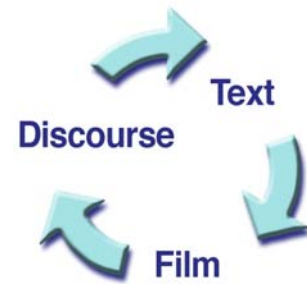


Office of Information Technology
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*Utilizing the Communicative and Generative Qualities of Video-Narrative in the
Development of Early Childhood Preservice Teacher Inquiry*

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Overview of Problem/Question

The process of becoming a responsive and effective teacher is one of continual inquiry and renewal (Ayers, 1995) and is particularly difficult for young, inexperienced student teachers (referred to here as preservice teachers). Among the dominant strategies for developing teacher inquiry in the U. S. include the use of reflective writing (Francis, 1995; Janesick, 2004), film or video tape (Goldman-Segal, 1998) and discourse (Moyles, Adams, & Musgrove, 2002; Whipp, 2003). These strategies are typically used separately with varying success. For example, it is common practice for teachers to videotape their teaching (especially when learning to teach as part of an undergraduate or graduate program), with tapes reviewed later. It is even more prevalent for them to engage in reflective writing. While preservice teachers utilize video tape and reflective writing as methods of inquiry, these practices are not typically linked and embedded in opportunities to engage in reflective discourse with others.



The question guiding this pilot study is “In what ways would coupling the semiotic channels of talk, text, and tape create a more robust mediational tool for helping preservice teachers develop inquiry characterized by discernment, judgment, and decision-making skills related to their teaching practice”?

Video Narrative as a Mediational Tool of Teacher Inquiry

The shaping of a video-narrative is built upon the interplay of text, talk and tape by preservice teachers as they conduct micro-analyses of their teaching practice. A video narrative is a digital document created by teachers on a computer in which video is embedded in text through a process of iterative cycles of micro-analyses of video tape clips of teaching. This interactive process of micro-analysis is an example of the “rigorous use of a systematic experimental method...that requires a learner [the preservice teacher] to observe, understand the significance of what they observe and to make judgments based on such understandings” (Calderhead & Gates, 1993, p. 57). In this qualitative study, two preservice teachers linked video tape clips of their teaching practice with reflective writing, and engaged in discourse with others as they analyzed and dictated text related to small sections (from 15 to 60 seconds) of film.

A goal of this study was to make visible preservice teachers’ practice and to create a context in which they developed an ability to critically observe and deeply analyze their teaching practice. Within this context, the development of video narratives served as the meditational tool and evidence of their analyses. A secondary goal was to determine whether engagement in analyses through talk and text with editing of tape

would become internalized and subsequently impact preservice teachers' teaching practice while "on the floor". It is this ability to adjust practice, in the moment, based on the emerging needs and abilities of children that is the ultimate measure of the success of an inquiry-oriented approach to teaching.

Methodology

There are four sources of data for this study that include (1) video tapes of preservice teachers' classroom teaching, (2) video tapes of their video narrative work sessions, (3) video narrative text, and (4) transcriptions of interviews. This preliminary analysis is based on two of these data, interview transcriptions and texts of video narratives.

Context. This pilot study took place at the Department of Child and Family Studies Early Learning Center for Research and Practice (ELC) and the Teacher Research and Documentation Center (TRDC). The ELC is the university laboratory school where undergraduate students complete teaching practica with infants, toddlers and pre-kindergarten-aged children. Adjacent to the ELC is the TRDC. The TRDC was the site where preservice teacher video narratives were created.

Sample. The preservice teacher sample was drawn from CFS students enrolled in two courses/practica at the ELC during spring 2008. The researcher made a presentation in students' lecture classrooms to ask for volunteers. Four preservice teachers agreed to participate with two preservice teachers completing video narratives. Pseudonyms are used for all names in this report.

Timeline.

