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Visual Methodology in Classroom Inquiry: Enhancing Complementary Qualitative Research Designs

This article presents the argument that combining visual methods with other qualitative research methods enhances the inherent strengths of each methodology and allows new understandings to emerge. These would otherwise remain hidden if only one method were used in isolation. In a qualitative inquiry of an elementary teacher's constructivist literacy practices, categorizing and contextualizing strategies using grounded theory and narrative analysis were juxtaposed with visual analysis. The interactive, interpretive process of moving back and forth between visual and textual data demonstrated the power of visual images to explicate the complexities of classroom practice.

Cet article affirme que le fait de combiner des méthodes visuelles avec d'autres méthodes qualitatives de recherche augmente les forces propres à chaque méthodologie et stimule l'émergence de nouvelles connaissances qui demeureraient cachées si une seule méthode était employée en situation isolée. Lors d'une enquête qualitative des pratiques constructivistes en littératie d'une enseignante à l'élémentaire, nous avons juxtaposé des stratégies de classement par catégories et de contextualisation basées sur une théorie à base empirique et une analyse narrative d'une part et une analyse visuelle d'autre part. Le processus interactif et animé qu'était celui de passer entre des données visuelles et textuelles a démontré le pouvoir qu'ont les images visuelles d'éclaircir les complexités des pratiques en salle de classe.

Given the pluralistic nature of contemporary society, some scholars recommend mixing social inquiry methodologies stating that compared with conclusions drawn from single method inquiries, knowledge claims from mixed-methods research will probably be "more insightful and generative" (Greene, 2001, p. 254). Over the past 20 years visual anthropology has moved from being an under-theorized and marginalized research genre to an accepted form of methodology (Ruby, 2005), yet most researchers using visual research methods focus exclusively on the epistemological and methodological aspects of creating and interpreting visual images (Chalfen, 1998; Harper, 2003; Pink, 2001; Prosser, 1998, 2007). Similarly, other qualitative research methods such as narrative inquiry (Clandinin & Connelly, 1998, 2000; Clandinin & Huber, 2002; Conle, 1996, 2000; Connelly & Clandinin, 1999; Lieblich, 1998; Riessman, 1993) and grounded theory (Charmaz, 1998, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1994) have been well documented, but they too are usually explicated in isolation from other research paradigms.

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Purpose

I argue that combining visual methodology with other qualitative research methods enhances the inherent strengths of each methodology and allows new understandings to emerge that would otherwise remain hidden if only one method were used in isolation. I demonstrate the power of visual methods to illuminate aspects of a study that might otherwise slip away from a focused analysis of textual data. I propose that visual methods can be a central means by which complementary research paradigms are infused with acuity of perception and depth of understanding. Although photographers' work has been accused of being "intellectually and analytically thin" (Becker, cited in Harper, 1998, p. 29), I argue that, on the contrary, photographs and videotapes can be a source of theory building and indeed offer rich insights to the field of study. I document the process I used in my doctoral study of an elementary teacher's constructivist literacy practices to demonstrate one method of combining visual methods with complementary methodologies.

Theoretical Framework

Qualitative methods that have evolved over the last few decades are the result of a shift in epistemological paradigms emanating from various disciplines of study. Changing philosophical assumptions about the nature of knowledge and reality have had a powerful effect on how research has been conducted in the social sciences. For my study I pieced together several research practices "selecting between and within competing and overlapping perspectives and paradigms" (Denzin & Lincoln, 1998, p. 4) and chose interpretist, constructivist, and feminist approaches as foundational philosophies for my inquiry into constructivist literacy practices.

The goal of an interpretist approach according to Schwandt (1998) is to understand human action. It is based on the premise that to understand the world, one must interpret it. This interpretive process of coming to understand human behavior is called *Verstehen*, a form of empathic and vicarious understanding that emerges out of and through experiences and relationships with others (Jackson, cited in Lawrence-Lightfoot & Hoffman Davis, 1997). Thus interpretation of experience is an integral element in any qualitative research (Lancey, 1993).

