictions should be able to find it in the language and activities of the performers depicted in this chapter.

Performance and Technology, Transforming Teaching and Learning

I've noticed that teachers tell stories. I became aware of the performance of story telling when I began my training to be a teacher. As I have become a more experienced teacher I have started telling my own stories and what has begun to unfold is that these stories tend to be dialogic, developing each time they are shared with a new audience. My stories change as I re-imagine them to include my current understanding of what happened. I have detected similar changes in the repeated stories of others. Mikhail Bahktin (1981) helps with understanding the changing or developing story by making distinctions between the genres of epic and novel. To put it very briefly, according to Bakhtin, the novel (his definition is broad enough to include a story) develops and epic does not. The novel or the story that changes has multiple voices, view points, and is not fixed in time. I also find it helpful when Bahktin says, "Only that which is itself developing can comprehend development as a process." (1981, p. 7) Which I understand as, a storyteller who is developing can understand storytelling as a developmental process and so a different story can emerge at each telling. This is in contrast to the storyteller who recites exactly the same story every time.

The stories that teachers tell can be used to reveal something of the teaching practice. Priorities, values, understanding, and commitments are revealed when a teacher tells an audience what happened and what was done about it. Jean Lave and Etienne Wenger (1991) refer to this as "*talking within* a practice." According to Lave and Wenger the point of the talk, is not to learn from the talk but "to learn *to* talk" (p. 109). Lave and Wenger describe telling the story (talking about) in dialectical relation to *talking within* as critical to practice. The stories inform the practice, how to talk about the practice and what to do, and this practice develops future stories.

The vignette that follows is a pretty good story. It creates good feelings. It makes the audience feel that there is hope, that students and teachers have agency (are related to as performers) and that something was learned. The danger of course is that because the story is told from my point of view, I run the risk of being patronizing, victimizing, misrepresenting and demonizing of the others who are in my static "heroic" account or what Bakhtin might refer to as the valorized epic. What is to be done?

Can there be more than one hero? Can we do away with the idea of heroes? We seem to need to create them. Who are they really? Heroes are ordinary people who do extraordinary things. Sometimes they are ordinary people who find themselves in extraordinary circumstances and so simple acts of competence, kindness or decency are seen as acts that are heroic in proportion. We want to believe that the simple acts of our lives can be heroic (meaningful). We take these stories in eagerly, because they are accessible and we recognize that "what happened" could happen to us. If we can look at the activities of the ordinary people in the stories, "my story" can become "the story of what happened."

Should we provide multiple interpretations of what happened? If so, where would we stop? Stories may carry what the storyteller and audience identify as facts and truths but generally the story is goes unchallenged on the basis of truth. The story of what happened can also be told from multiple points of view, the storyteller may or may not be able represent those points of view. Here is where the audience can help. The storyteller and the audience can create a new culture of practice, or a developing practice of method (Newman and Holzman, 1997) as we create meaning together in the storytelling. The audience can "complete" for the storyteller. This is a Vygotskian way of understanding social interaction analogous to thought being completed in speech (Vygotsky, 1978). Newman (1999) extends this notion to include the idea that the "other"

can provide "completion." His description of what is meant by "complete" or "completion" includes, writing, and dialogue. This conception provides us with the dialectical unity storyteller/audience where the audience "completes" the storytelling activity with questions, comments, gestures and more stories, and in doing so they help create what the story means for the audience and the storyteller. When the activity of storytelling is done well we are emotionally moved. Maybe that's the appeal of good storyteller/story dialectics.

In summary, I argue that activity of Newman and Holzman's performer is agentic and is visible through Sewell's lens. With help from Bakhtin we see that the story can be understood as dynamic and developing and I find agreement in Lave and Wenger when I assert that storytelling as part of the social practice of teaching. Finally, with help from Newman we can see storytelling as a dialectical unity (Storyteller/audience) in which the audience "completes" for the storyteller in meaning making activity.

Time to move on, I will present the vignette and return to reveal more about how meaning is developing and what lies ahead in the main body of the chapter. This is the "heroic tale" that has been transformed with help from members of my audience into the extraordinary thing that happened to Aaron and me.

> *Aaron was an eighth grader the year I started working at the middle school about four years ago. I became aware of him when he joined an elective that I was teaching that included 6th, 7th and 8th grade students. Aaron was 13 he had dark hair, pale skin, and an average build for a boy his age. He wore black t-shirts, jeans and had braces. He was interested in computer hacking and security. Aaron seemed very bright and motivated, he considered himself a "white hat" or good guy type of hacker. The elective was 6-weeks long and ended early in the spring semester but Aaron didn't let our ongoing conversation about computers and hacking stop there. He began to follow me in the hallways between classes and find me during lunch breaks so that we could talk.*
>
> *Aaron's story began to emerge as I began to ask the 8th grade teachers and the guidance counselor about our resident hacker. It turned out that they all viewed Aaron as an indifferent student. He failed to hand in assignments and according to them was jeopardizing his chances for getting into a good high school. His teachers expressed their frustration with him and it seemed that at least some of his problems were attributed to*

issues in the home. A couple of teachers had noted that he appeared quite taken with me and urged me to encourage him to work harder or to take the schoolwork seriously. I was shocked to find out that Aaron had these "problems." The "problems" didn't seem to get in the way of him learning about computers in the way that they did with schoolwork if what everyone said was true.

When Aaron talked with me about computers his face was lit with excitement and passion, and he was demonstrating knowledge and skills that indicated many hours of commitment. When I conveyed my view to others they pointed out that the computer activity was coming at the expense of the schoolwork. My first impulse was to not involve myself with what anyone else wanted Aaron to do. I viewed my relationship with Aaron as a new kind of performance for us and I found our conversations delightful. I was not operating from within a tightly constrained teacher identity, he was not "my student" and I was not grading him. We would laugh when I pointed out that he couldn't solve or understand particular problems because of gaping holes in his knowledge of facts or theory. He would go away and come back having studied on what I pointed out and would begin to pepper me with more questions. We were having a good time, I felt like I was giving him something he wanted and I felt energized when he gave me his questions and his enthusiasm. I was happy with our informal arrangement and I didn't want to ruin it by pushing him to do schoolwork and yet I didn't want him to fail or miss out on opportunities.

Our conversations had become broader over time and Aaron had started asking me about my personal life and my political views on a variety of subjects. Aaron also shared some of the difficulties he was having with his parents and his ambition to start making money as a computer security consultant. I decided to share my dilemma with Aaron. I told him what I knew about his academic situation and he confirmed it and shrugged, he just wasn't interested in what was being presented. He said that he really couldn't see the point of any of it. I made it clear that I was sympathetic to his position. I responded by sharing my reasons for having a career in education and how I wanted to change the way that schools did things. I started to "unpack" with him, what I saw as difficulties that were being created at school. In the same way that I had pointed out gaps in his technical knowledge I pointed out the gaps in his general understandings of math, science and social studies and then proceed to help him see the connections between his interests and the various subject areas that he had dismissed as irrelevant.

Over time Aaron pulled his academic situation together to a sufficient degree to satisfy his teachers, the guidance counselor and his parents. At graduation Aaron's parents thanked me for helping Aaron so much. Aaron got into a good high school and he occasionally visits or e-mails me. We are also friends on Facebook.

If we are to take Aaron's parents seriously (and I do), what changed for Aaron was the activity that produced help that Aaron could make use of. Our performance, our conversations, had produced an environment where it was possible for Aaron to get help. Aaron's parents

acknowledged or verified the existence of the activity of helping and the perceived causal relationship to that activity when they thanked me for helping on Aaron's graduation day.

In our zone of proximal development (ZPD) (Vygotsky, 1978) Aaron developed cognitively, he was helped to make connections between of school subjects and a subject that he was passionate about. In our zone of emotional development (ZED) (Holzman, 2009) Aaron and I created an environment where he was supported to take responsibility for his relationships to schoolwork and teachers. Holzman's understanding of the zone of emotional development is that it is the zpd of emotions. This understanding comes from her work with Newman and her observation of what happens in the practice of social therapy (Holzman and Mendez, 2003). According to Holzman, people creatively and collectively working together in social therapy create an "emotional zone" that creates a new emotionality. Our activity created a ZED that provided an environment that made tools (historical, socio-cultural, and emotive-cognitive understandings and artifacts) that Aaron could use to dialectically transform his situation.

Our performed relationship continuously created who we were to each other as our conversations unfolded and our concerns and interests changed in response to each other and the structures we came into contact with. My "improvised" teaching included bringing in to the conversation the things that I knew about technology, and the activity of philosophizing "unpacking" or creating a dialogue that was not focused on finding a solution to the "problems" that Aaron and I had in school, but on our ongoing interest (meaning making) in what we could build together (our ongoing conversation) given our context, that resulted in a Wittgensteinian "vanishing of the problem." By including my motives, feelings, and dilemmas as part of the conversation I was able to create, with Aaron's help, a context in which I could make my views (concerns, opinions, etc.) available with out being coercive or compromising the integrity (trust)

of our relationship, in other words I was able to take responsibility for our relationship (teacher/student, friends, master/apprentice) and provide some leadership (talking about what was going on) by socializing my concerns (completing my thoughts in speech) and making them available. Subsequently, Aaron took responsibility for what he needed to do and provided his own leadership to his interactions with others.

Aaron's activity was to engage in a positive relationship with an adult. He acknowledged a situation that was problematic for him and he made a decision, or series of decisions, and was able to change what was happening. The vignette exemplifies a relationship that develops dialogically as it comes in to contact with the demands and resources in relation to various cultural schemas. Upon reflection, I see that our relationship and our group included other teachers, Aaron's parents, students and other people in our lives who were influencing us, whether we were conscious of it or not. As the group (school community) began to acknowledge, comment, and enter into conversations about with each of us, cognitive resources (ideas, comments, opinions and agendas of others) were provided and our conversation changed as we took them in. Our relationship resonated positively with the group and so they supported it and provided direction (moral and ethical resources) and affirmation (emotional resources).

In our ZPD/ZED we were happy to talk about the "subject," and learning (talking/reading/doing activities) about the "subject" produced more enthusiasm, happiness and motivation. We had produced a flow experience, teaching and learning for us had become optimal (Csikszentmihalyi, 1990). As our work together developed dialogically I was able to help re-contextualize the "subject" in the world, which included school, intact with its institutional de-contextualizing approaches to learning. We had successfully "vanished" the problem of Aaron "the problem student" even as the structures that caused us to construct Aaron

as a problem and for Aaron to construct school as a problem remained intact. What we created for Aaron was an opportunity to develop his cognitive-emotional capacity to take responsibility for the demands being placed on him, even as my presence in a relationship with him created the passivity of others. They were reassured when an adult took responsibility for the "problem of Aaron."

What happened in this vignette was that something new happened at school. Learning for Aaron became a social, "tool and result" activity (Newman and Holzman, 1997) it had ceased to be an instrumental "tool for result" activity that had to meet his criteria (or an institutional criteria) in order to be considered relevant. I contrast this with learning as it is framed in schools, as something that we are taught to do in school for our own benefit and purposes as long as they are in alignment with institutional and national goals.

The Group Develops the Story

During the process of sharing early drafts of this chapter with an audience (the dissertation writing group) several of the problems that were previously unresolved for me "vanished." I had been upset that my colleagues in the vignette had been unable to help Aaron. I had doubts as to my own role in Aaron's development and I harbored an assumption that he would have graduated on his own anyway. I had selected this "heroic tale" in part, because my experience of it never squared with my ideas of what my activity was. I had an inconsistency, at least in the "way of seeing" that I was seeing it.

The group was helpful in pointing out that Aaron's activity (as an autonomous performer) led him to an adult he could connect to and my assumption, that he could make it on his own, was simply unfounded. The group also brought perspective with regard to the unknown impact that a caring adult can have on the people that he or she interacts with, especially in schools. The group

also provided expanded interpretations (provided me with more contact with the relevant literature and their interpretations through their speech) of the vignette and in doing so I recognized I was telling the story in a way that separated what we (Aaron and I) were doing from what everyone else in the story was doing. I became able to see the group that Aaron and I had been a part of even as the writing group became part of the vignette group (completed) and provided me with more to work with (meaning).

The dissertation writing group's activity produced an environment that helped develop the story and helped develop the writing of this chapter as the members of the group participated in a conversation that responded to the story. This activity helped transform the "heroic tale" (valorized epic) account into a "novelized" account and helped me see how the vignette group (the school community) was in fact supporting activity that supported Aaron's development. Our writing group activity is also an example of the collective generating the learning that leads development and the creation of a ZPD/ZED that allowed me to perform "a head taller" than my current level of development.

Sharing a story creates a new context for the transformation of emotions, the personal account evokes the emotions from the time of the account and the sharing creates emotions that have to do with anticipation of how the audience will respond to the story and the context that the storyteller is telling the story in i.e., a dissertation defense or at lunch in a classroom with colleagues. The re-telling of the story in addition to changing it dialogically and dialectically creates ZED's and development can is exhibited for example, by increasing confidence, or the ability to accept criticism or rejection over time.

Interventions and Dualisms

How do we turn interventions into a performatory, group oriented, dialectical activity? We perform! As I discussed earlier the group can be understood to be taking responsibility for what happens by allowing/supporting something to happen. The group's support in the vignette was produced in dialectical relation to my activity, which included displays of leadership. My developing interest in Aaron and his interest in me constituted what the group in the vignette and perhaps those of us (the dissertation writing group) reflectively working with the story could see as an intervention. The desire for an intervention existed in the environment when I came into contact with Aaron, that desire was a surprise when I became aware of it. While not being my original intention I took responsibility for the intervention and in doing so provided leadership to what was happening. That leadership was acknowledged and supported by Aaron, teachers, parents and the guidance counselor. The activity of that relationship happened between the cracks of the official institutional structures of the school day. It was not administratively accountable activity and yet it was "accountable" to the school community (the group). My leadership performance was focused on creating agreements the "yes, and" method of improvisation (Lobman and Lundquist, 2007). The "yes, and" helps to "vanish" the dualism embedded in the intervention. When I accepted the demand for an intervention I was saying "yes, and" to the demand. "Yes" I know that you all see a problem that needs fixing "and" I have a methodological approach that may produce a "vanishing" of that problem.

The intervention activity transforms from a "knowing" there is a problem and finding a solution activity to performing, improvising, philosophizing, "tool and result" activity that allows us to create what we are doing together and what we mean. Does this exclude other interpretations or the causal claim of Aaron's parents? No. Performatory activity doesn't make a

knowledge claim. We are making meaning together, we are producing culture, and we are participating, but we do not claim that it is the right thing to do or the best thing to do, it is what we can creatively do together.