IRB approval was granted for the study in late March. Recruitment of participants was conducted the first week of April. During the remainder of the semester two preservice teachers' completed interviews, video tapes were recorded of their teaching practice, and video narratives created.

Procedures. Students' were video taped across two weeks. They selected a tape to review and identified footage called a "rough cut" clip (4-6 minutes in length) to micro-analyze for a video narrative. Each "rough cut" was viewed on a computer screen in the TRDC, using iMovie© HD software and created using Keynote© software. Each preservice teacher was assisted by a technology information specialist and the researcher. The information technology specialist used one computer to edit the tapes while the researcher used a second computer to type text dictated by the preservice teacher (see Figure 1).

Figure 1. Vide narrative work session



During these sessions, each preservice teacher controlled the pace and focus of her micro-analysis, determining when to start and stop the tape and what footage to cut out of the tape, stating and restating her analysis, changing words and phrases, and deciding whether to introduce or follow a clip with a corresponding explanatory text. Preservice teachers occasionally asked for help in finding the “right word” or “phrase” and on these occasions the researcher asked clarifying questions, offered suggestions, engaged in dialogue with them, and listened to their reflections. The researcher’s role included re-reading text to the preservice teachers for their continued consideration and edits. This process continued across three, one-hour sessions until each preservice teacher was satisfied with the wording and linkages between her video narrative text and video clips.

Prior to and following the video taping of the preservice teachers practice and completion of their video narratives, the researcher conducted one-on-one semi-structured interviews with each student teacher. The purpose of these interviews was to determine the degree to which the preservice teachers believed they used critical thinking and observation related to their teaching. At the close of the video narrative sessions, they were asked questions related to the process of creating video narratives, focusing on the potential impact on their thinking and practice.

Analysis of data

Video narrative text. The initial phase of text analysis is based on a method of constant comparison (Miles & Huberman, 1994) across the three drafts of text to identify emerging themes and patterns. Specifically, as preservice teachers viewed tapes and dictated their analysis, the drafts of their written texts were coded in terms of content and the structure of the text.

One-on-one interviews. Pre- and post-interviews (30-45 minutes each) were transcribed, verbatim, and cross-tabulated and recorded on matrices and data displays through the use of conceptual memos using constant comparative methods. Future analyses will include uploading the texts and codes of interviews, video narrative work sessions, and video narrative texts into Atlas.ti software to analyze the intertextuality the data sources of text, talk, and tape.

Preliminary Findings

Video narrative texts. Across the three video narrative work sessions, preservice teachers’ text changed in focus and written structure. Initially, texts were characterized by summary statements with a focus on the children’s actions rather than the preservice teachers’ practice. Later, texts became more descriptive and centered on teacher actions as a point of analysis. Further, as preservice teachers revisited their video tapes and earlier texts, they began to evidence a change toward projecting actions based on new understandings and applying knowledge from course content to their teaching practice.

For example, Alex focused on her teaching of a three-year-old child as the child attempted to construct a clay replica of a lizard claw, following their study of a pet lizard brought into the classroom. In the following excerpts (Figure 2), taken from texts across her three video narrative work sessions, Alex’s statements changed to reflect an increased discernment and judgment about her exchange with the child. Specifically, the transformations in text reveal an emerging ability to move away from a simple

description of the event toward an analysis that included applying theory to practice and projecting future practice. Note that the opening text of Session 3 is underlined to designate Session 2 text Alex chose to keep and extend during her final work session.