The second theoretical perspective, constructivism, is "a rich, deep, and complex tradition" (Denzin & Lincoln, 1994, p. 100) that has emerged in postmodern thinking. In contrast to a modernist view that an objective empirical world exists "out there" and facts about this world are knowable, a constructivist view posits that knowledge is constructed or created by individuals from their unique perspectives. According to Schwandt (1998), constructivists attribute reality with a pluralistic, plastic nature. Multiple versions of reality are possible and reality can be "stretched and shaped" (p. 236) to suit the purposes of individuals. The truth is not as it appears; rather, it has been constructed through our use of language as we tell and retell stories about our experiences. I propose that the construction of truth is aided by visual images that recreate these experiences, which are in turn reconstructed in the minds of the viewers.

Feminism is the third philosophical paradigm that affected how I approached my study. Feminists have questioned the epistemological and on-

tological assumptions underlying traditional research and argue that multiple realities exist and researchers can no longer assert a colonizer position of knowledge construction. According to Fine (1994), researchers should stop trying to know the Other or give voice to the Other; rather they should listen to those whose voices have been silenced through Master Narratives. Marginalized and oppressed people need to be heard in order to construct a multi-voiced interpretation of lived experience. We must recognize that we hold a position of power in our roles as academics, especially when our role involves interviewing children (Eder & Fingerson, 2002). Photographers and videographers capture and include multiple voices by incorporating actions and dialogue of all participants.

One of the means by which researchers have addressed the crisis of representation is to discuss the various tensions that arise as researcher and participants co-construct meaning of the phenomenon under study. Mathner and Doucet (cited in Luttrell, 2000) advocate the need to document the analytical research process:

The best we can do then is to trace and document our data analysis processes, and the choices and decisions we make, so that other researchers and interested parties can see for themselves some of what has been lost and some of what has been gained. We need to document these reflexive processes, not just in general terms such as our class, gender and ethnic background; but in a concrete and more nitty-gritty way in terms of where, how and why particular decisions are made at particular stages. (p. 500)

Another issue of representation concerns the format for presenting results of studies. Postmodernist scholars have challenged how knowledge is represented and have opened the door to experimental forms of representation (Denzin & Lincoln, 1998). Forms such as still photos and videos (Chalfen, 1998; Lykes, 2001) have been used in the past two decades. Visual images infuse the study with life that cannot be reached through a technical/rational approach alone. Ethnographic poetry, drama, and multimedia texts have been accepted in qualitative research circles in the last decade (Butler-Kisber, 2001; Luce-Kapler, 1997; Saldana, 1999). Political and even spiritual writings are appearing (Denzin & Lincoln, 2003), and researchers are being encouraged to continue to explore alternative forms of representation (Barone & Eisner, 1997; Ellis & Bochner, 2003). For this research I included photographs and videos as a means of communicating the essence of classroom experience. The visual texts, like poetic language, can elicit responses that touch the heart and speak to the whole person rather than solely to the analytical mind.

Methods

For my inquiry I decided to use case study, grounded theory, narrative methods, and visual ethnography as complementary research designs. Charmaz (2006) states that grounded theory methods

consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories 'grounded' in the data themselves ... Thus the data form the foundation of our theory and our data analysis of these data generates the concepts we construct. (p. 2)

Visual ethnography is a particular ethnographic method that uses photographs, film, and other digital media environments to learn more about people and their world (Goldman-Segall, 1998). Visual images and technologies have become both the method of exploring and the means of representing ethnographic knowledge (Pink, 2001). Narrative methods are forms of inquiry that depend on storytelling as a means of researching, organizing, and explaining a particular case under study.

A case study is “an exploration of a ‘bounded system’ or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context” (Creswell, 1998, p. 61). My purpose in studying a single classroom over a six-month period was to gain a rich description of one teacher’s literacy practices to develop a deep understanding of complex issues connected to literacy instruction. I studied Cathy (pseudonym) as she taught 19 second-language learners who had special needs. Visual images provided a virtual depiction of the dynamic interactions between teacher and students by recreating, albeit in a partial way, the reality of classroom life.

