

Teacher Educators as Learners: How Supervisors Shape Their Pedagogies by Creating and Using Classroom Videos with Their Student Teachers

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Although classroom video is well recognized as a valuable reflective resource for student teachers, we know very little about how university supervisors' pedagogical practices are shaped by creating and using videos with their student teachers. This study explored how 12 supervisors developed greater stances of inquiry toward their practices as they experimented with video and shared their experiences with peers. Patterns in project meeting and interview transcripts revealed how these experiences not only enhanced their existing personal approaches toward supervision and helped them "anchor messages" they wanted to communicate to their student teachers about teaching methods, but also challenged their roles as observers and prompted them to build messages about teaching dispositions directly from video. The findings show how a community of practice encourages supervisors to take considerable responsibility for their own growth as teacher educators and provides a coherent framework others can use to pursue similar professional development initiatives.

INTRODUCTION

With rapid advances in technology, video recordings of lessons taught by preservice and in-service teachers are becoming commonly used to improve the quality of teacher practice. More recent research suggests teachers who view video of their own teaching are more likely to base instructional decisions on students' learning and to increase expectations for student success than those who do not (e.g., McConnell et al., 2008; Santagata, 2009). Video records also allow synchronous and asynchronous sharing with multiple participants, including peers and supervisors. Sharing videos provides collaborators the opportunity to notice and ponder discrepancies between teachers' intentions and actions and to affirm connections between theory and practice (Rosaen et al., 2010) in ways that written records or "recall" reflections about teaching may not (McConnell et al., 2008).

The authors would like to thank all of the many players in this project whose continuing dedication, persistence, and spirit of collaboration continue to drive forward this effort to assist supervisors in creating and using video in ways that will most enrich the education of their student teachers and of the students they teach.

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Because preservice teachers often assess their effectiveness by what they say and do rather than by how their students respond (Morris, 2007; Santagata, Zannoni, & Stigler, 2007), video can guide them to reflect about the attitudes, beliefs, and assumptions that influence their practices and their students' learning (Ovens & Tinning, 2009). Multiple cycles of reflection and action are required before teachers find compelling reasons to teach differently (Elmore, 1996). Video can support these cycles by distancing teachers from their actions to help them "mediate [their] subjective apprehensions of the world as teacher[s]" (Greenwalt, 2008) and foster critical stances toward practice (Cambourne, 1999).

In-service teachers seeking National Board Certification have submitted videos of their teaching as part of a rigorous professional evaluation portfolio for some time (National Board for Professional Teaching Standards, 2012). The value of capturing and analyzing one's practice is now becoming much more widely recognized as state certification boards are adopting assessments that require preservice teachers to submit video as an authentic artifact of their instruction and its impact on students' learning, as in the Teacher Performance Assessment (edTPA) (American Association of Colleges for Teacher Education, 2012). In both cases, video represents only one piece of a larger cycle of planning, enactment, and assessment of teaching. Conversations around videos can stimulate teachers to take more ownership of discussions about their learning, increasing their receptiveness to feedback and promoting their interest in participating in communities of practice (Harford & MacRuairc, 2008) that they can integrate into their professional lives.

As there is very strong evidence that field experiences play a crucial role in preparing teachers (Guyton & McIntyre, 1990; Wilson, Floden, & Ferrini-Mundy, 2001), it is very important to understand how university supervisors shape the learning opportunities provided by video. Supervisors have a critical responsibility to help student teachers navigate theory-practice connections and to unpack the complex dynamics of teaching and learning. They often work at the peripheries of teacher education institutions, however, where their contributions can be undervalued and underutilized (Wilson, 2006) and where they find limited access to meaningful professional development and productive peer interaction (Slick, 1998). Supervisors may also steer around directives over which they have little input (e.g., assessments for accreditation) by protecting intact pedagogical approaches in which they believe (Zeichner, 2010) and "inserting" rather than integrating new approaches into their practices. Initiatives that expand expectations for student teachers must be complemented by "sense-making" activities (Levine, 2010) for supervisors to experiment with new strategies and work together to find ways to integrate new initiatives into their pedagogies.

PURPOSE OF THE STUDY

This study focuses on a major transition point in a Video Reflection Project (in its 3rd year at the time of this writing) designed to identify video-based reflection strategies that improve student teachers' decision making and their students' learning. We began by looking at supervisor learning, particularly because recent research (e.g., Santagata & Angelici, 2010; Zhang, Lundeberg, & Eberhardt, 2010) suggests that the forms of guidance and the contexts in which video are used heavily influence its impact on student teachers' learning. As such, we designed the project to provide supervisors with as much individual and collaborative agency as possible to consider how video influences their practices.