Does it change anything?' I think that we changed some things. Aaron's family got some help with Aaron getting to high school, and a more humane and supportive learning environment existed in the middle school, and we created something that can be built on and is currently being built on. In the rest of this chapter and the next I describe my efforts to build groups using the technology tools that are available in the classroom to build new structures and new performances. I start by providing a brief and selective history of significant socio-cultural and social constructionist points of view in the use of technology in education.

Social Constructionist and Socio-cultural Views of Technology in the Classroom

Computers, software, iPods, flash drives, SMART Boards, document cameras, video projectors and the Internet. We currently move forward with the belief, but not total agreement, that information and communications technology are important to the future success of our students and have the potential to figure significantly in the much needed transformation of the culture of teaching and learning in the classroom. Earlier in this chapter I discussed a performatory approach to such a transformation. What follows are some of the dominant understandings of the types of transformations seminal figures in the use of technology in educational settings have called for.

Seymour Papert, an early pioneer and advocate of using computing resources for learning, understood the challenge that computers posed to educational values at the end of the 20th century (Papert, 1993). For example, textual literacy was and continues to be valued as the primary means of access to and expression of knowledge. He argued that the computer would

allow children to explore the world in a self-directed manner using speech, touch or gesture. Since 1993 the capacity of the computer to present the user with a multimedia, hyper-connected, interactive, social networking experience surpasses anything that Papert might have described when he posited his "Knowledge machine" (1993). Yet, it still falls well short of fulfilling his vision of an epistemic "megachange" in educational interaction.

Unfortunately, the "self-directed" students that Papert described access the Internet and must expend significant time and effort to navigate through the commercially prioritized links presented by Google Inc. and sort through the helpful, conflicting and controversial information presented by the various Wikipedia.org articles they come across. These students are often engaged in the activity of searching out information for the purpose of reporting back, as opposed to satisfying curiosity or synthesizing (creating) something new. While the tools to complete pedagogical tasks have changed, the ontology and epistemology of schooling (individual concerned with learning the facts and producing right answers) have not. Sadly, the task of doing research on the Internet is closer to wandering through the wilderness amid distractions and obstacles in search of prizes than a "self-directed" search for knowledge. In all fairness, Papert's use of Piaget's theories and use of the model of the technology as a tool to assist in the social construction of knowledge in the individual is a dominant strand in the thinking about technology in education.

James Gee (2003) asserts that video games provide a model that can be used by educators to inform the design of active learning environments so that they are providing students the opportunity to experience the world in new ways, form new affiliations, and prepare for further learning. These environments become critical learning environments when students are innovating and producing meanings that are recognizable and also novel or unpredictable. For

Gee, video games, and by extension, the multi-modal, multi-media computers and digital devices that are found in classrooms provide an opportunity for redesigning the classroom experience as an embodied and situated learning experience. While Papert points out that there are new ways to access knowing, Gee argues that we have to situate and embody the knowing, using certain design principles, given the new ways we have of accessing it (knowing). Gee's arguments are gaining traction and are influencing the direction of Web 2.0 research (highly interactive, user content driven, multimedia Internet technology) in education.

In the 1990s a cultural historical activity theory (CHAT) approach to a computer mediated learning environment was embodied and enacted in the Fifth Dimension project at Michael Cole's Laboratory for Comparative Human Cognition (LCHC) at the University of California San Diego. The design of the computer mediated activity system was situated outside of schools, Cole's team reported on a Library after school program and Boys and Girls Club program. The project team discovered that where the activity system was situated, had an impact on how participants participated. At the Boys and Girls Club, participants were noisy, which was the norm for activities in the casual atmosphere at the Club. At the Library, participants followed the norms of quiet work, and orderly conduct. The computer mediated activity system was "co-constituted with its con-text" (Cole, 1996, p. 307). Using a CHAT framework Cole drew attention to the institutional setting and the cross-cultural aspects of understanding and meaning making that are going on in the computer mediated learning environment. Common to the points of view of Papert, Gee and Cole is the recognition that introducing technology into the learning environment opens it up to contact with the world and to redesign and creating some of the conditions necessary for transformations to be possible.

A Postmodern Turn

Early in the 1990s in his book, *The Saturated Self*, Kenneth Gergen (1991) provided a useful insight on what the impact of technology might mean for education. He says, "…education should not be a matter of replacing 'poor' with 'superior' knowledge, but should be a dialogue…Teachers would invite students into modes of dialogue as participants rather than pawns, as collaborative interlocutors instead of slates to be filled." (p. 228)

What Gergen is describing is a shift in the purpose of education, from education as a tool for the acquisition of knowledge and the development of work skills, to education as a dialogue between teachers and students. Gergen describes this as a shift from romantic and modernist views and ways of using language to the postmodern turn. This shift is necessary to address the "social saturation" that has been brought about by the emergence of low and high technology in the 20th century. According to Gergen (1991), prevailing notions of the self and identity are challenged by the low and high technologies of the 20th century. These technologies have increased the volume of social relationships and the number of contacts that the individual has with the world. An interesting and not unrelated side note is that Gergen comments on the stock market and analyzes it as a "relational arena" that is subject to "radical and unsystematic fluctuations" that are brought about by the social saturation of the people who are interpreting events and exchanging interpretations in and around the system. He goes on to describe the situation that he sees, "…the economic well-being of the nation (and indeed the world) is built on an array of fragile ever-shifting meanings." Gergen (1991) goes on to describe what the solution to the wild market swings and imminent catastrophe might be, "…the local reality of the stock market must be opened up to other voices…The effects of market realities are too far-reaching to be left to the informal, impulsive, and frenetic negotiations of a small and singularly

preoccupied group of persons." (p. 244) It seems that the American people, at least those who were engaged in the happenings of that moment, would agree with Gergen's analysis. At this particular historical moment, it would be appropriate to point out that technology in the classroom is a "game changer" and the question of what to do with it needs to be addressed by opening education policy and practice "up to other voices," other knowledge, other means for accessing knowledge, and the distribution of knowledge, leadership, responsibility, and equity among the diverse members of the group or collective.

> ...one game changer. In both cases mentioned so far the game changer might be ways to think about knowledge and also how to think about social life in terms of the collective. – Kenneth Tobin

Jim's Tech Class

There is a large beige metal cart in the corner of the room near the door. The doors of the cart are partially open and laptops and AC adapter cables can be seen inside. Students can be seen sitting in the room in pairs and threesomes. Their heads lean in towards each other as they look at the LCD screen on the grey DELL laptops in front of them. One student in each group will take on the chore of typing while her partner or partners look on. The room is noisy. It is the same kind of energetic noise many teachers come to associate with environments where group learning is going on. There are no noises that stand out or are distinguishable from any other. On occasions when students discover a sound effect in the Microsoft PowerPoint application the entire room goes silent as the sound of shrill beeping fades in their ears. Smiles, looks of surprise and a collective turning toward the noise follow. Some students will walk to the source of the noise and ask the noisemaker how to make that sound. Others will look at me to check my reaction. Usually, they will find that I have moved past the moment after a quick look and resumed talking to a student that I was working with.

I finish talking to one student and look around the room, I spot a raised hand and walk over. I don't know how long the hand has been up. It might have gone up in response to my straightening up after I left the last student or it may have just been there, waiting for me. Some students will walk up to me and wait for my attention, others will tap me on the shoulder, and some will just start talking in my ear. As I navigate around chairs and over book bags in the crowed room I check to see what is on the computer screens as I pass. As I reach the student she absently looks up at me and says "Never mind, I just figured it out." I continue to look and move about the room.

"Too much text! Try using the bullet points and find more pictures."

"That slide looks good but the font is too small, click over there on that A button and increase the font."

"The color of the text needs to be darker if you want to be able to see it against that background."

A student walks up to me and asks if I know how to animate the text on a slide. I point her in the direction of some boys who have been successful in doing that and I suggest that she get their help. She goes away and returns seconds later. I keep forgetting that it's still very early in the school year. I stop the classroom.

"Ladies and gentlemen, I would like you to keep in mind that what goes on in this class is not a competition. I like it when you help each other. I count on it, and I reward you for it. If someone comes looking for your help, please give it. If you see that someone needs help please offer it. Okay, everyone go back to work." A few minutes later she draws my attention and shows me that she is very pleased with her animated text. I walk over to the boys who helped and thank them for their efforts.

I still don't know all their names but I'm starting to remember the patterns, certain boys always sit together as do certain girls. Certain kids whose names I do know are generating the most disruptive noises. Certain classes are working faster than others, some work quieter and some are collectively doing higher quality work. It's still early in the year and there is still no consensus among the 6th grade teachers as to which class is the easiest, best or worst.

It's time to get them ready to leave. I announce the 5-minute warning and ask students to save their files to USB drives. It's a new skill for 11 and 10 year-olds and several of them still haven't gotten confident or competent at it. Some have already lost files that they "thought we had saved." There's nothing like a student losing a few files to reinforce paying attention when I walk him through saving the current file.

The room is getting hectic, as students start moving around the room to return laptops to the laptop cart. I start responding to some of the more panicked students who ignored the previous warning and are only now realizing that they aren't quite sure how to save a file. Students are now packing up their things and traffic around the door is starting to gather and interfere with putting laptops away. I dismiss everyone who is ready to go and the traffic jam abates and I help the students who have been slow to save files. Pretty soon saving files and getting out of the room will be a well-established routine and I won't give them a 5-minute warning 15 minutes before the end of class. September is always frustrating. When my students leave in June they are able to save work, shutdown computers, put them away and leave the room in about 7 minutes.

The narrative above is an amalgam of what the technology class looks like for the workshop portion of 30 or 40 minutes of a class period early in September. After having worked with students in this way over the last five years in the South Bronx and in lower Manhattan I think it would be fair to say the scene is consistent with what most people would normally expect to see

in a room full of children and computers. I've had different educators view and participate in this scene and it may helpful to look at the comments of one particular observer.

"It looks the same!" Professor Carrie Lobman from the school of Education at Rutgers made that utterance as she ate lunch with me after a visit to my classroom in Manhattan. What "It looks the same!" as, is referring to is her prior visit to my computer lab in the South Bronx elementary school. On that occasion she observed me working with 1st graders and 6th graders. These students were considered academically at-risk and were attending a school that was listed as SINI (School in Need of Improvement) by New York State. I can recall that in the 6th grade class she observed there were many students who were "off-task" and resisted my attempts to get them "on task." I have observed, that off-task activities such as games, music websites, and social networking sites, seem to produce the same leaning in postures, noise levels, cooperation, and enthusiasm that students who are willingly engaged in "on task" activity generate. Lobman is a friend and mentor. She is the only person who has witnessed what the technology classroom looks like in the different settings that I have worked in.

In the South Bronx I was able to engage students who were interested in creating something using technology. The technology provided a means to find something that was meaningful to the student in that particular moment. A brief conversation with a student in the South Bronx illustrates the point.

"What kind of PowerPoint presentation would you like to do?"

"I don't know."

"Is there anything that you are interested in?"

"No."

"Is there any place that you would like to go or see?'

"Hawaii!"

"Okay, why don't we do an Internet search and find some pictures of Hawaii and then you can make your PowerPoint presentation about Hawaii."

"Okay. How do I do that?"

"I'll show you."

...

I recall that Lobman and I talked about that exchange, we were both surprised at how animated the student had become when she said "Hawaii" and that her level of enthusiasm to do something had been transformed as evidenced by her asking how to do the activity of creating a Hawaii PowerPoint. "It looks the same!" is a comment that could be used to describe the appearance of the waves on the ocean. We know that it is not "the same" but we recognize there are forces at play that produce waves that look the same every time. Can the technology and a performatory approach to teaching help transform what is going on and even as it re-produces a scene that is consistent across settings? Even though those scenes are no less co-constituted by their broader cultural and institutional "con-texts" as Cole tells us.

This "sameness" occurs across settings even though the technology has changed, my teaching has changed, and my students have changed. How does the design of schooling produce the forces that also make things "look the same" across such diverse settings as schools in the South Bronx and Manhattan? What's happening when it is both the same and different?

In her writing, Lobman refers to what my students and I are doing as improvisational performance or unscripted learning. It "is the supportive and creative learning environment where everyone can contribute what they can in order to help everyone learn" (Lobman and Lundquist, 2007, p. 4).

The “supportive and creative” performance resolves the contradiction of sameness and difference. The performed learning environment in the South Bronx produced engaging organized activity that included “off task” activity. The “off task” activity was not related to as a problem, it was the “offer” that students were making. The performance produced good feelings and trust students were not getting in trouble for being “off task.” The performance also produced the postures and gestures associated with a good collaborative working environment. Improvisational performance as a non-cognitive methodological approach provides a way for contradictions to be resolved. To the extent that Lobman and other observers have identified high levels of engagement, and positive emotions tech class seems to be a desirable learning environment no matter where it happens.

Performance of a Technology Classroom

My goal in the classroom is to get out of the way, get out from in front of the group, and get next to students to work on building relationships. I love being in front of a group of kids and talking to them, I also recognize that listening to the adult speaker is not the best modality for all students to learn in. Out of necessity, I must be in front of the classroom to organize what there is to do, but as soon as that bit of work is done I head for the sidelines to coach, direct, make demands and build my relationships to the students in my class. The first 10 – 15 minutes of class time look like a typical mini-lesson with an Essential Question (EQ) a “Do Now!” and the instructions for a whole group activity. After the mini-lesson is over, I begin to work with small groups and individuals in what is popularly known as student conferences. I rarely bring the group back together again to share what has been learned with the whole class because in my opinion that has already happened for students in their own interactions and it would simply take too long to reiterate all the different things that the different students have learned during their

classroom activities and interactions. The standard practice of the whole group share out is to re-enforce a pre-selected set of outcomes that have been identified by the teacher (or the scripted curriculum) as what there is be learned. My practice of teaching does not assume that every student needs to learn the same set of things at the same moment. Students frequently learn the same set of things in our classroom but it is a by-product of a social activity, not the point of the activity in and of itself.