The Site, Individual, and Focus Group Selection

Determining the setting and sampling group is necessary in order to “bound” a study (Wells, Hirshberg, Lipton, & Oakes, 2002). I used reputational case selection as the strategy for identifying the teacher for my inquiry (Miles & Huberman, 1994). A language arts consultant, as “gatekeeper” to the school board, recommended an outstanding teacher who was well known for her exceptional teaching practice. Basing the selection on the recommendation of an administrator enabled me to approach this teacher with the approval of an insider and at the same time offered a greater chance that the classroom selected had a good chance of exemplifying the constructivist theoretical paradigm selected.

Pleasant View Elementary School (pseudonym) is a vibrant school situated in a thriving city in southern Quebec with over 500 students and 30 teaching staff. Over 90% of children entering the school are unilingual francophone children. Many families are bilingual in French and English, but the main language spoken at home is French.

Focus Students

I visited Cathy’s grade 2/3 class several times in the fall with a class of preservice teachers as part of a university-school collaboration. From January to June I made 25 visits during the two-hour language arts period in the morning, during which time I videotaped and audiotaped Cathy’s instructions and students’ interactions. The class consisted of 11 students in grade 2 and eight in grade 3, all eight following individual learning plans to accommodate the learning challenges they faced. Part way through the study I selected six children to study in greater depth than the rest of the class.

These children seemed to emerge gradually as ones that drew my attention. I chose four children who had the greatest learning difficulties because I thought that their literacy behaviors might reveal facets of the literacy program that would otherwise remain hidden with students who were able to read and write more easily. Jean Marc, Marie, and Sylvie (pseudonyms) were grade 3

students who faced learning challenges and needed the support of a teacher's aide for at least half an hour a day, four days a week. They had difficulty processing language and were unable to decode or encode print. Robert, also a grade 3 student, had a hearing impairment that required Cathy and the other children to use a microphone that amplified the sound through his headphones. I also chose Philippe and Charlotte, grade 2 students. Charlotte was a bright girl who read, wrote, and spoke quite well in English, whereas Philippe had begun the year in great frustration and felt unable to express his ideas in English either orally or in writing. The mother tongue of five of the children was French, and I felt that they represented typical challenges faced by most students in Cathy's class.

Ethics

I explained the project to Cathy, her principal, parents, and director general of the school board and sought their approval to study Cathy's literacy practices in her grade 2/3 classroom. I indicated to all participants that I would be videotaping and photographing the teacher and students, explaining that they could withdraw from the project at any time. The ethics review board approved the project and all participants returned their consent forms agreeing to participate.

The privacy and confidentiality of participants were crucial to the integrity of the study (Ellis & Berger, 2002). Using pseudonyms ensured the privacy of the participants in my text; however, I have used the images of both Cathy and the children in a number of presentations and have felt uncomfortable in doing so even though both Cathy and the parents agreed to allow me to use them in workshops, articles, and/or conference presentations. The images of Cathy and her students are powerful representations of the multifaceted and dynamic nature of the teaching-learning process, and I believe they do much to draw the reader into the reality of the classroom life, and in this sense the good that is served by including them outweighs the ethical concerns of revealing participants' identities. Nonetheless, these ethical issues are a reminder that social science research is a complex endeavour that requires sensitivity and thoughtful judgment.

Data Collection

I used a number of sources of data for my study. Field notes and documents such as children's notebooks comprised part of my data; visual materials such as photographs and videotapes of classroom activities formed an essential data component. I audiotaped the teacher's instructions and other informal conversations I had with several children and had these transcribed. As well, I conducted informal interviews with Patricia, the teacher's aide, and Norma, the grade 1 teacher with whom Cathy engaged in a peer tutoring collaboration, and one semi-formal interview with six focus students in order to gain an in-depth understanding of their perceptions of literacy learning in the classroom setting. I spoke with Cathy informally in the classroom at the beginning of the study in February and conducted a semi-formal interview with her in my home in May after having analyzed many of my data. These conversations were transcribed and used in conjunction with visual analysis.