Very little research explicitly examines supervisor learning in professional development programs. Our project attempted to provide a space for supervisors to negotiate change over which they have direct power, elevating their vested roles in our teacher education programs by using a strongly learner-centered approach and reducing their sense of isolation by offering them continuous opportunities to collaborate with each other. Our current focus is to understand how creating and using videos of their student teachers help supervisors develop more of an inquiry stance toward their practices, addressing these two questions:

1. How were supervisors' existing approaches for supporting student teacher learning enhanced and challenged by creating and using video?
2. What did supervisors learn about their own pedagogies by creating and using video and how did sharing those experiences with others support that learning?

CONCEPTUAL FRAMEWORK

Discourse around videos of one's teaching not only is "less susceptible to [one's] selective memory" but also underscores conflicts between one's professed beliefs about "good" teaching and one's actual classroom practices (Yerrick, Ross, & Molebash, 2005). These conflicts are central to practice-based reflection. Video helps teachers position themselves at enough distance from their actions (Mansvelder-Longayroux, Beijaard, & Verloop, 2007) to recognize areas of their knowledge, skills, and dispositions that are in need of change, particularly when they use it as an authentic lens to analyze their impact on student learning.

Cultivating a Stance of Inquiry

With thoughtful guidance from their supervisors, as student teachers view, discuss, analyze, write about, and contemplate feedback about their classroom videos, they begin to develop personally established substantive theories that make their decision-making frameworks more responsive (Postholm, 2008). Dewey (1933) stressed the importance of focusing such reflective activities around problems that arise in one's own practice and saw them as opportunities for teachers to actively develop greater open mindedness, responsibility, and wholeheartedness about their work. Schön (1987) also emphasized the value of not only reflecting more slowly and deliberately about past teaching ("on-action") but also more deftly and pointedly during teaching ("in-action").

These core ideas about teacher reflection engender a "stance of looking at [one's] own practice . . . by analyzing, adapting, and always challenging [one's] assumptions in a self-sustaining cycle" (Smith, Hofer, Gillespie, Solomong, & Rowe, 2003, p. 20). This stance of inquiry fosters the habits of mind (Habermas, 1973) that enable iterative reinterpretations of one's own and others' practices. When used as a shared artifact of the larger process of learning to teach, video situates student teachers and supervisors as learners. The "act" of teaching becomes more concretely visible for shared analysis, providing a focus for collective dialogue to unpack what transpired during a lesson and why it happened. Video can guide more explicit cycles of shared work in the style of action research because it helps viewers more accurately gauge whether their proposals for improving practice are likely to improve student learning in a particular setting (Osterman & Kottkamp, 2004). As supervisors participate in this climate of reflection, they

articulate and reinterpret their own pedagogies as they negotiate how video influences how they guide student teacher learning.

Cultivating a Community of Practice

When supervisors contemplate their own pedagogical choices, they simultaneously cultivate their own and their student teachers' growth as educators (Dewey, 1933). As supervisors make choices about how to create and use video, they think about not only how video can best support individual student teacher learning, but also how it intersects with their existing pedagogies. When they share the outcomes of these choices with their peers, they gain "exposure" to others' ideas and sharpen their own ideas as they articulate them (Costa & Kallick, 2000; Kuhn, 1992). It is in this sharing that supervisors can learn as participants in a community of practice (CoP) (Lave & Wenger, 1991), a concept that has been widely employed to promote and examine how learning develops through communication among teachers, but far less so among teacher educators.

Change is too often imposed upon rather than generated from activities intended to improve the practices of educators, especially supervisors who must negotiate change within and across the frequently stratified spaces of universities and P-12 schools (Cochran-Smith & Lytle, 2009). CoPs have broader objectives, more fluid existences, and more flexible memberships than most professional development initiatives (Grossman, Wineburg, & Woolworth, 2001). As outlined by Wegner, McDermott, and Snyder (2002), our learning space was characterized by the three essential features of a CoP: a common domain of knowledge (student teacher supervision), a notion of community (meetings and support fostering interaction and sharing), and a specific practice focus around which to develop new knowledge (creating and using video with student teachers). These features created conditions for supervisors to articulate and share not only their explicit knowledge about creating and using video, but also their implicit knowledge about how they support student teacher learning (Herrington et al., 2008), which revealed how supervisors positioned themselves as educators and learners.