My agenda in student conferences is to find out how a project is progressing and help to move things along if there are problems. I do this by initiating a conversation about how the project is going or what the project is about. This is followed by a request to "show me" and the conversation is wrapped up with a comment or two on what has been shown. Sometimes the "show me" request triggers questions in the student that have not been previously asked. Sometimes "show me" generates a series of excuses as to why the project is not further along. I typically listen to the excuses and ask the student what will change or has changed so that the excuses are no longer a barrier to future progress. I will then help the student who struggles with that question to change the scope of the project or to change the working conditions in the classroom so that the perceived barriers are removed based on what they tell me. I am usually rewarded by with an expression of relief, when students realize that I have helped them by providing more time, or solving a technical problem, or simplifying the project for them. When I change the scope or technical parameters of a project I am actually changing the things that students do not believe can possibly be changed. They frequently ask if they will lose points if they hand in a late project or change what they are doing mid-project. I always assure them that they will not lose points. I view the conversation with me (a conversation between a child and adult or a subordinate and authority) over a project that is behind schedule as one that is loaded

with opportunities for fear and anxiety on the part of the student, my improvised student conference is designed to help relieve the fear and anxiety and prompts the student into thinking about what must be done to complete the project, taking away points would undermine the work we had just done in renegotiating the terms or creating new meanings for the project.

Student conferences are frequently used to target areas that are in need of more academic support or development. I view student conferences as improvised performances with students that can be used to challenge the structures and assumptions that are taken for granted in the classroom. In these improvised conversations, I engage my students in what could be viewed as a breaching experiment (Garfinkel, 1967). The student has a set of assumptions (epistemological standpoint) that are "breached" in our "performed" conversation. I am carefully attending to creating agreement by challenging what the student believes is true (that there will be a punishment), I am not challenging the students' truth by falsifying it, I am creating an agreement with the student that causes the "truth," the causality between not completing work and a punishment, to vanish. Students are often surprised when I ask them to provide a date for when a task should be completed. The ability of a performer (student) to make an offer is the performer's ability to re-structure what is going on, I am offering students the opportunity to perform by making me offers. Students are not usually given a say (an opportunity for a new performance) when interacting with teachers. Giving a student an opportunity to participate in creating what is happening relieves the student of the anxiety of not being in control while at the same time creating a demand that the student be responsible for delivering on the agreed upon commitment. This is a qualitative improvement of the learning environment, there are expanded opportunities for agentic (performatory) activity, including the creation of new cultural schemas and structures (new ways of knowing and new ways of being).

Pop Culture in the Classroom

Media literacy is one of the content areas that we explore in technology class. It is the material I have used to organize the unending fascination adolescents have with Pop stars, music, games, videos and social networking. I encourage my students to consider their relationships to the Pop culture that they are exposed to on the Internet and the other forms of content they are exposed to such as newspapers, radio, TV, adult conversations, and of course, books. Their interest and enthusiasm for these subjects provides some of the motivation for doing projects in the early part of the school year and help produce the sentiment that "tech class is fun because you chose your own topic."

Getting Un-stuck

My experience has been that when students are given the opportunity to self-select their projects they may struggle with the scope of the project. Some students will be overly ambitious, some will not be ambitious enough and some will simply get stuck on the question of what the project will be. My student conferences related to project scope tend to fall into those three categories. The most interesting and challenging to me are the ones where the student or group of students is stuck. "Stuck," means that for reasons having nothing to do with how bright or clever they are, many students are new to the notion that they are responsible for picking a topic within a general theme and setting a goal, and they are unable to take up that responsibility. The following dialogue illustrates being stuck:

Jim: How's your project?

Evelyn: It's not going anywhere. We don't know what to do.

Sandy: We can't decide on what we want to do.

Jim: You have to make a decision.

Evelyn: We know, but we can't.

Jim: How about we try to generate some ideas.

Five minutes later…

Jim: Is any of this of interest to either of you?

Sandy: No.

Jim: Okay, I'll make a decision for you and you work with it for a few minutes

I'll go away and I'll check back later.

The students approach a few minutes later. Evelyn has a very glum look on her face.

Jim: Evelyn what's wrong? I don't like that glum look on your face.

Evelyn: We don't like the project you picked for us.

Jim: I'm working real hard here to make sure you are not walking around unhappy about your project.

Evelyn and Sandy smile

Jim: Why don't you do a project that is about the influence of media on students?

Evelyn: I don't get it.

Jim: What don't you get?

Evelyn with some passion

Evelyn: Why does everyone get so excited about all this stuff that they see?

Jim: Aha! Why don't you do a critique of the influence that the Twilight series of books is having on girls, or something like that.

Evelyn: (*With a big smile)* Okay, we could do that.

Evelyn and Sandy return to their desk to work.

In this dialogue I am actively working to get Evelyn and Sandy to perform. I am giving them opportunities to make me offers. When Evelyn says, "we know, we can't" she provides an encapsulated explanation of what is going on. The belief is that they have to "know" what they are going to do in order to choose what to do. Since they do not know, they can't choose.

Evelyn often works alone and is passionate about her opposition to various things that are popular among her peers. She is uncomfortable with computers and is very reluctant to get help before she gets to the point that her eyes are welling up with tears because of her frustration.

In the dialogue I am looking at two students with slumped postures and downcast eyes and I use humor to try to alter the emotional tone of the dialogue. My "Aha!" moment in the dialogue with Evelyn comes when I see that she is passionately expressing herself for the first time in our series of exchanges. She responds to my offer and she begins to rail against "getting excited about all that stuff that they see," she is performing, she is no longer concerned with knowing what to do or making a choice. Sandy's role in the project is unclear but she is clearly supportive of Evelyn and is the one who says "no" in the first exchange and accompanies Evelyn in the second exchange when Evelyn says, "We don't like the project you picked for us." Sandy is clearly helping Evelyn approach me. Several weeks later in a personal journal communication to me, Sandy reported, in responding to a general question about her peers that, Evelyn is benefiting from tech class, she "is getting better at using a computer." From my perspective Evelyn and Sandy are also having new experiences in taking responsibility for what they learn. In our performance of negotiating the terms of their project we were able to play with different aspects of my authority, my willingness to use it, and their reluctance or inability to commit to making their own choices.

In this vignette we can see that choice making is not a purely cognitive act. The emotional disposition of the performers influences the ability to choose. In the ZED our performances

transform frustration into humor, and humor into passion. The frustration is brought on by the notion that we have to know what we are doing before we do it. Our initial performance starts out trying to generate solutions to the problem (very cognitive) of making a choice and ends in my picking a topic for the students out of my frustration but leaving the door open by asking them to "work it for a few minutes." My picking a topic and leaving them with something tangible to work with is an improvement because now they have something to either accept or reject that isn't theirs (no cognitive or emotional investment). As we re-do the scene starting with the rejection of my topic. I respond by using humor to transform the frustrating situation into a more playful humorous scene. We transformed our emotions (smiles all around) and then I am able to recall that Evelyn is passionate in her rejection of the popular culture that her peers enjoy to the point of obsession. It is at this point that we are all able to move forward and the problem of making a choice without knowing vanishes.

Using a Course Management System

The goals for learning in technology class include demonstrating fluency with the various technologies, participation in group activities, and being able to produce and present multimedia artifacts (media literacy). I am deliberately vague about end results when I assign class projects, The emphasis is on the process of production, "How do we figure out what to create together?" as opposed to "How do we produce a product with the following specifications?" The process orientation of the work demands a high level of back and forth interactions. This way of working opens up the learning environment to a great deal of diversity with respect to interests, learning styles, communication styles, individual emotion, access to resources, leadership styles, and willingness to take risks. A single classroom working in this manner is highly rewarding and highly challenging. Creating a paper trail can slow things down and create a blizzard of paper to

organize, check and return. I work with 5 such classrooms. Online tools such as e-mail, Wikis and The Moodle course management system provides a new means and medium for tracking and managing the classroom interactions that typically generate paper. The use of online forums, journals, chat, and messaging has the effect of providing expanded student-student and teacher-student interactions in and out of the classroom. The Moodle course management system has become a place where my students and I can interact beyond the confines of curriculum and a 55-minute class period. The interactions can be public or private. Students are able to respond privately to my questions about what they think we are doing in class or how they are doing technology through brief journal entry assignments. Through this type of assignment I have discovered that the line between work and play is blurred according to certain students. I have discovered that my students are playing with the technology that has been introduced in technology class.

> … umm ive learned how to put together powerpoints and to let my imagination run with everything... yeaa umm its really fun espescially when we dont do anything but work lolsz (more like play) I GTG BYE
> *Female student posted online journal entry – September 2008*

Students are playing with language, image, the online medium and the popular culture they are immersed in. When given the opportunity, they choose as their topics of conversation whatever happens to be culturally relevant to them, Election 2008, global warming, Teletubbies, the Twilight series, and their school Halloween dance, to name a few. Some students seem to appreciate the opportunities presented by the open ended improvisational nature of the Tech class.

> I like Technology so far. I like how you let us choose our own EQ. It's what we want to know, it's not chosen for us. The Powerpoint project was fun too. We could do it about anything we wanted. I like the freedom of Tech class. It's one of my favorite subjects in school(so far).
> *Male student posted online journal entry – October 2008*

Other students enjoy the responsibility of making choices.

> I learned that to create a mini-story it takes a lot of work. I was amazed at how people's stories were so fun and they took you right in. Also, I think the first few weeks of tech class were really fun. I like to have some choice in what we do and we get that in tech. big grin
> *Female student posted online journal entry – September 2008*

The Moodle system is designed to support social constructionist approaches to the learning environment. By default it is hierarchical in its control structures and linear in its mode of presentation which is a web page that scrolls up and down, that is navigated with hyperlinks and web links to other pages that scroll up and down. The Moodle system is flexible enough to allow the teacher to be highly responsive to student led activities such as specialized forums and wiki's but it stops short of allowing students to independently create new activities or resources on their own. I consider this a major limitation of the environment. I primarily use the Moodle system to gather information about how my students are feeling about their work and interactions with me and I encourage public interactions that give students a sense of the diversity that they bring to the classroom. This new ensemble performance, the use of the Moodle for public and private interactions, constitutes a new structure in the classroom that is available to the community and provides new categories of resources, i.e. diverse student interests, indications of mood or feelings and new ways to connect.

A Public Forum for Election 2008 and the Performance of a Debate

When students are posting comments in an online environment, getting replies seems to be the goal. There is a bit of competitive play around who is posting the most and getting replied to the most. Student led topic selection ranges from silly to serious and what topics become popular

and for what reasons, seem to be, as the students say, “random.” Allowing randomness creates expanded opportunities to improvise with what the diversity of interests that student bring into the classroom. The ability to improvise is available to all and the conditions for improvisation to happen include an inclusive and emotionally safe environment where people are supported to take risks.

Election 2008 emerged as a topic in the News Forum. Many students were enthusiastically supporting the Obama campaign. There were many comments that were disparaging of the McCain campaign. Several conversation threads provided good examples of a lively online discussion, but I noticed that McCain supporters were not posting and I was certain that they did exist within the student population. I raised this issue with my students. This dialogue had become inconsistent with a commitment to an inclusive and emotionally safe environment. We agreed that we could see how the enthusiasm of the posters towards the Obama campaign and the negative comments toward the McCain campaign might work to silence the minority in the class.

We then participated in a class discussion where we generated alternate phrasing of disagreements, and agreed that a general discussion forum should be welcoming of different points of view. We also agreed that a clearly labeled, special interest discussion forum was a more appropriate place for like-minded individuals. Upon having this conversation in class, McCain supporters became more comfortable in expressing their views and the McCain posts started appearing online. The disparaging remarks diminished and the students debated the merits of their candidates using their understandings (emerging media literacy) of the what their parents and other adults were saying in front of them and what they were being exposed to in the news print, online and on television.

The posts became so lively and focused that I moved them out of the general news forum into their own Election 2008 forum were the students continued to post days and weeks after the election. Evelyn was one of those students who was emboldened by the classroom discussion and posted the following:

> **Evelyn:** **Monday November 3 at 10:59 AM**
>
> I know everyone is an Obama supporter, but I disagree with you. I am in favor of McCain for several reasons.
>
> 1. I do not agree with Obama's plan to raise taxes for people earning over $200,000. This covers plenty of people I know.
>
> 2. I'm not sure if pulling people out of iraq so quickly is a good idea. We need to go slow and steady.
>
> 3. I think that Obama is making a lot of promises that he may not be able to fulfill.
>
> 4. Every single post I have seen has said something along the lines of "Oh,I like Obama because he's awesomer." Please define awesomer.
>
> Please understand that I don't like Sarah Palin any more than the rest of you. I just prefer McCain.

Evelyn was enthusiastic in her support for her candidate and had been paying attention to the news media and the conversations of the adults in her life. She got in to a spirited online debate with William who is an equally passionate student who supports Obama and is willing to take

> **William:** **Monday November 3, 5:37 pm**
> Here we go.
>
> On point 1:
> Although it may cover plenty of people in New York City, one of the most expensive cities in the world, few people make that much in other places. Further more, it's not like all of somebody's will be taken away through taxes, that just doesn't happen. It's a small price to pay.
>
> 2:Obama does plan to pull out slowly, so it's not like he's rushing out. And anything is better than staying in Iraq for "100 years."
>
> 3:I think he will fulfill them, I wouldn't support him if I didn't trust he will. He is a very competent man. Of course, McCain has mentioned plenty of outrageous ideas, like complete spending freezes on important things.

Evelyn on point for point below is a snippet of the beginning of their debate which lasted three days. This debate did not go unobserved, other students made the following comments:

Alicia:	**Wednesday November 5 6:08**
You guys are very political. Thats good. I think that McCain could run the country well but Obama has better ideas	

Sonia:	**Wednesday November 5 6:35**
You both are debating nicely and fairly! You both seem so polite and you both have strong ideas. You are so passionate! I am shocked. ☺	

Evelyn:	**Monday November 10 10:32 am**
Thanks! Is it shocking that we're passionate or shocking that we're fair?	

The "randomness" that is encouraged in the classroom and online forum supported students to generate a topic and participate in the debate of their own accord. The students brought in the excitement of Election 2008 and it was contagious. It is clear that Evelyn and William were enjoying their debate and committed a significant amount of time and effort in and outside of class to their posts. The explicit discussion about not allowing a popular view to silence differing views transformed the emotional environment, students were supported to respectfully disagree and be creative with disagreement. That environment supported the creation of a rigorous debate between two very passionate students. Their debate was available to all of my students in five different classes. Sonia and Alicia went to the effort to register their approval of the discussion and validated the respective points of view and the passion, which was on display.

Performance Spaces and Places

The easy access to the technology and fluency with the tools in the Moodle makes a debate accessible and reusable. In addition to the creation of an artifact, "space and place," have been created by the students, and those who culturally supported the production of the technology.