Instead of the researcher being the sole interpreter of visual images, participants can play an important role in determining the significance of these data through a process of photo-elicitation (Harper, 2003). According to Prosser (2007), "photo-elicitation promotes respondents' and not the researcher's agenda, aids recall and triggers unanticipated reactions beyond what could normally be expected from interviews" (p. 22). I selected eight photographs for Cathy to respond to when I was writing her story, and her responses became part of my dataset.

During the class, I photographed and videotaped the classroom to capture the finer details of literacy events. Becker (cited in Harper, 2003) suggested that photographs are actually the conclusions to our unexamined theories. Some researchers

use the camera as an information-gathering instrument, to discover what Glaser and Strauss (1967) call "grounded theory." Photographs made during the research experience concretize the observations that field-workers use continually to redefine their theories. In this way photographs help build theory. In fact, the need to make photographs in the field requires that the field-worker look at something, and these beginning observations can be the starting point for making theory. (p. 194)

Deciding which literacy behaviors I would photograph was a fascinating process in itself because I had only seconds to choose the students and actions that I thought were significant. I also had to consider aesthetic elements such as lighting and clarity of children's body movements. Dozens of literacy behaviors were occurring simultaneously, and these were continually changing as the children interacted with each other in a given literacy event. Cathy's classroom was a treasure house of rich literacy practices, and it was difficult to limit the photographs to a reasonable number that could potentially tell a story about these practices.

Becker's (1998) assertions about the role of a researcher's theoretical assumptions in shaping the selection of people and behaviors to photograph accurately reflected my use of the camera as an information-gathering tool. During my 30 years as a language arts teacher, I had gained much personal, practical knowledge (Clandinin & Connelly, 2000; Connelly & Clandinin, 1999) and pedagogical content knowledge (Gudmundsdottir, 1995). I had developed my own living theories of learning through narrativizing my teaching practice (Conle, 1996, 2000) in what Schubert (1991) called *teacher lore*. Consequently, I chose behaviors that exemplified aspects of what I considered effective literacy practices, but I must admit that I did not exclude behaviors that I thought were not exemplary practices because I did not observe any that would fall into that category.

After each visit I transferred the photographs on my digital camera to my computer hard drive and stored them in files organized according to the date of my visit. I photographed students working alone or with others. As well, I photographed Cathy instructing the entire class and working with individuals or with groups of students.

I referred to these images many times throughout the analysis and writing of my study and found them invaluable in freezing a variety of practices that enabled me to study the multifaceted, complex nature of literacy instruction

and learning that would have otherwise been lost as time swept away traces of their existence. I printed two black and white copies of each photograph, formatting four images to a page, and stored one copy of these in a plastic folder according to the month they were taken. I numbered each image for easy reference. The second set of photos I cut into single images and sorted these during my analysis.

I used a reflexive analysis to explain the context and experiences that gave rise to original images (Pink, 2001). For example, a photograph of Cathy helping Jean Marc organize his materials for the new reading program she had designed for children unable to decode words depicted the concern Cathy had for these learners with special needs and her dedication to finding an alternative method of supporting their literacy development. Cathy was sensitive to the frustration experienced by Jean Marc and did her utmost to find a method that enabled him to use the skills and abilities he possessed. Although this image froze only a brief moment in time, it germinated a theory of Cathy's role as enabler, supporting learning and building self-esteem by responding to individual needs with care, focus, and respect. In addition, it depicted her role as director, one who planned literacy activities that would support individual learning.

The visual images provided a running chronology of classroom literacy practices during the year and exposed what happened during each literacy event. I referred to them throughout my study in order to augment details from my field notes, which in turn informed my ongoing work with the data. The relationship between video footage and other research materials provided insights that otherwise might not have been noticed, and the visual texts became an integral part of developing my theories about what was transpiring in Cathy's classroom. For example, I discovered how Cathy made meaningful learning happen through a process that embedded literacy instruction by asking questions, clarifying and defining concepts, and explaining or modeling skills in an authentic context that required their use.