Figure 2. Excerpts from Alex’s video narrative texts

Session 1	Session 2	Session 3
<p>There [referring to the video tape clip], I was trying for her to see one-to-one correspondence between the clay and the picture. But it wasn’t working... we counted several times. She just wanted to make more fingers. I think that she found something she knew she could do and I was positively reinforcing her so she thought, “I will keep making fingers!”</p>	<p>In the following clip I am working with Ava to help her sculpt her lizard claw. I gave her positive reinforcement to help her verbalize her knowledge about the number of fingers on a lizard claw. She had not been very verbal in the activities throughout the semester. [Embed clip 2 about here.]</p>	<p><u>In the following clip I am working one-on-one with Hanna to help her sculpt her lizard claw. I gave her positive reinforcement to help her verbalize her knowledge about the number of fingers on a lizard claw. She had not been very verbal in the activities throughout the semester.</u> I wanted her to talk so that I could determine what she knew so that I could scaffold her within her ZPD. I think that she was not sure about how to work with clay and so she needed extra support and help to get through the task. [Embed clip 2 about here.]</p>

Similar to Alex’s experiences, the focus and structure of Rachel’s dictated texts began to evidence an increased sophistication of analysis, characterized by an ability to more critically observe the video clips, link theory to practice, and discern aspects of the video clips that warranted deeper analysis. In Figure 3, the focus of Rachel’s analyses refers to an early moment during her teaching a small group of children (ages 3-5 years) in which she struggled to support their verbal descriptions as they focused on a photograph as a referent for their clay constructions of a lizard claw.

Figure 3. Excerpts from Rachel’s video narrative texts

Session 1	Session 2	Session 3
<p>I was watching Eliza because she started to make a second claw and I didn’t see Daniel get out of his chair and dance around the classroom.</p> <p>So Adam showed me the picture and I probably could have expanded on what he was saying...I could have asked more questions and not say, “Good job” -- which is what I always say.</p> <p>I could have asked him how the pipe cleaners looked like the picture...asked him what the lizard uses her claws for and why they are useful.</p>	<p>I repeated all the ideas the children had just shared with the group...the sticky toes, the pointy claws -- in order to help the children use the ideas in their moldings. Here, I am using language as a way to scaffold the children’s learning.</p> <p>With Adam I brought the picture over and pointed out the specific parts of the toes and lines. I asked him how he thought he could do that [in his own representation]. I started to touch it [his representation of the claw] but I pulled back to keep myself from changing what he was making.</p>	<p><u>I repeated all the ideas the children had just shared with the group...the sticky toes, the pointy claws -- in order to help the children use the ideas in their moldings. Here, I am using language as a way to scaffold the children’s learning.</u></p> <p>... I tried to help them visualize what a lizard hand looked like by holding up my photograph with my hand next to the picture of the lizard hand and then I pointed out the characteristics of the lizard hand by asking six questions. I wanted to help</p>

		<p>them determine what else was different...I was helping them compare and contrast and verbalize the differences. I guided their thinking by focusing their attention on my photograph and hand, asking questions, and repeating their responses back to them. My intention was to prepare them for molding detailed lizard claws through developing intersubjectivity about how to make them.</p>
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One-on-one interviews. Transcriptions of Rachel’s and Alex’s final interviews revealed some of the ways the process of creating video narratives influenced their thinking, their analyses, and projections about future practice. For both participants, the initial work sessions were challenging and intimidating. They were concerned that they would “not do it right” and did not feel comfortable looking and listening to themselves. Alex noted,

Well, the first day I was actually really nervous so it was really hard to sit down there but once we actually started working it was really neat to be sitting there and have Nancy, she’s so great with the computer. It was fantastic. I’ve never seen such work like that. It was great. Just being able to sit and pick it apart. It was just. I don’t know. The whole thing is just...it’s very enlightening. The first day was really hard but as you got into it, it got easier and it was real comfortable and relaxed.

Rachel added,

The first day it was a little intimidating but after that I was used to it and I knew what to expect when I came in and starting talking about what I was doing. I think the hard part was watching myself and criticizing myself...looking at all my actions and how I teach.