Two 11 year-olds become co-participants in the creation of a cultural artifact (the online discussion) that can be commented on by other 11-year olds or a teacher in a dissertation chapter. Paul Dourish has theorized the roles of “space” and “place” and he defines place as "the ways in which our encounters with specific locales, our interpretations of their borders, and our behavioral responses draw on social and cultural foundations.” He defines space or spatiality as the "way in which we understand the structures that relate to those places that we encounter.” He suggests that it would be a mistake to simply state that the technology allows students, teachers, people to transcend the limitations of time and place. He refers to online forums and other messaging technologies as “technologies of spatiality” and believes that they “allow people to encounter and appropriate existing spaces in different ways. These new practices, then, transform existing spaces as sites of everyday action. Far from creating a space apart, technology is fundamental a part of how one encounters urban space” (Dourish, 2006, p. 304). Dourish helps us see space and place as different kinds of cultural activity. These activities whether they are online environments, virtual worlds or communicating wirelessly do not constitute a world apart. According to Dourish the technology mediated cultural activities supports the emergence of new forms of practice. Dourish also discusses power and structure with respect to the practice of spatiality and points out “the production of space is conditioned by one's access to and legitimacy within that space. Encounters with space occur within specific contexts, and the spatialities that result reflect those contexts."

These new technologies included as part of teaching practice provide expanded access, legitimacy and opportunities to explore new ways to be a teacher and new ways to be a student. The ability to create new structures goes hand in hand with reorganizing existing power relationships. How does this work in practice? We perform. The technology provides another

way to produce performance spaces that are co-constituted with the places that we inhabit such as classrooms, hallways and online forums. A performatory approach to teaching and learning does not need technology to create an emotionally appropriate, significant and responsible learning environment. What I have discovered is that technology has been helpful in disrupting "the way things are" by providing contact with the world and new highly engaging things to do. A performatory approach to practice using technology has been enormously helpful in re-organizing what we are doing given "the way things are" and the new tools and resources at our disposal. We see some examples of this in the rest of the chapter.

Chat, Resistance and the Struggle for Control

Student to student interaction is facilitated by the Moodle technology via the Chat messaging application. The use of language on the Moodle becomes more ambiguous because the affordances normally available in human interactions, a smile or some other gesture, can only crudely or inconsistently represented in the text heavy environment. Students use smiley faces, slang, to indicate mood or emotion. The chat feature provides a quick easy to use access to a mode of communication that happens in a window that can remain out of view, behind windows containing officially sanctioned work. The nature of the communication seems to be of the type that happens when adult attention is focused elsewhere.

Line 1:12:30 mark: wuzzup pplz?
Line 2:12:30 mark: stfu.
Line:312:31: Brian Jones has just entered this chat
Line4:12:31 mark: we like brokeup on the 1st day of school
Line5:12:31 steve: you cant curse
Line6:12:31 mark: u guys are so mean
Line7:12:31: audry has left this chat
Line8:12:31 charles: thats right
Line9:12:31 steve: you broke up this summer
Line10:12:31 jane: jim will look
Line11:12:31 steve: jim knows what that means

In this snippet of a Chat conversation happening in class the students are chatting about relationships and gossip. In line 2 the student uses the letters stfu, translated it would read: shut the fuck up. Two students immediately confirm the interpretation of stfu and assert the policy against profanity by replying with line 5 and line 8. In line 6 the student is referring to the dialog that precedes his entry into the system at line 1 where the students were discussing gossip that related to him which prompted his response at line 2. This is confirmed at line 9. At lines 10 and 11 students assert that I will look at the transcript of the Chat and interpret correctly "stfu" means. These communications happened while my attention is elsewhere. The students are aware of my presence in the room and anticipate Chatting as my attention moves away. The Chatting became more problematic as "off task" behavior when the students discovered the beep feature which is there to attract attention. This activity became disruptive in the classroom and led to my turning it off when I also found out that the dialogue was dominated by what I considered unkind comments.

Chat fulfills a desire that the students have. They want to talk to each other. Being able to multi-task Chat with the official activities in the classroom is part of the attractiveness of the activity. You can say the things in the presence of an adult, during a time when you are not supposed to say it. In the classroom Chat environment, students are in the same room and can see each other while they are Chatting, while they are interacting with their nearest peers, while they are maintaining the illusion of doing work, while they actually are engaged in the work. Thus, they are negotiating a public presentation of self (Goffman, 1959) on several fronts. Goffman's work is helpful in understanding that the students using Chat have formed a team (group) to maintain a performance (multi-tasking chat and looking like you are working) for the benefit of

all. When the group identifies a serious transgression it anticipates that the transgression will have implications for future access to Chat resources.

My purpose in turning on the Chat feature was to find out what students would do with it in school. The students used Chat in ways that I have seen them use Chat in settings where there is unrestricted access. They played, gossiped, teased, made rude comments and entertained themselves. I struggled to find a task that justified the use of Chat in the classroom and in the dialogues that I viewed there I felt there was simply very little for me to work with, in terms of making Chat a legitimate classroom tool such as the public forums had become. Unlike the public forums, the Chat conversations are semi-private and real time as such it is unavailable for my use with the students during class time given the way that I work in the classroom. Further more, Chat conversations are not being offered to me they are happening around me but do not include me. My review of several Chat transcripts indicates that these conversations are not being offered to the entire group (the class) in the way that the public forums were. In the Chat conversations students are resisting my efforts to create an inclusive and democratic environment with them. What is revealed is that what I was trying to create with the students was still at some level at odds with students' desire to have unsupervised access to each other. In short I had enough students who were in their own words "being lazy" and "taking advantage of" the lack of strongly coercive polices in the environment, that I decided that for the time being, Chat would be turned off. This decision was met with disappointment but when I stated my concerns and indicated that I had evidence to justify the claim, that for most of the students, Chat was detracting from getting work done, the disappointment was tempered with rueful acknowledgement. A small group of students approached me about reversing my decision and I encouraged them to try and persuade me. Perhaps they can help find a use for Chat.

My interest is in democratically organized learning environments where we (teacher and students) have to work to find ways to agree on what we are creating together in the environment. The ubiquitous access to technology in my classroom creates demands on my interests. When I introduce technologies that are not well-established parts of the culture of schooling I create new opportunities to see and experience school culture. The existence of a semi-private way to communicate in a public place (a classroom) seemed to provide expanded opportunities for exclusion and failure to take responsibility for actions. For example, the use of profanity in the classroom is generally not supported especially when a teacher is nearby and yet Chat provided an opportunity to circumvent the dominant practice of not cursing in front of teachers. From my own experience, much of the bullying and the harshness that students experience at school are outside of the perceptions of teachers, Chat was being used for that purpose as well. The students had a prior history with that technology and had developed their own cultural practices using it. These two cultural practices came into contact with each other as the technology was used and we produced an environment that was becoming emotionally unsafe. I ended Chat messaging because it was disruptive of the environment on several fronts. Chat had automated passing notes in class.

I recognize that turning off the technology drives the sources of the disruption back underground (back to passing notes). The students who approached me were willing to provide leadership to the problem and I am willing to re-introduce the technology if we can create a context for a new culture of Chat use in the classroom.

Community and Online Spaces

The online conversations and interactions generated from tech class seen as something produced by a group of around 150 students, a teacher and unknown others constitute a discourse

made partially visible by the online environments that we inhabit. Modifications of language are allowed, crude humor is allowed, and contact between people of different status is allowed. Rumor, fiction, and fact are part of the narrative that is getting created. Students are performing as knowing adults when they talk politics, give advice, opinions, convey factual knowledge, and complain. They exhibit compassion and empathy in their helping activities, even as they throw tantrums and exhibit intolerance by fighting (verbally) and making fun of each other and ridiculing attachments to the things of childhood (Teletubbies, Power Rangers, Barney, Sesame Street), as they struggle in their pre-adolescence to be more grown-up.

Students write about parties and dances, and the places they have visited or plan to visit in anticipation of the next holiday. They write of their plans as if they had absolute authority to carry them out. For the students, adults are sometimes a problem to be dealt with and strategies for successfully dealing with them are shared. "Tell your Mom…" There are conversations that praise adults, positive comments about favorite teachers, or appreciative comments acknowledging certain adults for providing things that they feel are different or unique in students' experience of school. Gender roles and romantic relationships play out in the conversations as well, as the girls struggle to understand their friendships with each other and with boys, while some boys attempt to undermine conversations about relationships even as a few boys display surprising levels of maturity and humor. The online tools, "technologies of spatiality" enjoy status that is similar to that of the hallways, stairwells, lunchroom, bathrooms, playground, and nearby streets as places that students can have somewhat unsupervised access to each other during the school day. The unsupervised "places" are created in the context of schooling and the performance "spaces" that emerge for students *to talk among themselves* become visible to adults when students use technology for that purpose. The "talk among"

students is in dialectical relation to school and schoolwork, it constitutes part of what there is to talk about." Put another way, their talk is how they bring completion to their thoughts about school. Given the volume of things that we give students to think about, the notion of completion is extremely powerful. Completion, when seen as the necessary social activity that helps us learn and develop is what helps students figure out what is going on! They have to talk about their thoughts and write about them and complete them in as many different ways as they can, that is what they are trying to do when they are talking among themselves.

Parent teacher nights provided confirmation that parents were aware of their students' online activities (something happening at school becomes visible to parents) and were paying attention to what their children were posting and how they were being responded to in the online environment. Without exception, parents were supportive of my efforts and appreciated that I was attending to issues of online etiquette, as well as preparation for using the type of online course management system that would be part of their child's college education. The broader community was providing approval and participating as audience (co-participants) to what happens at school in a new way.

Fossilized Student Performances (Identity)

William is one of the most prolific writers in the various forums and he clearly demonstrates mature writing skills. Deedee is the most prolific commentator and initiator of discussions out of the 150 or so students. English is her second language. William and Deedee have never met but are aware of each other and the relative prominence that they each have in the online environment. William describes himself as "incredibly shy" and Deedee describes her self as "always happy," social, and expressive. Deedee's online performance is not very different than her classroom performance, when I asked her where she gets the time for posting, she said that

she is quite frequently "bored" at home. When William describes himself as incredibly shy in an online forum, he is referring to his public performance experiences in Drama class where he considers himself shy, although he does enjoy the class. William's online posts and classroom performances (outside of Drama) indicate shyness is not an issue when he is expressing what he knows, by writing or answering questions. William frequently works alone and Deedee frequently involves herself in everything that is going on around her. What William and Deedee have in common is that they are both highly engaged in finding out about the children around them and establishing their own status among them. William seeks status by being smart and mature, Deedee seeks status by being prolific in her social contact both off and online. Deedee uses the technology to enhance social contact and William uses technology to enhance his status as a smart student. The purpose of technology use in tech class for both these students is to create various kinds of social capital; I would refer to it as creating a bigger performance. It is also evident that these performances produce good feelings and motivate them, but this does not constitute emotional growth. Both students are holding on tightly and enhancing well-established identities, or "fossilized" performances. The technology by itself does nothing to disrupt an established performance, what is needed for these students to continue to develop emotionally, is a new performance that will provide opportunities to develop emotionally. A new performance can be brought into being with support from a group and by making conscious efforts to change things (make something new) with others.

Assessing the Work and the Production of Diversity

Digital artifacts are being created in the technology classroom. Many of these artifacts are unique and a first time experience for all of us. How do we know if they are good? How do we judge them? How do we develop the work? When the students share their work, they seem to

respond more enthusiastically to work that is representative of a certain amount of effort and quality. The group seems to determine what high achievement is for them. Student enthusiasm (respect) for student work usually coincides with and is perhaps co-produced with my own assessments of work. I find that my support for student work is a bit broader and more generous that the support students have for each other. This seems to be possible without the use of formal rubrics.

As the teacher viewing the work, it is easy to distinguish high quality work from low quality work. After several years, and hundreds of technology presentations, I've developed a sense of the typical and the extraordinary. There is great value in having students share their work. This disseminates the current state of the group's ability to produce work. Individuals become known for their skills, teams become known for their ability to work productively together. Best practices are communicated directly during sharing time. They are also communicated during the development process as students help each other. In this way the bar for achievement is continually set higher as new media projects are used and so we can rely on the group to help determine what is good.

This has been the case with the student led discussion forums. The students have experimented with discussion topics and have attempted drive traffic to the forums. Ideas and strategies have emerged and been appropriated across the community. At times this has been interpreted as, "they stole our idea!" My response to this is "Good! That's exactly what we wanted, you are helping to spread good ideas."

> …a valuing of solidarity and collective responsibility for the learning of all. – Kenneth Tobin

A Vygotskian ZPD/ZED forms during the process of the group's production of digital artifacts (i.e., PowerPoint presentations, movies, online forums, etc) it includes the abilities of

the individual members of the group and the mediating properties of the technology itself. By observation of online conversations, students have learned what an appropriate online discourse looks like. The "how-to" was not produced as a result of direct instruction; it was produced historically and culturally. Some students had more experience (experience gained on the Internet, or in the home, or another classroom) and helped to create an environment where "how-to" already existed and the sharing was mediated by both the language being used and the communication properties of the computer, Internet, web-based software and hundreds of other technologies that constitute the environment that the online discussion is produced in. The social interactions of the students functioned to transmit and create the circumstances for other students to creatively imitate and respond to what they were experiencing. Students have feelings of pride and ownership over the dialogues that they bring into being. More feelings of solidarity are produced when students discover that other students, like, enjoy or are interested in what has been written. A curiosity about other students also develops as students who are not in the same classroom participate in online dialogues. I am occasionally asked, "Who is" and "what does he (she) look like?" In this environment the performance of the student can be evaluated on the basis of fluency, attitude, engagement and presentation.

The Presentation of a Student Forum

Three girls presented their online forum, Advice for Girls. We were all unsure as to how the

> tip # 11, how to tell a boy you like them
> by Sharon - Wednesday, 10 December 2008, 07:27 PM
>
> have you had a really big crush on a boy and didn't know how to tell them? well here are some tips to help you with that.there are a few ways to tell a boy you like them:
>
> way # 1, if you are brave enough you should tell a boy yourself. the best way to do that is to, is to get him when he is by himself. if he is always with his friends go up to him and say can i talk to you alone. when you get him alone tell him how you feel. don't make it sound like you are obssesed.
> ….

work should be presented given that none of us had ever done so before. I suggested that they give it a try and that I would help if needed. The girls set up their presentation on a SMART Board and discussed how they would present. They decided to provide a brief explanation on why they chose to create the forum and then proceeded to take turns reading selected posts from their advice forum.