The videotapes were catalogued and cross-referenced in my field notes for later study. Each videotape was dated, transferred to a file on my computer, and stored electronically. I maintained a chart of each visit and indicated which lessons were videotaped and/or audiotaped. Each lesson that was videotaped was also audiotaped, transcribed, and described in my fieldnotes. I viewed each videotaped lesson a number of times throughout my analysis to note nuances of voice tone and body language, as well as to note the movement of the teacher and children in the classroom.

These methods of data collection provided substantial documentation to enable me to analyze the literacy practices in the classroom. The visual data enriched my understanding of the role Cathy played in the literacy learning. The photographs were especially helpful in uncovering the more subtle nuances of each child's experience, particularly in reference to affective responses (Harper, cited in Becker, 1998). I discovered that the synergy of mutual collaboration enabled children to learn with efficiency and enthusiasm and that they developed strong, confident self-images as readers and writers as a result of positive, explicit feedback from their teacher.

Data Analysis

Grounded Theory

Once I had accumulated enough data, I read through the material and wrote analytic memos looking for patterns or themes (Creswell, 1998). Data collection and data analysis occurred simultaneously, and the interpretation of data influenced subsequent data collection (Charmaz, 1998, 2006). I used both categorizing and contextualizing strategies to complement each other in the analytical process (Maxwell & Miller, 1992). For categorization, the constant comparative method of grounded theory supported a rigorous and systematic analysis of data. Maykut and Morehouse (1994) explain the process.

The *constant comparative* method of analyzing qualitative data combines inductive category coding with a simultaneous comparison of all units of meaning obtained (Glaser & Strauss, 1967). As each new unit is selected for analysis, it is compared to all other units of meaning and subsequently grouped (categorized and coded) with similar units of meaning. If there are no similar units of meaning, a new category is formed. (p. 134)

I wrote four propositional statements that explained the central meaning of the phenomenon being studied by defining the properties or characteristics of a group of items, and I stated the rules for inclusion in that category. For example, the conceptual category of sharing knowledge-building refers to how the teacher, based on her personal philosophy and pedagogy, shares the role of knowledge authority and knowledge-builder through joint decision-making in a cyclical process of learning and teaching.

Narrative Analysis

Narrative analysis was used as a contextualizing strategy in which I drew from a combination of holistic-content method (Lieblich, 1998) and narrative analysis (Labov & Waletzky, 1997). Narrative research, according to Lieblich, is “any study that uses or analyzes narrative material” (p. 2). Narrative refers to the stories people tell about experiences. Bruner (1996) believes that narrative is a fundamental human capacity for organizing and making sense of our experiences. Story structure of character, tension, setting, and plot consisting of beginning, middle, and ending enable us to form connections between disparate events and come to understand them as having coherence and continuity.

Holistic-content method (Lieblich, 1998) enables the inquirer to see the whole picture while looking for patterns or themes that help shed light on the meaning of the experience in its entirety. I followed the steps below that allowed for a systematic method of searching for meaning:

1. Read the material several times until patterns emerge.
2. Record initial global impressions.
3. Select content or themes to follow.
4. Mark themes using colored markers.
5. Track results by noting conclusions for each theme.

I noted several themes in my initial coding such as professional language and encouraging responses and began collapsing some of the terms to generate some broader, more abstract categories. The process itself was one that de-

manded rigorous thought and careful analysis in order to examine all the initial codes to determine which items were connected

The next step involved synthesizing all the data for each individual and writing narrative summaries. As I began the process of analyzing the focus children, I realized that a factual narrative synopsis was not satisfying. I felt as if I were still too distanced from the children and wanted a more emic perspective, so I decided to examine the photographs of each of the children in an effort to identify more closely with the child as he or she was immersed in a literacy event.

Visual Analysis

Visual research, "the production, organization and interpretation of imagery," has come to prominence in recent decades as a significant means of studying education as researchers recognize the value of "observable information" in understanding the teaching/learning dynamic (Prosser, 2007, p. 13). In a positivist paradigm, the visual image represents an objective reality that need only be translated into verbal knowledge. A postmodern conception, on the other hand, posits that "all images, despite their relationship to the world, are socially and technically constructed" (Harper, 1998, p. 29), and the meaning of a visual image can depend on the viewer and the context of the viewing. Rather than focusing solely on the visual image itself, the researcher needs to consider the relationship of the image to all other forms of data collected in the study. According to Pink (2001), "relationships between video footage and other research materials and experiences (including memories, diaries, photographs, notes and artifacts) provide important insights as each medium may represent interrelated but different types of knowledge about the same theme" (p. 110).