However, as the work sessions unfolded, they became more comfortable and began to see, and see again. This ability to critically ascertain the complex layers of the teaching-learning process enabled Rachel and Alex to identify strategies they deemed positive even as they discovered ways they could develop more effective teaching practices in the future. In the following excerpt, Rachel’s reflects on her growing ability to more deeply discern the nuances of her practice,

The first time I think I really just saw the surface of what I was doing, what was going on with the children and I’ve noticed where the children were doing things that I didn’t notice when I was teaching and then when I came back the second time and watched it again and then watched it again, after watching it a few times I started to see deeper, more things that I was doing. I could tell I remembered what I was thinking when I was teaching and what I saw now. And, after watching it a second and third time I saw different things. It was like I was watching a different video even though I had seen it five times. I was seeing more than I saw the first time.

They also noted that over time, they began to reorient their focus away from the actions and language of the children toward their own. As they did so, they worked to apply course knowledge to their practice, generating rationales and questions related to their practice. This shift in viewing came with increased familiarity with the video tapes and a “settling down” that enabled them to use their earlier analysis to inform subsequent analysis as they focused more closely on themselves in relation to the children. Alex recalled,

Well, in the beginning I was just more focused on the children -- what was going on. As we got further into it I was able to say “Oh, well that’s what I was doing. I can’t believe I did that! Because of this, I was able to pull in development and other things so I was getting a deeper perspective.

Rachel further remarked,

I was seeing myself in a different light and I was able to critically look at what I was doing and criticize myself positively and negatively with my actions, not just be like “Oh, I am helping the children mold clay”. But now, I see I’m guiding the children through transferring their ideas into representations and using different kinds of media to represent their ideas.

Each participant believed that the creation of video narratives was a learning experience that made visible their practice and better situated them to make more informed decisions in the future. Their increasingly deeper analyses enabled them to identify how they would become more effective in the future as they anticipated acting with more deliberation.

The first time I kept thinking, “Oh, I really messed up there” but it’s easier to go back and look closer and see where I did do things right after the second and third times. So, I know as I keep going I can use those same things again. [Rachel]

I would say it’s a way to critically analyze my practices but actually it’s more of a learning process. You’re going to learn more about yourself and more about the classroom and just everything in general. [Alex]

Discussion

The findings from this pilot study point to the possibility that the micro-analysis of short video clips may prove equally as helpful in the development of teacher inquiry as the review of many hours of video tape of classroom practice. This study is limited in its scope and number of participants and as such, is only a first step toward future research on the nature of the intertextual relationship among the semiotic channels of text, talk, and tape on teachers’ abilities to critically analyze their practice. The limited timeframe of the study did not allow the opportunity to determine whether the participants’ reflections about ways to alter future practice based on their analyses would have, indeed, occurred. The ultimate measure of the success of an inquiry-oriented approach to teaching is in affecting change while in the classroom. Future research will include provisions to study the desired relationship between reflective and inquiry-oriented practice.

What is evident for Rachel and Alex is a growing awareness of their potentials and possibilities to become increasingly effective teachers. In particular, their expectations that as a result of their video narrative work they are better positioned to self-regulate their future classroom practice. Further, they successfully identified many practices they deemed developmentally appropriate, even as they identified areas for growth. They were challenged to apply content learned in coursework to their teaching and yet, when they had multiple opportunities to do so, felt successful in generating what Cochran-Smith and Lytle (1993) refer to as “local knowledge”. Teachers’ use of local knowledge constructed from their own experiences, coupled with knowledge from the field of teacher education, best positions them to teach from an inquiry-oriented stance informed by coupling what and how they come to know with knowledge from outside experts.

While video tape and photographs have become common forms of representation of early childhood classroom experiences, there is limited research on the relationship of discourse, film, and narrative text on teacher thinking and practice. The research reported here is an attempt to begin to uncover the ways in which these diverse yet related forms of representation may come together to form powerful meditational tools that better support the development of teacher inquiry.

Endnote

The preliminary findings from the study were presented at the National Association for the Education of Young Children Professional Development Institute Annual Conference, *Technology and Early Childhood Education*, on June 10, 2008 in New Orleans, LA, within the theme-related topic area of “Technology for Teacher Preparation and Ongoing Professional Development”.

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