The presentation was well received by their classmates. The girls felt that their forum was useful to girls and to boys because it might provide them with a view on what girls think. They also thought that they had been able to provide helpful advice and that they enjoyed doing so. The most challenging part of the running of the forum had been keeping the replies on topic and addressing issues of privacy for potential advice seekers. The girls had taken care of the issue by directing advice seeker to use e-mail directly to one of the girls who would then post the problem on the behalf of the advice seeker and maintain privacy while providing help and providing the public forum respond privately and render anonymous the more interesting material. The girls seeded the forum with hints about relationships and strategies in coping with specific problems or issues that arise in the lives of 11 year-old girls. The advice column outlines what we can assume are three common strategies that girls employ in approaching boys. In disseminating these practices the girls are validating the practices, making them available to a broader audience, and providing the broader community, boy, girls and adults, with a sense of what is normal. From my own adult male perspective, I had no idea that this is what went on with 11-year old girls.

We determine fluency by judging timeliness, and appropriateness of use. The advice columnists demonstrated this clearly with their attention to discretion and the use of e-mail technology to establish a more private mode of communication. It is clear that the girls were

engaged in the activity and that the activity produced positive feelings and attitudes amongst themselves and for the forum participants who claimed that the advice was helpful. Their resourcefulness with the technology in contending with public versus private communications indicates high levels of engagement in conjunction with the content of the forum, which was important to them and their readers. Finally the presentation itself exhibited coordination, solidarity, and an excellent command of the subject matter. Their activity also produced a new structure, new awareness on my part, new activity for the students, and new public place to share and build community.

Appropriating the Tools

How do we judge if something has been learned in technology class learned and whether or not it is useful? Students answered the question they used the online public forum to react to a letter that families received notifying them that an unidentified man had inappropriately touched some boys in the neighborhood while they were on their way home from school. They used the online forums to discuss the topic.

creepy men
by Jane - Sunday, 30 November 2008, 08:55 PM
the letter we got on that creepy guy touching kids innapropriatly totally freaked me out. even though i live across the street, its a little freaky when you think about those kind of adults

Re: creepy men
by William- Monday, 1 December 2008, 10:15 AM
It's New York. There are plenty more dangerous things than that. Besides, the police station is across the street. We have one of the best police forces in the world. Don't worry, you're as safe as you think you are.

Re: creepy men
by Richard - Monday, 1 December 2008, 10:25 AM
I don't think so. We need another way to protect ourselves. What if we are not near a police station or academy?

Re: creepy men
by William - Monday, 1 December 2008, 10:28 AM
As long as you stay smart and know what you're doing, where you are going, and how you are doing it -- you are fine. The city is dangerous if you aren't smart about things. If you do pay attention and know what you're doing, it's safe. Besides, it isn't helping anyone if you just think the city is dangerous. People don't get anywhere from being scared.
If you are in control... the city is safe.
If you are in some control... you should find somebody who can help you.
If you are lost... you should go to a safe place and find your way back to where you are safe.

Re: creepy men
by Deedee - Wednesday, 3 December 2008, 07:22 PM
totally freaky!!
but i think that cops should go undercover as like homeless people, regular people.....
i think that that would be a solution to catching this person.
don't you think?

Re: creepy men
by Tina - Thursday, 4 December 2008, 09:41 PM
If u go out 2 lunch or are just going home, and u have a friend with u or a realitve,u will be as safe as u can get because 2 brains are better than one.wink

Re: creepy men
by Deedee - Friday, 5 December 2008, 04:37 PM
that is true- but the creepy man (is that his official name now?) might do something to both you and your friend.
so yeah we are safe, but that gives us no reason to forget about him. always think of these rules if you encounter him:

The discussion thread starts outside of classroom time on a Sunday evening, students continue it the classroom on Monday morning and then is continued outside of the classroom Wednesday evening and it is concluded on Friday evening. Public discussion forums have become a "tool and result," the students have self-consciously created a conversation, their spontaneous response and improvised dialogue about the formal communication from the school (the letter home) to the parents about a threat to student safety.

The students who participated in the online conversation displayed emotions such as worry, concern, confidence, and doubt concerning their situation. A new ZED emerged and the conversation generated strategies for coping, skepticism, and calls for addressing the problem of a public danger by coordinating with peers. Also on display in the interaction, are group

members providing leadership and developing collaboratively, a context for addressing the concern (developing in the ZED), while transmitting information, knowledge, and a critical analysis of the context concern.

The participants in the group are not in the same classrooms and some have not even met face to face. In this dialogue we see that the group is forming as various students participate, awareness of membership is triggered when a student has contributed to the discussion. We cannot be certain of membership in the group because participation is not limited to contributing text but to the reading of the text as well. The initial offer in the dialogue, of a concern, was developed by the students, into a procedure for conduct in the world outside of school, a new performance! The initial offer in the dialogue did not pre-suppose that a procedure would be the ultimate product of the dialogue. The procedure becomes the "tool and result" of the conversation even as the digital artifact (discussion forum) is the "tool and result" of a conversation that happens over time, with multiple participants in multiple locales

In this chapter I have depicted the everyday life of our technology class and drawn attention to a methodological approach to creating learning environments that is grounded in the performative approach to learning theorized and practiced in social therapy by Newman and Holzman. My practice of method happens to include the technology that I creatively use with students. On display are meaningful learning and the emergence of new performances (transformations) for the students and me. We have learned together to build things that we could not build in September. New relationships to others, the digital artifacts, and student content emerge on an ongoing basis. Positive feelings and risk taking are evident as well as spontaneous timely and appropriate student led dialogues. "Yes, and" improvisation performance and the philosophizing, dialectical deconstruction and reconstruction help with moving things along and

making contradictions vanish. All of this is seen through a Vygotskian lens. A performatory approach to teaching and learning makes use of technology in the following way. It uses technology to help build the group. Technology helps the group by allowing its members to complete for each other in new and creative ways. In the next chapter another new ensemble performance emerges, I consider it particularly powerful because a performatory approach is used in the mathematics classroom of a colleague.

CHAPTER 5

Multimedia Productions of School

During a question and answer session after a class presentation of my "fantasy educational technology" a dialogue resembling the following took place:

> Jim: What if we re-organized school as a multi-media production house and the students produced the educational content? That content would be produced as digital texts, printed texts, audio and video performances. Students would contribute directly to the production process and teachers would be directors, editors and organizers of activity. Everyone's relationships would change.
>
> Devil's Advocate: When would the students actually learn the content?
>
> Jim: In the practice of producing it.
>
> Devil's Advocate: Wouldn't you still have to teach them some content using traditional methods.
>
> *Long pause*
>
> Jim: I didn't say we should replace the traditional methods. They already exist and that's what people know. I'm proposing that we allow other approaches (methodologies) to learning to exist side-by-side with traditional methods. That's what I meant by re-organizing.

Change is often interpreted as the disappearance of what already exists in exchange for the presence of the thing that is new. It rarely works out that way. Science did not eliminate religion and digital media has not replaced the book. The introduction of new paradigms or new technologies are part of the history of creating culture, we make individual and collective choices about what must be done, given what is available to us. Along the way to change, access to

different forms of power, political alliances, and control of resources may all shift unpredictably. What should teachers "teach" students to do in the midst of recognizing a historical moment when everything is changing and notions truth, the self, and knowing are being called in to question by postmodernists?

The practical problem of being a technology teacher is that the software and hardware that students are learning to use today will not be what they use in 18 months, or 36 months, or in 5 years. Is it practical or reasonable to design lesson plans to teach students which buttons to click in Microsoft Excel to change the look of a chart? I've decided that teaching students that a spreadsheet is an appropriate tool for turning a bunch of numbers into useful graphs is a good enough place to start. They can play with pushing the different buttons to see what happens while trying to figure out how to create a household budget. The performance of playing with the tool, getting practice using it, not being intimidated by it, and being around others who are using the tool, is a methodological approach to learning that is transferable and useful in creating or approaching the next unimagined technology (or learning how to learn)[4].

The performatory approach to the practice of teaching and learning and technology that is described in this chapter is grounded in the social therapeutic practice that has been developed over the last 30 years and is written about Lois Holzman and Fred Newman. Newman's social therapeutic practice, a practice that is informed by the theories of Vygotsky, Wittgenstein and Marx, is focused on creating what Holzman (2009) has described as zone of emotional development (ZED). In this ZED the social therapy group creates a performance that is "transforming the environment and that is transformative of all of those who participate" (Holzman and Mendez, 2003, p. 22) in the group.

[4] The parenthetical and text boxes are used as a voice over to the text.

On the subject of performance of in the classroom, Holzman sees the teacher as therapist meaning that the learning environment is being organized performatorily, “because it is performance that keeps us away from the paradigmatic dualism of cognition and emotion. Teacher as therapist means helping students develop as learners…” (Holzman, 2009, p. 45). In the previous chapter I asserted that technology, specifically the communications technology of the Internet, text-based messaging systems and discussion forums, provided an opportunity (a social activity) for students to “complete” their thoughts. The Vygotskian notion of “completion” expanded upon by Newman and Holzman also includes “the other” and writing as sites where individual thoughts might be socially “completed.” Walter Ong helps develop this notion further by providing the following: "Writing is an even more deeply interiorized technology than instrumental musical performance is. But to understand what it is, which means to understand it in relation to its past, to orality, the fact that it is a technology must be honestly faced" (1982, p. 83). Ong also argues that writing structures consciousness and that “human communication is never one-way” it is shaped by an anticipated response. I would agree that the technology (writing) structures consciousness or as Vygotsky would say, the “mental processes” and that human communication is dialectical (never one-way). Information and telecommunications technology provides us with the ability to produce image, sound, text and a variety of visual and audio effects in anticipation of a response. This ability, similar to the ability to produce speech, is in dialectical relationship to thought and so it also must structure “mental processes.” If, as Holzman argues, performance eliminates the dualism of emotion-cognition, then the performance of doing technology to interact with others structures the social interaction and is a result of social interactions. The doing of technology, understood as social activity, helps us eliminate the dualism inherent in the use of technology for particular results. The doing of

technology does have by-products or desirable artifacts, i.e. texts, images, sound, etc. that can be very useful, but the emphasis in this chapter is on activity, social interactions that have doing technology or creating multimedia artifacts, as part of the performance of relationships to math learning in anticipation of an audience.

Developing the Pilot

A colleague at the Manhattan middle school that I work at asked me for some help with figuring out some technology for future use in his classroom. Shaun is a 7th grade math teacher and he was interested in finding out about the technologies involved in creating audio Podcasts. I helped him identify the required technologies and offered to help him get started. He wasn't ready to do a project with students and only wanted to explore the technology.

The following school year I approached Shaun and asked him if he were interested in using relatively inexpensive digital video cameras to film students performing math videos. He was very excited about the prospect and he agreed to let me work with his 7th graders. The project was known as the Math video project. The goal was to have groups of students in each math class produce and perform videos that had math as the subject matter of the video. We imagined a number of instrumental uses of the videos, these included using the videos as teaching tools, entering the videos in student competitions, identifying mathematical misconceptions and displaying student work in different classrooms around the school as well as (with parental permission) on the Internet. One of my inspirations for the project was the work of another colleague, Eric Fuchs.

While listening to a presentation that Fuchs making on a paper that he was publishing on clinical interviews that he that had conducted with low-performing high school math students (Fuchs and Menil, 2008) it occurred to me that a clinical interview sounded like it might be some

kind of therapeutic performance. In their research Fuchs and Menil concluded that the clinical interviews might help teachers to be more responsive to student needs, which would ultimately help students to become better learners. What struck me about the presentation was that they had identified a tool for better math learning that was a particular kind of conversation or performance that helped build relationships that were "more responsive" to student needs. Fuchs and Menil indicated that the clinical interviews were part of a variety of other interventions that were directed at the cognitive needs of the students.

I saw these clinical interviews as particular performances of being mathematicians (students and clinical interviewers) that might be generating different emotions from the ones that students experienced while in more familiar math learning settings. Fuchs and Menil claimed that low-performing students achieved success in the program and so I am inferring that there must have been successful interactions and positive emotions. Low-performing students would not normally be characterized as having entered a remedial program feeling successful and therefore could be attributed with having some negative emotions at the outset. It would be reasonable to conclude that there may have been movement from negative to positive emotions and that the clinical interviews in conjunction with other pedagogical methods helped to bring about a change in student emotions. According to Fuchs and Menil the clinical interviews were designed to reveal how the students were thinking (they seemed to be looking for a map of cognitive processes) about math in order to better position the intervention of the teacher. I wondered if we could create an environment were we could make visible how students were feeling about math. Better yet, could we figure out how to get a better sense of what students' relationships to math might be? If we could make student relationships to math more public, in a way that was not associated with the shame of a bad grade, or looking stupid or foolish, what would happen?

Would there be a transformation of the emotional relationship to math? In the next section a pilot project is created that elicits an emotional transformation to math learning using technology and the idea of an anticipated audience.

A Performatory Approach to a Pilot Project

I decided the objective was to create opportunities for students to create new relationships to math learning through collaboration and a performatory approach to learning. A brief survey of Internet based math videos (TeacherTube, YouTube, Myspace, Facebook) revealed that most videos were of "chalk and talk" variety featuring educators or rap videos featuring very knowledgeable students, "explaining" some aspect of mathematics or simply stating that "math is cool." I was looking for something that put the process of someone learning something new, or articulating something regarding math that might be considered new public performance for the individual or new for the viewer. For example, during a workshop one student said the following as part of her performance, "Before math class I always think about how I'm going to cheat." I considered this a new and different student performance that revealed something about on particular approach to anticipating a performance in math class.

I wanted to see if the activity of producing a video changed how students were feeling about or relating to math. I decided that I would work with my daughter Jessie (11 years old) and my nephew Alex (12 years old) who were middle school students, to produce a math video as a pilot test. Parental involvement with math homework in my household frequently led to anger and frustration for all parties involved. Jessie had struggled most of her academic career when she has not had a good relationship with the teacher. She becomes less confident and very resistant to getting help. For Jessie, a good relationship is very nurturing and does not expose her struggles to the public. Alex is a confident math student and has a reputation in the family for being quick

with statistical facts and mental computations. I asked them both to participate in a video where Alex would help Jessie with a math problem that she was struggling with. I told them that they would be helping me out and I would be showing their video to other people. We would use the camera on the Mac iBook and then I would upload the video to Facebook (available as of March 16, 2009 http://www.facebook.com/video/video.php?v=10934977305).

They were very excited about the video and getting a chance use the technology. In the video Jessie presents the type of problem that she is struggling with, a division problem involving decimal numbers, she can not exactly articulate what her problem is but she can indicate that she is confused about how to proceed. Alex doesn't understand the nature of the confusion, but proceeds to explain how he approaches the problem and begins to walk Jessie, step-by-step through the process of solving the problem. Alex questions her throughout the process, prompting Jessie to either perform mental math, when he would perform mental math, or to work the computation out on paper at the appropriate time. Throughout the video it is clear that both children are aware of the camera as demonstrated by making adjustments to camera angle, making adjustments to their appearance and showing the written work paper work to the camera.