The photographs brought me back to the classroom context, and I was able to revisit the original episode in which I had photographed the child by examining the details of the children and their surroundings. I had printed four photographs on each sheet in order to have prints large enough to provide the details required to recall the situation. The photographs were stored electronically in folders on my desktop and physically in a folder on a bookshelf near my desk. Initially I used the photographs in my analysis to gain a deeper understanding of how Cathy supported students' literacy development. Later, as I was writing about each child, I reviewed the master copies of the photographs in order to gain clarity and precision of thought. I studied the photographs carefully and selected images that caught the essence of individual learning or teaching. I went back and forth between the hard copies and the digital copies in order to select and then insert the chosen image into the text as I wrote the narrative summaries of each student. The photographs were arranged electronically by month so I could easily recall the literacy events that had taken place during that time period.

I also sorted the photographs into categories. There were some natural groupings such as the children tutoring grade 1 students and Cathy instructing groups of children. An element of the learning environment illuminated by this sorting process was the use of space by the children and by Cathy. Photographs showed children and Cathy in various spaces in the classroom. One image depicted three girls nestled in a corner on the floor behind Cathy's desk examining books in a serious, focused manner. Another image, taken from

behind Cathy's desk, captured Cathy, pencil in hand, in front of her desk bent over a child's notebook that was perched on the edge of her desk. The child stood facing her as she read her writing sample. These two images demonstrated how Cathy's desk was not used as a locus of power and control as is often the case in classrooms. These photographs provided insight into the "visible but hidden" culture of Cathy's classroom (Prosser, 2007) and manifested her epistemological beliefs that children construct understanding through their dialogic interaction with each other and their environment. Studying the visual images led to significant discoveries that would have remained unknown had I relied on text-based data alone.

The photographs were a powerful means of studying the children. As I pored over the photographs, certain details that spoke about the nature of the learners and the learning caught my attention. For example, one image depicted Robert sitting with his hands folded on his desk, his head turned to the side as he watched one of his two tutees choose a letter card to form a word. His stance was that of a self-assured teacher who was relaxed as he waited for the student to decide the correct response. Both his partners had their letter cards laid neatly on the desk before them. His second buddy was checking her own cards as if searching for the answer herself. The structured organization of the program, the respectful waiting as the learner lifted his card from the desk, and the concentration and engagement of each child all demonstrated the dynamic and self-regulated learning that was taking place during this exchange. Capturing and freezing this moment enabled me to explore the leadership role played by the children in greater depth than I could have done by merely recalling the peer tutoring program.

Labov and Waletzky's Narrative Analysis

Once the narrative summaries for the children were completed, I reread them all several times in an attempt to discover any further insights. I realized that I needed some kind of analytic method to tease out the significant elements from the stories. Labov and Waletzky (1997) used a structure that consisted of summary (problem), orientation (setting and character), complicating action (sequence of events), evaluation of the significance and meaning of action (no corresponding element in story map), resolution (solution and ending), and coda or return to present. I prepared a chart and recorded details for each child under each of the headings and then studied the chart to determine if any patterns existed.

I found that this analytic device teased out significant elements of each child's story and presented key aspects of his or her literacy experiences in the classroom. For example, my chart indicated marked changes in Philippe's attitude toward school. The first two columns depicted the problem of a fearful, insecure child who hated school, was afraid to make a mistake, and was frustrated by his inability to communicate in English. The third column described the actions Cathy took to address his learning challenges such as teaching writing strategies, conferencing, and providing feedback. The evaluation column indicated the significance of Cathy's positive response in changing Philippe's perceptions of himself as a writer. The final two columns were notations about the results or solution to Philippe's problems, and I stated that he was now a confident writer who was excited about school and cheerfully

claimed that he loved challenges. The evaluation category of Labov and Waletzky's (1997) narrative analysis was particularly helpful in identifying relevant findings for each of the focus students.