Wenger et al. (2002) assert that successful CoPs (1) evolve and shift focus naturally, (2) allow for open dialogue from within and outside, (3) welcome different levels of participation, (4) include public and private learning spaces, (5) encourage discussion about their overall value, (6) ensure structured and flexible occasions for learning, and (7) nurture an appropriately paced rhythm for participation. As we designed the project to inspire supervisors to redefine and support their own and each other's growth (S. M. Wilson & Berne, 1999), we attempted to cultivate our CoP with all seven of these features. This approach allowed us to fully acknowledge supervisors' prior experiences and gently encourage them to consider how to integrate new pedagogies into their practices.

METHOD

Study Context and Participants

The Video Reflection Project began in spring 2010 as an initiative of the Technology Committee of our School of Education in anticipation of changes to our state's initial teacher certification examinations, which as of spring 2014 will include the edTPA. Although the project intersects

with accreditation requirements and other Committee initiatives, its primary focus has always been to encourage preservice teachers to use videos for reflection to develop practices that better meet their students' learning needs. As reflective practice is one of our School of Education's six core values, we developed the CoP as a space for supervisors to learn how to guide student teachers to reflect about videos of their own teaching.

In spring and summer of 2010, equipment and web-based systems for working with video files were researched and selected, and basic protocols for the creation and use of video were suggested (e.g., whether required formal observations would be taped, what role cooperating teachers would play, and how permissions from schools and parents would be approached). We quickly decided to position these protocol decisions with supervisors to respect the diversity of their experiences and encourage them to develop the strategies they found most intelligible, plausible, and fruitful (Hewson, 1996) for their own student teachers' learning. We committed to creating conditions for supervisors to include video in their work in ways that built upon their own strengths, resources, and creativity rather than directing them to adopt certain strategies that seemed to work for us.

We held two formal project meetings with participating supervisors each term from fall 2010 to spring 2012. At earlier meetings, we spent more time discussing protocols for using equipment and the web-based system and for securing permissions to videotape at field sites ("procedural" protocols). At later meetings, we spent more time sharing and discussing supervisors' experiences with creating and using video ("pedagogical" protocols), which are the focus of this study. As project documents (e.g., equipment tutorials, permission forms/letters, videotaping guidelines, reflection prompts, meeting minutes, and project summaries) were shared and developed, they were posted to a website available to all supervisors. Although we began by sharing how we created and used video, we routinely collected and uploaded all the strategies supervisors suggested or used and never presented any strategies as more "effective" than others.

From its inception, the project has benefitted from a diverse and strong culture of support that has been indispensable in promoting and sustaining its goals, particularly as it validated the work of our supervisors. Our dean, associate dean, and personnel and faculty from our field experiences office, faculty support center, School Technology and Fieldwork Committees, and Office of Information Technology participate in ongoing dialogue about the project's mission and provide direct feedback and support. In the last 2 years, voluntary participation has steadily increased from 5 to 15 supervisors, most of whom attended (sometimes via Skype) at least three recent meetings and created and used video with their student teachers. As shown in Table 1, this group of five full-time and seven part-time faculty (assigned pseudonyms), none of whom are graduate students, have a wide range of experience in supervision (2–20 years), P–12 teaching (1–22 years), and P–12 leadership positions. Although the group teaches across several different programs, most supervisors work with the same students in a field experience one day a week in the term before they student teach in the same schools. These schools cut across a wide range of suburban and urban districts that share a variety of partnerships with our supervisors and School.

Data Sources and Analysis

We chose to address our questions with elements of grounded theory (Corbin & Strauss, 2008) and case study (Yin, 2009). As supervisors were consistently at a variety of places, often for logistical reasons (e.g., had very few student teachers in a given term or had just recently joined),

TABLE 1
Participant Areas of Supervision, Teaching, and Related Experience (total number of years)