Jessie ran upstairs to get a math problem and came back down with here hair combed and lip gloss. Alex worked very hard on looking and sounding cool

During the video Alex actually makes a mistake in talking through the process but Jessie produces a correct answer. The mistake could have had negative consequences for the performance but they kept going. Maintaining a high degree of synchrony or keeping the improvisational performance going seemed to out weigh stopping the activity over a mistake.

As Jessie describes her problem her facial expressions vary from matter-of-fact to on the verge of laughing. Alex is also alternating between smiling, looking serious and being cool as he tutors and teases his cousin as she becomes distracted by the camera and is slow in her mental

math computations. The anger and anxiety that is usually on display when math problems are attempted at home are nowhere to be found! What we see is a relaxed and humorous session of peer tutoring. After the session Alex and Jessie indicate during my questioning that they believe that their friends would watch the videos and that the videos might help with math learning. It was also important to them that the videos be funny, or cool and that they be accessible online.

In the activity of creating the video performance a ZPD/ZED had been created in the context of a social activity that included peer tutoring, producing a video and performing for an anticipated audience. The activity not only transformed the feelings of shame and anger normally associated with doing math, but also provided an opportunity to learn with a more experienced peer. A new relationship to doing math had been formed in the home. We had established that it was possible for Jessie to really do the math problems and get help with out anger or frustration. The "performance" of doing math is not exactly the same as "really" doing math but is a related activity that seems to be free of some of the constraints of "really doing math."

For Jessie, being seen on YouTube or some Internet site by her peers was enough of a motivation to get her participation during a family visit. The presence of the technology, the anticipated audience and the novelty of helping an adult were all part of the environment that was used in the production of a performance of a peer tutoring session. Observers have also noted that it is clear that the children are very comfortable with each other. Alex and Jessie have been significant playmates growing up which may have contributed to maintaining a positive environment.

An important feature of the pilot was a willingness to participate in the activity. We all took roles that we were comfortable in, what was different was the stage that the technology provided for the performance to take place in. Using performance and technology we were able to transform "home" into a "stage" for a video production activity and that was enough to help produce different (new) relationships to the activity we were engaged in. As the director of the activity (a role that is different from teacher or father), it was important to me to respect the desire that the

children had for the fun time that they thought they ought to be having in the process of doing me a favor.

With my math video pilot uploaded to Facebook, I presented my proposal to produce math videos to my peers. The proposal to produce Math Videos in a middle school environment with my former students was well received. My partner in the project, Fuchs, was enthusiastic and I began the process of introducing him to a performatory approach to learning and development.

Collaboration

Prior to the Math Video Project, I had not had an opportunity to collaborate on an educational project. I had collaborated on technology projects many times in my prior career and I knew that Fuchs was an engineer who had similar project management experiences. What was important to me in his participation was that his expertise in math education would ground the project in math learning in a way that I could not achieve on my own. Fuchs, a math educator, brought his perspectives on math education to the project. He was looking for a way to use technology break out of the "chalk and talk" as he called it, in math education. I was confident, that math videos would be produced by my former middle school students and that the results of their efforts, would be entertaining, revealing of emotions and educational. As Fuchs and I began to work together on the project we would often talk about our children and our experiences in trying to help them with math. Within that context we had conversations about the role of emotions in math learning, particularly how I thought that the project would be helpful if that aspect of a relationship to math

I considered this a new developmental challenge. I would be taking a performatory approach to teaching, learning and technology out of my own classroom and into someone else's and I would be doing this work with someone who was new to this theoretical framework.

I was relieved to find out that Fuchs also had experienced frustration and the hostility of his teenaged daughters when he tried to help them at home with math. Fuchs polled a few math educators and found similar stories.

became socialized (public) in the process of students producing math videos. As we started to produce our formal project proposal we speculated on the possible uses of student produced videos in math learning. We thought that videos that featured peer tutoring might have reuse value as models of good tutoring practices and videos that had mistakes might reveal to teachers where they might need to help students with misconceptions. We also had conversations on how the videos were also cultural artifacts and that were being produced by students in the context of their cultural understandings and everyday experience as opposed to the textbooks and manipulatives that were presented to students as the artifacts that would bring about math learning. In our conversations there were discussions about how or whether we should guide the students to produce particular kinds of videos. I argued against that particular temptation and reiterated that our goal, to create and environment where new relationships to math could be formed, needed to be free (to the extent that was possible) of our preconceived ideas of what type of products should come out of the project. We had envisioned working with students outside of their normal class time during lunch and after school, we would be asking them for a favor in the same way I had asked my daughter and nephew. In addition to the intrinsic value of the project (technology, fun, and an audience) we were hoping that the seventh grade math teacher would offer extra credit to students interested in the project. The students would be presented with an open-ended opportunity to produce a video that other students might find useful in learning about math. As a

Further analysis of the pilot video revealed that student speech about the process they were engaged in was not necessarily representative of what they knew how to do, such speech could be said to be completive of thought. This has implications for what we consider as evidence for misconceptions.

We struggled against the pull to determine what the activity would be to produce a posture for ourselves that would be receptive and responsive to what the students were bringing to the activity.

further direction I would ask them to think about their own relationships to math, i.e. fears, struggles or enthusiasm as they decided on the math content they were interested in.

We recognized that learners exhibit a range of performances and emotions when asked to do math. Unfortunately, for many different reasons, many of those performances are some variation of exclaiming, "This is why I can't do math!" in the context of doing schoolwork. The “I can’t do math!” performance makes sense to the student, it explains their failure and allows them to cling to their “fossilized” conceptions. As long as the learning environment remains unchanged (math tests, math homework, anxiety, etc.) the performance will continue to make sense. Our goal was to change the environment so that the “I can’t do math!” performance had to live side by side with other, more productive performances.

The performatory methodological approach sees the learning environment as a stage and students as performers trying out new performances. The students are related to as an ensemble, they are working together to make the ensemble look good and to contribute to the performance they are creating together. The skills that are typically identified in collaborative learning environments, i.e. communication, critical thinking, project based work, peer mentoring, are also identifiable in the ensemble (Lobman and Lundquist, 2007). After laying out our theoretical framework we presented the proposal to Shaun, our cooperating teacher.

Building New Relationships with a Math Video Project

Shaun presented his ideas of how the math video workshops would work and he was actually more ambitious than we had anticipated. He wanted us to work with the students during his class time on Fridays and he wanted us to work with all of his math classes on that day. This was much more access to students than we had originally planned

Bringing a new program into a teacher’s classroom almost requires you to be improvisational if you want to maintain the relationship and not become oppressive.

for. We went ahead with Shaun's conception and structured the workshops to fit within the program that he outlined.

Performance Workshops

The 7th grade math students were enthusiastic about starting the project. We asked the students to organize themselves into groups and we took half of the students out of the classroom into the large space next to a stair well. During the first two weeks of the project we organized the students to play improv games for about 15 minutes. I started off by explaining that the purpose of playing the games was to get us thinking about things, math in particular, in a different way than we normally do.

I started off by introducing the "yes, and" collective story game and I explained the rules. I explained that the purpose of the game was to practice listening and cooperation skills. The idea was to keep in mind the title of the story and what was said and to add on to what came before. We played the game stopping only when the story seemed to be stuck. Getting stuck could be traced back to a student not listening to what was said before or by adding a line that had the effect of taking the story in an entirely different direction or negating all that had previously been developed. Different groups of students performed this game fairly well. Some students recognized the game from prior exposure in the sixth grade drama class.

The only group that had a great deal of difficulty getting through the game was the group we had immediately after lunch. At one point I stopped the game and reminded them that their participation was voluntary and not required. They could choose to stay in the classroom and do something else. At that point they all got quiet. One student mumbled that, "Now you made us feel bad." I said, "It's not my intention to make you feel bad. This is voluntary you don't have to do it. If you decide to do it then you have to participate the way I need you to participate. It

doesn't mean that I don't love you, we worked together all last year, but it does mean that we need to stop this if it doesn't work."

Performing Mathematical Relationships

The next game that was played was called mathematical minute. In this game someone comes up in front of the group and explains, monologues, or somehow performs their relationship to math. Some very revealing things emerge in this game. Students have difficulty talking about math. Some students have good relationships to math but are mentioning that they are confused about certain things. Some perform that they don't look forward to doing math or being in math class. Some don't see the sense in what they are being asked to do in math. There were not many volunteers in the first three classes to participate in this game. The last class of the day had many more people who were willing to volunteer. In one class I didn't get any volunteers so I performed being a parent whose offer to help his daughter with homework was rejected. The students were immediately able to connect with the scene and made many comments about similar scenes in their own homes. Students who did perform revealed that it was difficult to talk about math it raised a lot of negative emotions. I had two students who did their mathematical minutes separately and then I put them into a scene together. One was a math enthusiast and the other a math hater, their scene didn't go very far, they could not find a way to develop the scene together even though I had given them a direction to try to have a conversation about their math feelings. Their scene together helped to further illustrate that not having a practical vocabulary, for math or feelings, and cultural setting that made emotions and lack of vocabulary problematic

The improvisation workshops, particularly the mathematical minute performance, were very revealing of student ideas and feelings about experiences in math learning. Students were candid in their performances and wanted assurances that what was said was not considered, "real." Even with the disclaimer, what they said creatively in the improv caused us to stop and consider the complexity that was revealed in their "made up" performances.

made it difficult for students to have math conversations and social interactions within the practice of math learning. Their mathematical relationships could not be further developed given the speech, knowledge and structures that were available in school. This is what was made visible in the improv game.

The third improvisation game was called “Can you explain that again differently.” This game comes from Unscripted Learning (Lobman and Lundquist, 2007). Students were asked to describe a simple math problem. During the explanation one student spoke while the other student who was listening would interrupt and ask, “Can you explain that again differently?” The point of the game was not to generate a complete explanation. It was to generate a variety of partial explanations the point being that there’s more than one way to say anything. In this game students wound up demonstrating the range of approaches that they have in actually explaining how to do certain math problems. Some students displayed extensive math problem solving strategies and vocabularies. Other students revealed more limited strategies and vocabularies. In the remaining workshop time students were asked to go into their groups and brainstorm their ideas. Ideas were varied. A significant number of students seemed to be planning rap videos. Our conversations with students focused on getting them to identify concrete math problems that would be addressed in the video.

New Relationships

Shaun reported one immediate result of the workshops; the improvisation games had the effect of opening up a dialogue with students that he felt were struggling but unwilling to talk to him about it. When two students walked back into the classroom after a workshop they were excited about their performances and included him in a conversation about what they had performed and revealed some of their difficulties. Another significant benefit of this project for

Shaun was that we effectively cut his class size in half during the workshops. This provided him an opportunity to work more closely with smaller groups of students for the four weeks that we were able to be on site. The students began to produce the videos after about three workshops and started to hand them in. Our review of the videos revealed a broad range of production quality and mathematical content we were all pleased with the results. In the next section we assess the project with our Shaun.

Lessons Learned

Our math video project was able to locate a space within a half hour of an hour-long math class on Fridays for four weeks during October and November. During that half hour students were organized to engage in a new activity, create groups, and figure out how to produce videos that had some relationship to the math that they were learning in their 7^{th} grade math class. Because of constraints that we were operating under, we were unable to support the video activity in the ways we had planned. Despite the limitations of the environment that the students worked in we were able to support students to produce about 30 math videos and more than a dozen other projects at various levels of completion that were submitted for extra credit to their math teacher. The videos varied in quality and accuracy in representing correct mathematical understandings. What was clear to the math teacher and to us was that the process of creating the math videos provided new opportunities for talking about math. *Students had created new relationships with the teacher in the context* of *their relationships to math learning*, which in some cases were made public and accessible to the math teacher without the shame and anger that usually accompany such disclosures.

When we interviewed Shaun at the end of the project he offered the following:

> I think one thing that has been overwhelmingly positive, with the video projects is seeing, for me and for them, seeing them have the opportunity to express themselves. Some of my classes 34, 36 kids, they don't want to speak, but when they are given the camera they seem to climb out of their shell. And that's a great opportunity, just in general, to get kids speaking about math. But it's also I think that with the right planning, it could be a good opportunity for communication between the student and myself.
>
> But just in terms of getting them out and talking… I have one student. She almost never talks in class. But with the video group she was in she becomes the centerpiece she just sang throughout the whole thing. That was shocking to me, I never see her talk, because I never see her raise her hand or go up in front of the room. And now here's a format where she is center stage and comfortable with it. In terms of getting students to speak I think we have something here.
>
> But for me I want to think about how to scaffold throughout the year with video alternatives to writing reports. How could I do that so that when I get the video I've gotten what I want? How do I give them feedback? What would I ask them? That's the difficult part for me. I want to use the video for more than getting them out of their chair and exposing and saying hi here I am…I want to get them talking about serious concepts (Excerpt from an edited interview transcript).

Shaun values the emotional aspects of math learning that the video project has revealed and now sees students differently, and his bottom line is "to get them talking about serious concepts." How do we get there? Viewed as performance, what was very obvious to us was that students had trouble talking about math at all! Shaun's bottom line is reasonable, what does it mean to talk about serious concepts? I would argue that what we do in school is determined (perhaps over

determined) by a desire to teach children to talk about serious concepts. As we noted in the workshops and in the videos, after 6 years of schooling, students have varied vocabularies, are uncertain in their speech about mathematical concepts, that speech may not be a reliable predictor of the ability to do math, and that they vary greatly in how they feel about "talking about serious math concepts."

If we return to the videos for a moment, also on display in the math videos are humor, social engagement, and performance talent (singing, telling jokes) that are not normally made available to the math classroom learning or the math teacher. The availability of humor and performance in the math videos created an opportunity to transform the relationships in the classroom. Math class on Fridays was no longer a place to dread coming to. Math class became a fun and playful place where students "performed a head taller" and were supported to take risks. I am fairly certain that getting more students "talking about serious concepts" requires that we "get the kids speaking about math" (in new performatory ways) and creating a community that includes able and less able math practitioners engaged in learning together.

The references to humor and laughter produced by the videos remind me of Bakhtin's work on carnival. The parodies in the videos and reorganization of relationships seem salient here.

There were some pre-existing structures in the school that contributed to success despite the barriers experienced in implementation.