One photograph in particular enhanced my understanding of Cathy's role in transforming Philippe's negative attitude about writing. The image depicted the back of Cathy's head as she leaned her elbow against Philippe's desk and spoke in a quiet whisper to him about the story he had written. His face was captured on film. A gentle smile curved his lips upward, and his eyes glistened with anticipation as he grasped a new image of himself as author. This visual text told a powerful story of one child's transformation through the kind words of encouragement from a caring teacher. Combining narrative and visual analysis in this manner enabled me to discover a significant moment in a child's development, and at the same time it uncovered the pivotal role Cathy played as enabler, the guide from the side who supported and encouraged students by providing strategic feedback in an intimate dialogue with one child at a time.

Re-viewing videotapes brought to the fore a spiritual dimension of Cathy's teaching. Expressions of caring through physical touch revealed her empathic response to each child. One day Cathy was "making the rounds" checking on children as they were working on a task. She walked by Jonathan, whose hand was raised, clasped her fingers through his and held his hand for a brief moment as she slid into the chair next to him. This fleeting expression of deep love exemplifies how Cathy drew near to the children through touch. At the same time, she was stirred to compassion to act, not only feel. Her drive to find keys to unlock the doors of learning reflected the profound respect that Cathy had for each child in her care.

I was able to identify 16 propositions about the children's learning using these combined methods, which I collapsed into four major points. A major finding was that children developed strong, confident images as readers and writers as a result of positive, explicit feedback from the teacher and each other. Furthermore, children learned literacy skills that empowered them to assume responsible leadership roles in organizing and directing literacy events in a self-regulated manner.

I followed a similar procedure when analyzing Cathy's role in the classroom. I studied all the videotapes several times, making notes about her statements and actions that were noticeable. I studied the transcriptions of the interviews and all the lessons she taught and noted significant themes or patterns in my analysis journal. After completing the narrative analysis chart (Labov & Waletzky, 1997), I still felt as if I needed some way to bring all my observations together into a meaningful whole.

I returned to the photographs of Cathy and selected about 20 images that resonated with what I felt was integral to Cathy's role in the classroom. I laid them out on the floor and began to sort them into groups using an intuitive process of letting "the images speak to me." As I shuffled the photographs into various combinations, a new understanding slowly emerged. Silvers (cited in Adelman, 1998) explicates the tacit nature of this discovery process:

Discovery means locating phenomena that is not conceptually determined: phenomena that emerge out of the tacit concerns and interpretive sensitivities that you bring to the occasion of research. Indeed the whole point of the

“sensitive eye,” as you call it, is one in which the unconscious and conscious come together to inform us of what animates our action. (p. 150)

I rearranged the images of Cathy in various combinations, searching for meaningful connections between them and allowing the significance of each set of visual texts to speak to me in much the same way as Rosenblatt’s (1978) concept of transaction with the text. I brought my experience of learning, literacy, and the teacher’s role into a dynamic interplay and allowed the visual texts to evoke a personal response that coalesced into a gestalt-like understanding of Cathy’s roles.

I began to see four distinct roles that Cathy played in the learning of her students: philosopher, director, enabler, and connector. The philosopher teacher thought deeply about her educational philosophy and explicitly taught learners the value of and strategies for high-level (deep) thinking. The director teacher designed activities and evaluated performances through informal feedback and formative evaluations. The enabler shared the role of knowledge authority and knowledge-builder through joint decision-making; and the connector built self-esteem and literacy by developing mutually respectful relationships in a flexibly structured environment. Thus the sorting of these richly detailed visual texts was a powerful tool to strengthen and contextualize my narrative analysis.

Results and Conclusions

Combining visual methodology with complementary qualitative research methods enables researchers to gain a deeper understanding of complex phenomena. Still images freeze a slice of life and provide an extended opportunity for in-depth analysis and interpretation. Moving images capture experiences and bring back to life the dynamic interactions of participants. They concretize observations and jump-start memory of past events by triggering the researcher’s memory bank and unlocking doors to actions and situations that have faded from conscious memory with the passing of time. Visual images enable researchers to augment field notes by recalling additional details and consequently develop substantial documentation of an event.