1) Pre-existing relationships – Nearly, all of the students had positive pre-existing relationships with me and recognized the activity as being in Tech Class again, which included some of the classroom norms that were established in the 6th grade. In this environment familiarity and a common history of producing technology-based school projects render issues such as classroom management and expectation setting as largely

moot. I was able to identify certain groupings of students as being more independent or more in need of support based on our mutual history in Tech Class.

2) Resources – Time and space were in short supply. The class was split during a half hour math period, so there were about 16 students working with us during the ½ hour while the other 16 worked with the math teacher in the classroom on another activity. The 16 students worked in a stairwell and in the hallway outside of the classroom. In some cases students supplied their own video equipment and laptops and in other cases we provided the cameras. There is a generally high level of trust in the school and students are often trusted to return equipment that they are using. The students were also accustomed to working in groups and expected to be self-reliant.
3) Direct instruction – The performance workshops were useful in bringing about a new context for math learning and introducing emotions as a topic of conversation in the learning environment. In addition, some of the video productions would have benefited from the participation of more able mathematicians in the self-selected groups. This would have resulted in more opportunities to identify mistakes and/or misconceptions during the production of the actual videos. The students displayed a great deal of enthusiasm for their projects and in many cases willingly committed themselves to working on their projects during their own lunch time and during non-mandated extended day time. Some students re-shot their videos multiple times to improve the quality and appeal of their productions.
4) Willingness to take risks – The students, while a bit hesitant to perform in front of a large group, did throw themselves in to the activity of creating music videos, math tutorials and a variety of other math performances. They displayed mathematical understandings and

in some instances, their willingness to persist until they produced a video in the face of multiple challenges. In short, the students were less concerned with getting math details right than they were with making the video worth watching and in the process displayed enthusiasm and persistence that is not often in evidence in the classroom.

5) Technology expertise – The math teacher emphasized the importance of having a technology teacher available to handle the technical challenges of implementing a math video project. He could not imagine being able to move forward on such a project given the substantial technical expertise needed to support student producing videos from multiple video sources (cell phones, video cameras, digital video records) on multiple video platforms (Mac, PC and proprietary Video camera software)

Impact

Through the lens of cultural historical activity theory (CHAT) we see that pre-existing relationships and cultural capital in the activity setting figured greatly in the motivation to propose the project and to move ahead in the face of uncertain outcomes. The success of this project (a project with many unknowns, executed in adverse circumstances) rested on our relationships (150 students, a cooperating teacher, a partner) and a methodological approach that emphasized moving ahead with performative activity (in the face of not knowing) and group work.

One of the outcomes of the project is the level of enthusiasm that the math teacher has for continuing to use video production in his classroom as a pedagogical tool going forward. Now that a baseline expectation has been set by this initial endeavor he can build on what has been done to motivate his students to continue to create more videos and get them more focused on

producing the content that he thinks will be most helpful to their development as mathematicians.

On a practical level, or the level of practice, a performatory approach to the project resulted in highly creative projects that put student creativity, risk taking, and practical knowledge on display in the math classroom along with the gaps and the misconceptions that are normally there. A performatory approach is non-cognitive, and not truth-based, and as such, there are opportunities for performers to articulate thoughts and feelings that others can connect to, without shame or being identified or diagnosed with a particular problem. These performances, that anyone can do and relate to, provide additional cultural material with which to build a community.

The videos provide opportunities for reflection with students on their performances and understandings in math. Additionally, the students are excited about the prospect of sharing their videos more broadly with students in other classes in and on the Internet where family and friends can view their projects (Shaun also identified a math video competition that he would like to submit student created videos to.)

From the point of view of my own teaching practice, I am enthusiastic about applying my experience in this project to a math video project with my own classes in the 6th grade. The productions of the 7th graders will provide a benchmark for the 6th graders and the experience will prepare the current 6th grade for a Math Video Project in 7th grade. This may transform the learning environment in math education at the school level in a similar way to how the environment was transformed when laptops were initially introduced into classrooms. With this project we demonstrated that more creative

Internet connected laptops changed the notions of what was possible for students and teachers to do in the classroom and what they could produce.

responses to building the learning environment are possible even within the current constraints of high accountability learning environments that emphasize teaching to the test.

One significant contribution of this project was the repositioning of the cooperating teacher in supporting change in the learning environment using technology. Shaun's receptivity to something new in the classroom was all that was required for us to work with the students to produce a new learning environment using a performatory approach and technology. Unlike more traditional approaches to introducing technology in the classroom, Shaun was not required to attend professional development workshops to learn new technology, participate directly in the activity, or to do more work. His openness to consider and value the student videos had an impact on his relationships to students and his motivation to do more with them, and this prompted him to reflect on his own pedagogical practices in new ways. The next chapter reflects on the various studies that have been portrayed in the previous chapters and concludes with thoughts on areas for further study.

Shaun shared with us that after a long stressful week of test prep and grading student work he would spend some time watching the student videos, many of them would make him laugh and he would feel better.

CHAPTER 6

Teaching

In this final chapter the theoretical strands that emerged in earlier chapters are brought together and considered as a whole. Reflections, implications and opportunities for further research are discussed. The overriding concern in each of the three studies has been with the creation of learning environments and the activity of producing them. The autobiographical accounts in Chapter 2 illustrated learning environments that I identified as beneficial to my own learning and development and provide the basis for my comments in the rest of this section.

I've included myself in the "group of learners" I am referring to as I view Chapter 2 through the eyes of a teacher. In that chapter I present my point of view as the adult learner remembering, but in each of those cases the teacher or the leader was relating to a group of learners of which I was a member. My teachers don't remember, some of their interactions with me, I know because I've asked. I in turn do not remember certain interactions that my current students find memorable.

What emerged is that teaching can be understood as an intensely personal commitment to well-being of others that can be understood as a dialectical unity between the individual and the community. There were a number of key features that should be noted and were consistent across the various learning environments.

The learning environments were led and organized by people who were offering new experiences to urban youth. In each case interactions between learners and teacher in the learning environment were what we would consider as being of high quality. Those high quality interactions can be characterized as generating positive emotions and promoting cohesion in the group. Positive emotions were identifiable by outward signs such as camaraderie, laughter, taking on responsibilities, sharing, cooperation, and empathy for others. The interactions produced in the context of new experiences immersed learners into relevant or new cultural situations thereby expanding collective notions of culture and the repertoire of social skills.

What was observable of the teachers included mastery of content, inclusion of the learners in meaningful and beneficial activity, public commitments to a community of practice, consistent and clear structures within the learning environment, and availability for casual interactions. In each case, at least from my personal experience, caring, trust and willingness to interact beyond instructional time was important to the learner. Flexibility and the ability to improvise were clear indicators of the value that the teachers placed on the activities that they were actively engaging in with students. Instruction was rarely if ever interrupted because of a lack of resources, it was moved or reorganized but it was not compromised. Expectations were personified by the teachers in their conduct and consistent with demands that they placed on the learners. In all instances teachers embodied all of the necessary institutional authority that was required in the learning environment.

Choice is a difficult issue in mandatory public schooling. NCLB created choice between similar products i.e., you can have any car you want as long it's on this lot. Similarly in neighborhoods and in schools choice is structured and culturally produced on a local level. Someone above is always limiting the possible choices. Classrooms, schools and communities need to be supported to create their own choices.

The All Stars Project takes students whose level of development and willingness to participate may be a problem in schools and creates environments where they perform and develop. I am not advocating that we remove the unwilling students. What I am advocating for is a willingness to create new environments, new car lots if you will.

The learning environments were available to learners who demonstrated an ability to take responsibility for their own interests. (This eliminated a whole category of problems that are faced by public schools). The outside of school learning environments were valued by the learners. This was made obvious by the fact that they perpetuated the existence of the learning environment by showing up. The cultural cohesiveness of the learning environments emerged as members recognized that they were with people whose interests and willingness to participate were synchronous with their own.

The public nature of teaching outside of public schools or in university settings (where adults have more power than children) places demands on teachers that may very well be greater than those that are placed on public school teachers who can create privacy (a less publicly demanding environment) by closing the door.

Unlike the exemplary teachers of outside of school learning environments depicted in this dissertation, public school teachers are presented with a more restrictive environment and must engage the challenge of the unwilling student in addition to all the other challenges they face. The unwilling student is one who understands that there are choices but does not perceive a suitable choice or have access to a generative way (there is no shortage of degenerative modes of participation) to participate given his or her emotional and cognitive relationships to the situation.

Central to the theoretical framework being presented here is the idea that the participation of a student can be viewed as a performance that must be responded to in a new way. A performatory approach to teaching practice focuses on organization of the learning environment that includes groups of people and available artifacts, as a place where new performances are possible for all students. A new performance carries with it the capacity to transform the environment and allow new possibilities to emerge.

We produce equity and diversity by organizing the group to be accepting of what individuals bring to the group, and including what they bring into the activity.

The new contribution in this discussion is the history of the attempt to create new environments that are consistent with exemplary experiences (these experiences were particular to me and others who were in those settings) in outside of school settings. I have attempted this by using a methodological approach based in performance, social therapeutic understandings of emotions and groups, Vygotskian understandings of activity and learning, and the creative use of technology to create culture inside of urban middle school classrooms given the restrictive nature of the public school setting.

Learning

The ethnographic data in Chapters 3, 4 and 5 illustrate distinct learning environments that feature the activities of students and digital artifacts as indications that they were making and creating choices, demonstrating fluency, developing media literacy, and experiencing positive emotions (Figure 1). Many different performances emerged and mediated the learning of technical skills. Different groupings of students evolved and student learning became a social activity that transformed what was being taught and learned. Students went beyond learning about which button to click and worked out among themselves how to coordinate efforts, identify barriers to moving forward, and work out problems. Typical technology classrooms feature a fair amount of direct instruction and student projects are modeled and for which grading rubrics are provided. In the general education technology class described in chapter 4 a focus on creating ensemble efforts produced collaboration and cooperation as peers worked together and influenced learning technical skills, appropriating artifacts, and demonstrated fluency in the context of project work and ensemble presentations. Students "peer reviewed" presentations and provided feedback for presenters and effectively provided their own performance rubrics (Figure 2).

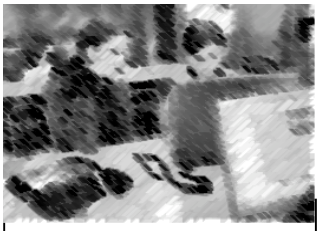

Figure 1: Students seem relaxed while working

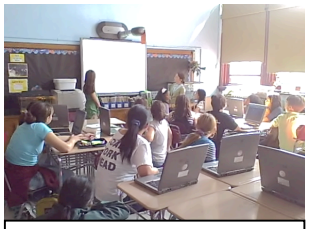

Figure 2: Students make use of a SMART Board while presenting to the class.

Figure 3: A student excitedly gestures towards the screen

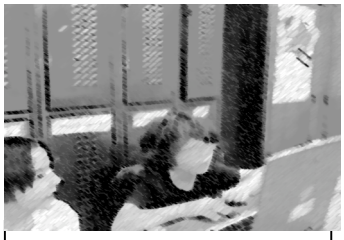

Figure 4: Students work in pairs and small groups.

Students were able to select different modalities for working in the technology class. For example, students worked side by side (Figure 3) and peers were able to direct less able partners or less able partners could acquire the required skills and knowledge to complete tasks through observation (Figure 4).

Technology in the form of online discussion forums provided students with opportunities to reflect on their relationships to each other, what they wanted or expected from their teacher and their interests in content and technology. The online discussion forums also had the effect of providing opportunities for more informal teacher-student interactions and making public within technology class, issues, concerns and interests that were normally unavailable because of the constraints of the school day. High levels of commitment and enthusiasm for student-generated projects were produced that in turn contributed to generating creativity and valuing diversity in the environment.

Figure 5: Students are enjoying playing a game together.

Technology class in a special education setting described in chapter 3 was transformed into a collaborative leadership-training program. It is normal practice to separate students in special education settings to minimize distractions. Students were intentionally grouped together during collaborative games to provide opportunities for working together (Figure 5). Student leadership opportunities were created in the classroom and produced a distributed model of leadership (Figure 6) that afforded new demands for learners and the teacher. This was associated with greater student agency, playfulness, and greater collective accountability.

Figure 6: A student leader intervenes before a conflict escalates

In the study described in chapter 5, involving the math students of a colleague, student awareness or anticipation of an audience emerged as a very powerful theme in the online environments and in the media literacy activities of the students. The desire to perform in a video recording for an online audience was transformative of emotion toward cognitive tasks in math learning. Private struggle and shame were transformed into public displays of coolness, comedy, musical lament, parody, and drama in a mathematics classroom. The math teacher reported immediate results with respect to changes in his perception of who the students were and with his own reflections on how he could change his practices to value and integrate the talents and resources of his students into mathematics instruction. As a postscript to this project, the teacher initiated another project on his own and used a performance rubric and a specific topic in mathematics for the students to produce videos. The students were able to produce the videos using their own resources (a few that didn't have resources came to me for help) and produced an assortment of videos including animations with voiceovers about the mathematical concept π (Pi).

What was remarkable about this project was that the students received performance workshops and were supported to implement video technology and the teacher didn't receive professional development training. Change was introduced into the classroom from the bottom up, the teacher was receptive to change and was passive to the video production. He came to value what the students produced in different ways. This has significant implications for teacher professional development as a model for the introduction of change and particularly technology into the classroom.

Technology

Internet discussion forums that permit users to provide their own content for public display and interaction are polyphonic and the use of forums in the learning environment introduces new tools for interaction, reflection and change in the classroom. Student literacy developed as image objects, threaded discussion, hyperlinked text, video objects, audio objects and messaging systems became tools in their production of content and their interactions with others. The

forums, messaging technologies, media production and distribution technologies provide expanded opportunities for new relationships, disrupted existing relationships and completive activity (Holzman, 2009).

Students used technology to enhance personal power in the school setting. That power could take the form of academic currency or social capital or some combination of the two. Groups of students did exclude other students as online cliques formed, but students who were typically excluded were able to be visible in the online forums and were actively encouraged to start their own topics and work to attract an audience to their interests.

Students exhibited a variety of interests and commitments in their uses of technology and while not all students were wildly enthusiastic about using technology, no one refused to use technology or displayed a lack of progress in developing fluency with the tools. Students routinely used technology to create new options for themselves as they realized that assignments could be handed in via e-mail later in the day and afforded themselves additional time to complete assignments. They also used the technology to integrate their own interests into class projects i.e., can I do a PowerPoint about the history of rock music? They communicated with classmates electronically during class time and outside of class to coordinate project work and to coordinate their own friendships and social agendas.

> I've always been proud of the fact that I don't turn kids off to tech class. It does happen in other places and student will complain about how their previous tech teacher made them follow along and had everyone do the same thing.

Another significant theme that emerges in my observations of student uses of technology is the willingness to take risks to use technology at school and at home towards achieving their own ends which seemed to be other than to complete academic assignments. They seemed to be most desirous of being able to communicate. Why was this activity so important?

It finally occurred to me that middle school students are going through many different transitions, it is an emotional time, they are bombarded with information that they need to process and understand in school, and there are many new and different relationships that they are interacting within. I realized that they needed to talk about these things. Students needed to make all these experiences social so that they could make sense of it all, the learning was leading development and social interaction was necessary. Communications technology provided the means for students to engage in social activity when circumstances restricted face-to-face interactions. Text messaging and YouTube videos can be seen as completive activities that anticipate a response. These studies revealed that middle school students are using the Internet and computer technology to help with their own social and emotional development and they will attempt to communicate with others even if they are restricted in their access to communications technology.

Talking about Technology in Schools

What follows is a bit of a dialogue with comments that I have heard from teachers while talking about using technology in the classroom. Various educators uttered the comments or questions in the grey boxes in my presence but not necessarily in conversation with me.

"…an extension of the classroom."

I've come to see online environments as part of a dialectical unity between learners and the resources they are using to go about learning. In each of the studies that have been presented here the technology is what makes certain activities possible while it transformed the nature of more familiar activities such as writing or collaborating. I now see the technology as providing expanded opportunities for learning and relationship building in the classroom.

"How do I get what I want?

There is a strong pull towards using the technology in a way that will predetermine the outcomes. Designing the learning task in open-ended ways helps to counterbalance this pull. There is something that is very outcome oriented to the question and it is an important question because underneath the surface of "I want" is a reaction to the need to produce something that counts as learning to administrators and testing regimes that evaluate outcomes. "What counts as learning?" is very constrained in the current environment, but technology use can create new alternatives to "what counts as learning" that are not being immediately dismissed. In part I think this is because we still haven't figured out how to get significant and consistent achievement gains using technology and because we have a cultural awareness that literacy in technology and media production are basic competencies for future workers and an engaged civic life and therefore we can not abandon it for a "back to basics" movement in the classroom.

"It just won't fit in."

This is a very typical response to many professional development initiatives that require teachers to add to what they already do in the classroom. Whether the "it" is a performance game or a new technology the initial reaction seems to be related to a teacher having to do more work within a fixed timeframe. This is a perspective is consistent with teachers who are isolated in their classrooms and solely responsible for what happens in them. The notion of a learning environment, as I have developed it, is not limited to the physical space provided by a classroom or the resources in it, nor does it need to limit responsibility for what goes on to a single teacher. It is possible to read these studies as what happened with one technology teacher doing three different projects, but that would ignore that the projects used resources and relationships were already in the school in different ways and pursued with emphasis on creating distributed

leadership and responsibility even as others responded passively or actively (creating groups). What is changing in the studies is the ontology of the teachers and students, nothing is being added or removed, we are reorganizing.

"What they write represents what they understand."

Literacy emerged as an issue in a new way in the technology classroom. The concept of performing for an audience is a familiar literacy concept when referring to "writing for an audience." Is the student performance timely, relevant, and appropriate? This is a question of fluency and what was revealed in the Math video project, the performance games, and the multimedia online discussion forums is that what students write or perform is not necessarily "representative" of what they understand. When students performed or worked with media other than writing, different meanings and understandings emerged. Multimodal learning environments provide more complex ways of assessing what students understand and in turn make the teacher's approach to pedagogy and assessment more complex.

"I'm just walking around and monitoring."

In a learning environment that has online content and regular access to wireless laptops in which the students are engaged in independent learning what is the role of the teacher? It is easy to fall into the mode of walking around, monitoring for "on task" behavior and answering questions as the expert. Online technology accommodates diverse abilities, students who are quick can rush ahead to the next task while students who need more time can have it either in class or at some other time or location with computer and internet access like an after-school program, the library or home. A more dynamic environment where the interactions include more

than simple questions and answers is possible if the teacher is no longer merely a transmitter of information. The "expertise" of the teacher can be provided in the context of a community of relationships or a zone of proximal development that provides what members of the community need. We need to work on developing our relationships to the group and individuals and what it means to be one of the experienced practitioners in the room.

"I need to know before I do this with a kid."

This posture is a barrier to introducing new structures, artifacts and ontologies into the classroom. It is a syllogism that does not hold up in everyday life. Parents don't know how to do most of the things they need to do with their kids before they do them. Even when the experience of the first child is available the second child presents new challenges. The practical challenge for implementing new methodologies and technologies in the classroom is providing training for students who "already know" so that they can work with teachers who "don't have to know."

"The students don't like the online environment they say, 'you are going to make us do lots of work.'"

Internet course management systems like Blackboard and Moodle can easily be used to create more work for students. The challenge is to make the additional time spent in a course management system beneficial to the student. The technology has to solve a problem for the student either by providing access to needed resources or providing efficiency. I believe that these technologies also need to be designed in a way that makes the aesthetics of the interface customizable and the function of the software available for other student uses. Social networking sites are good at this and are evolving. Course management sites are not currently designed for

easy integration and are limited by policy concerns about the liabilities that are inherent with social interfaces that are outside of the hosting institution.

Performance as a Methodological Approach

A performatory approach to teaching and learning is a methodological approach that can support us to transform our ways of being in the classroom. Technology use can be viewed as social activity that is necessary and relevant to the learning and development of students in their everyday lives. There is evidence of a clear benefit, creating positive emotions in teachers and students and cognitive development that accompanies increased fluency in technology use and media literacy, which contributes to the overall cultural literacy of the school community. There are implications. Whether we are talking about performance or other methodological approaches that bear family resemblances within the framework of cultural historical activity theory, new ontologies for teachers and students need to be supported.

The East Side Institute provided the training and support in performance and social therapeutic approaches and the Graduate Center provided the tools necessary for teacher researchers I came to the table with a background in technology.

A performatory approach creates a more complex cultural environment of the classroom. The willingness to accept offers and see students as performers rather than people with fixed identities, behaviors and/or disabilities, opens up creative possibilities for further engagement. The highly scripted interactions that end in negative feelings and lost opportunities to build learning environments are disrupted by improvisation and a commitment to a way of being in the group that values inclusiveness, democracy and fairness. The bureaucratized discourse of schools is disrupted when "teaching to" students is viewed as "performing with." Power, leadership and authority become distributed structures that support the capacity of the group to create and take responsibility for its own learning. The contradictions that are glossed over in the daily routine of schooling become much harder to ignore when

student performances and commitments to building community are valued as activity and not just the right things to say.

The view of technology use presented in this dissertation also brings more complexity to the activity of learning and using technology. The totality of the environment is transformed when students and teachers have contact with the diversity and the contradictions raised by having the ability to communicate and interact with others using the Internet and digital technologies to complete school tasks more efficiently and to create entirely new learning activities. The expanded capacity to communicate also introduces higher demands in managing the many-to-many relationships that are possible when hundreds of people within a community are communicating in a public forum.

Satisfaction and frustration can be produced for students and teachers when they use technology in the classroom, sometimes within the same minute. Students and teachers can exhibit a wide range of emotional responses to how technologies are used to restrict or manage activity, and what the technology can do to further their public and private agendas. Issues such as online bullying become more apparent but equally visible are the kindness, generosity and playfulness that are also happening online if an open ended public forum is made available.

Axiology

In an earlier chapter I referred to how I had been naïve to think that I could simply walk into a school and reproduce the positive experiences I had had outside of schools before I first started teaching. I could perform, use technology, and I cared. I was also alone in the classroom and struggling.

It is possible to create learning environments that value benefiting the community at the expense of others or benefiting the few at the expense of the many. Some examples include gangs, corporations, and racially segregated communities.

What is different today is that I have membership in different

communities of practice that are interested in engaging educational institutions in creating change and I actively participate in creating those communities. We have to be *willing to create with others continuously*, that's how we make culture, that's how we learn. I believe that we have an obligation to try to create the best learning environment that we can. The learning environment should benefit the community and minimize causing harm to others. Aligning teaching activities with my own self-interest seems to have provided me with motivation to work harder and be more open to others who were supportive about what I was trying to accomplish.

Learning to respectfully question the structures within the learning environment and in the broader community has been helpful in creating the dialogue of this dissertation. I disagree with much of what happens in education and creating agreement on what constitutes the best learning environment possible and how to take small steps to achieve it seems to provide the best route forward. This dissertation provides an account of planned and improvised approaches to creating learning environments that were consciously organized in ways that engaged students in taking risks, being reflective, pursing interests, assuming responsibilities and valuing participation with others, as a way of making new culture possible in the classroom and creating teaching and learning activities that were dynamic, accountable, responsive and relevant to the community.

Taking responsibility for the creation of new culture means also being mindful of the culture that is being produced and considering the audience (the community) and the impact that the digital artifacts that are being produced have. Parents are both enthusiastic supporters of their children having broad experience with technology as a part of their schooling and they are also very concerned about the exposure that the Internet and mass media provides children to adult themes and consumerism. In chapter 5 the Math Video project provides the skills and the motivation to produce content that is educationally relevant, it also raises the "Pandora's box"

concern about easy access to video production and Internet distribution. I believe a more active presence in the online activities of children is a necessary next step for educators, schools, and parents and the account I have provided is a very small step in that direction.

Organizing institutional support while implementing change at the grassroots level seems to be at the heart of what was accomplished here. Whether there are grassroots pathways to institutional support in schools is an open question. The teachers and education leaders that I referenced in chapter 2 had institutional support, autonomy and the responsibility for organizing sustainable learning environments that were provided outside of school. Institutional support from outside of the school has been a key to my own development as a student and for my development as a teacher. I believe that providing teachers with institutional resources that are responsive to their interests can provide a developmental route to change in the classroom. I also think that providing communities with new ways to relate to their schools via technology resources and a performatory approach to building communities might provide changes at the institutional level that are necessary to support changes at the classroom level.

Areas for Further Research

Several areas for further research are opened up as a result of this dissertation. The use of a performatory methodology in a technology classroom is a modest advance of the work carried out in after school programs in Fifth Dimension programs. The technology classroom also provides an entry point for performatory and social therapeutic approaches to teaching practice in the classroom. Providing technology resources that students and potentially their parents could use in expanding and changing relationships to schooling is also a possible next step based on what I have learned from this research.

Student Production of Educational Content (Science and Math)

Communities of scholars use publications and increasingly digital artifacts to share information and build the practices of the community. Increasingly inexpensive technologies such as digital video cameras, and open source software (Moodle, MediaWiki, Elgg) make it possible to support students to publish multimedia documents, audio streams and video. Using a performatory approach to the process of production may be a promising activity to transform emotions in math and science classrooms as well increasing the value of the production activities to students by providing a platform for an online audience. (Math and Science teachers also tend to be less averse to using technologies in the classroom.) An intervention in a mathematics or science classroom would require modest commitments of class time such as weekly half hour workshops, with facilitators who would work with students to develop emotional dimensions of mathematics learning and facilitate the production of videos and provide equipment and production expertise. Teachers and students could then be supported to reflect on the contents of the videos and work toward the development of content that is meaningful and supportive of learning in the school community. Does engagement increase by allowing students greater input into the selection of technology dependent projects and providing the means for more extensive peer review?

Uses of Discussion Forums and Messaging Technologies to Support Learning Communities

For the foreseeable future the school day will continue to be organized around set curricula, testing regimes and data driven instruction. Online discussion forums viewed as expanded opportunities for interaction that are driven by student interest, may provide a means for online performances, that can disrupt “question and answer routines” of the classroom without taking up “class time” and provide new avenues for assessing the learning environment. A research

project in the area of online forum usage could be conducted across all subject areas. Researchers could provide technology expertise, online courses to supplement teacher experiences in the forum expanded classroom and opportunities for face-to-face reflection and analysis of online discourse. Students and teachers could be supported to use the forums in ways that are consistent with established literacy standards but can also be evaluated on the basis of contributions to the learning community. A key feature of producing this environment is providing students with the incentives and means to determine the direction of many of the online discussions and training teachers to participate in expanding those discussions as opposed to steering them in a particular direction. Teachers would use the forums as an opportunity see students in a different light and engage the contradictions that may emerge when student forum contributions are viewed side by side with test results. Can teachers use qualitative data generated in discussion forums to improve relationships with students?

Performatory and Social Therapeutic Approaches to Internet-based Collaboration in Schools

Technology is increasing the number of interactions that students and teachers have as they come into contact with each other and the communities in which they are situated. Current approaches to school administration will become increasingly inadequate to address the issues that arise from online interactions. Schools currently employ lockdown scenarios and appropriate use policies as a response to the increasingly porous nature of Internet facilitated interactions. A new paradigm for training in the area of emotional development is necessary to support increasingly diverse and overcrowded school communities that are struggling to control online student interactions and parent-teacher-administrator interactions. Teachers are ill served when they are positioned as the gatekeepers of Internet activity.

A research project that provided online discussion forums or made use of existing resources for engaging all stakeholders in dialogues that typically happen behind closed doors and remain there without interaction of the broader community would be a first step toward greater transparency in school decision making. Such a project could also support interaction between parents and the various institutions and authorities (after school programs, parent coordinators, community-based programs, grant makers, researchers, service providers) that participate in creating and sustaining conditions at the school. A key to supporting creative dialogue among a broad audience of stakeholders would be to identify and train community facilitators or leaders to engage the contradictions in the community without playing "the blame game" and create a more developmental dialogue. Could providing a public space for the public discourses that a community has about its schools produce qualitative data that could be helpful in school or community policy making?

Interconnecting Neighborhoods and Schools – Creating an Audience

Schools within a geographical distance of just a few city blocks are frequently isolated from each other with the few interactions that they do have being limited to district meetings for principals, professional development meetings for teachers, and school rivalries and violence among the students. A research project that sought to interconnect the neighborhoods and schools with Internet technologies such as discussion forums or multi-media projects in partnership with the institutional stakeholders in the communities such as places of worship, community organizations, and non-profit organizations could provide support on several fronts. Transparency on a policy level, visibility of resources, and the ability to coordinate within the community are all facilitated by Internet technologies. The project would work to sustain meaningful dialogues between institutions and require training key stakeholders to recognize

mutual interests and organize coordinated action. Creating a diverse, inclusive online environment for students to participate in creatively and safely that is supported by established institutions with commitments to the community would be a step in the direction of transforming the community by transforming its relationships to its schools.

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