Visual analysis adds to the truth of a study because photographers can shift their gaze (Goldman-Segall, 1998) toward previously less significant elements captured on film and bring to the fore voices, actions, and experiences of participants whose minor roles initially set them at the sidelines of the action. When revisiting the original event after having gleaned as much information as possible, the visual images, especially moving images captured on video, recreate the original event and allow the researcher to note behaviors and voices hitherto unnoticed. Visual images in my study enabled me to identify more closely with the children. Moreover, aspects of their learning that had remained obscure suddenly became transparent as I shifted my focus to them. In this sense, “images enlarge our consciousness” (Harper, 1998, p. 38) and allow researchers to construct multi-voiced interpretations of lived experience.

Educational Significance of the Study

Image-making begins as an information-gathering process (Harper, 1998); however, visual images are more than mere illustrations. They are social constructions that “express the artistic, emotional, or experiential intent of the

photographer” (Harper, 2003, p. 191) and have the power to infuse life into a study by touching audiences at a visceral level as they recreate experiences and evoke emotional responses to those experiences. Images, both still and moving, open the door to a spiritual dimension of phenomena by expanding analysis and representation from a technical/rational level to include affective responses to events and people.

The interrelationships between visual and non-visual data generate varied types of knowledge. An intuitive process of letting images speak to the unconscious as well as the conscious mind, the heart, and the intellect leads to the creation of a “sentipensante” knowledge—a thinking/feeling knowledge that evokes a wisdom of the heart (Randon, cited in Denton, 2005, p. 758). This new mode of inquiry pushes the boundaries of traditional research in an effort to comprehend our lived experience esoterically. Lincoln and Guba (cited in Denton) validate including a spiritual dimension to research by stating, “we may be ‘entering an age of greater spirituality within research efforts,’ which may permit us to ‘reintegrate the sacred with the secular in ways that promote freedom and self-determination’” (p. 756).

As more journals become digitalized, researchers will be able to provide virtual experiences of classroom interactions that will deepen insights about teachers’ best practices. Powerful software programs will allow for a level of analysis hitherto unknown to researchers as they share questions, theories, and data. Certainly the acceptance of visual studies as a legitimate form of research methodology will open the door to more extended use of video and photographs by both researchers and participants in the exploration of effective pedagogy in schools. However, further studies using combinations of visual methods and more traditional text and number-based methods are needed to expand our understanding of the complexities of schooling.

Visual studies represent a rapidly expanding field of qualitative research, particularly in the area of education. According to Ruby (2005), “the most significant direction [for visual anthropology] will be in the development of digital interactive ethnographies. Digital technology, computers, the Internet and digital delivery systems like the web, DVDs and CD-Roms have only just begun to have an impact” (p. 166). The same can be said for the use of visual research methodologies in the study of education. Qualitative researchers have recognized that “observable and tactile information is important in understanding the everyday realities of school life” (Prosser, 2007, p. 13), and future inquiries will depend more heavily on the richness of detail that visual imagery affords.

In this article I demonstrate how visual methodology can be combined with other qualitative methods to enhance each of the complementary designs. Visual research methods invigorated narrative analysis and grounded theory to enrich my understanding of effective literacy practices. By moving back and forth between categorizing and contextualizing strategies, between narrative and visual analysis, I was able to develop a deep understanding of the multifaceted, dynamic nature of the teaching/learning process. The rigor of systematic analysis of data through the constant comparative method of grounded theory was complemented with the contextualizing strategy of narrative analysis, and the intuitive interpretation of visual images in relation to all other

forms of data led to robust insights about one teacher's unique teaching approaches. I traced and documented this interactionist, analysis process (Goldman-Segall, 1998) in order to make evident how I constructed a meaningful interpretation of a teacher's literacy practices. Combining research methodologies in this manner strengthens qualitative research by enabling researchers to generate new understandings and theories.

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