<i>Supervisor</i>	<i>Student Teacher Supervision</i>	<i>P-12 Teaching Experience</i>	<i>P-12 Leadership Experience and/or Appointments in 13+</i>
Angela	Elementary (6)	Elementary (10)	Elementary principal (14)
Amy	Elementary (6)	Elementary (6)	District Project Child coordinator (4) Elementary principal (13)
Bob (author)	Secondary science (6)	High school science (9)	Assistant professor (7) Director of Secondary Education Programs (1)
Carol	Secondary (several subjects) (4)	High school math (12)	Chair of high school math (25) District Coordinator of Math (14)
Christine	Art (K-12) (4)	Visual arts teacher (8)	Assistant professor (4) Chair of Visual Arts (8)
Cheryl	Art (K-12) (4)	Preschool and visual arts (2)	Assistant professor (4)
Donna	Secondary (several subjects) (10)	High school English (1)	Instructor and clinical associate professor (15) Director of Teacher Education Field Experiences (7)
Deborah	Early childhood (2)	Special education (12)	Instructor and clinical assistant professor (10)
Frank	Elementary/special education (20)	Elementary (7)	Elementary principal (27) District superintendent (10)
Mary Jean (author)	Elementary (5)	Elementary/middle school science (13)	Coordinator of Elementary Science (10) Instructor, visiting and clinical assistant professor (17)
Ruth	Elementary/special education (8)	Elementary (17)	District literacy specialist (6)
Rebecca	Elementary special education (9)	Elementary (22)	
Scott	Special education (10)	Industrial arts/vocational tech/science (including special education) (9)	Associate professor (10)
Sandra	Elementary (11)	Elementary (11)	Director of Teacher Center (20)

grounded theory provided a viable framework to interpret the range and substance of everyone's experiences. Because we had more diverse data about the experiences of five supervisors (Carol, Donna, Frank, Ruth, and Sandra) whose participation was more substantial, we used a case study approach to interpret in some depth how creating and using video influenced their pedagogies and how sharing their experiences with others guided their inquiry stances toward those pedagogies. Although we led group meetings in very open-ended ways to ensure supervisors could engage in conversations at whatever intensities they wished, we consistently asked them to share their new experiences with video.

In the three most recent project meetings (late fall 2011 and early and late spring 2012), many shifted their comments toward pedagogical protocols they were using, suggesting they reached enough confidence in enacting procedural protocols. These fluid conversations appeared to fairly represent their learning. Because one half of the supervisors had not fully shared their experiences, we asked them the same questions we asked in group meetings (how they created and used videos, how they assessed its value for their student teachers, and how it affected their own growth as supervisors) in individual semistructured interviews.

More than one half the time devoted to the three most recent meetings and six interviews (about 90 and 30 minutes each, respectively) was focused upon how supervisors created and used video. Only the segments of our conversations that focused upon these protocols were transcribed verbatim and became primary data. Secondary data included earlier meeting minutes, e-mail and other face-to-face communications, our field notes, and reflection prompts and student teacher journals shared by supervisors. Although we created and used video alongside our peers, we deferred inclusion of our experiences to our roles as project facilitators.

A reading of the nine transcripts revealed that supervisors raised about 30 video-related pedagogical issues. These issues guided several iterative rounds of open and closed coding (Stake, 2010) on the same transcripts, resulting in 18 categories each represented by multiple conversations (at least 10 segments of dialogue) and participants (at least five transcripts). The constant comparative method (Charmaz, 2007) was then used to cross-reference these categories with each other and the secondary data to refine their meanings and ensure they accurately described supervisors' experiences. This step resulted in the clustering of the categories into five fairly distinct threads: two each about how supervisors created video and used video and one about their CoP experiences. At each major juncture of analysis, we discussed and sharpened our independently derived claims to enhance the trustworthiness of these three sets of findings (Yin, 2009).

FINDINGS AND DISCUSSION

Table 2 summarizes how supervisors created and used video and the appendix shows samples of shared reflection questions some used with their student teachers. In the following narratives, quotations are annotated with abbreviations identifying their primary data sources (meetings in late fall [M1], early spring [M2], and late spring [M3], and individual interviews [I]) or with full phrases identifying their secondary data sources (e.g., group meeting, 04/11).

Creating Video

Who taped and what was taped. Because a primary responsibility of supervisors is to formally observe and write reports about their student teachers' teaching, the participants had to decide whether to videotape these observations and whether to do the taping themselves. They approached these choices in a variety of ways revealing how they saw their roles as observers and how creating videos of their student teachers, however it was done, affected those roles.

Some supervisors who taped observations themselves devised ways they could integrate their observing with taping. For example, at first Ruth alternated taking video and writing. In later tapings, she took continuous video and produced "a list of points" to reference during postobservation conferences, after which she drew upon her own viewing of the video and the video-based reflections her student teachers wrote to complete her report (M2). Others postponed all writing until after the observation. Cheryl, for example, noticed not only how she "had a different kind of presence in the room" while filming with her iPad, but also how being unable to take notes while taping allowed her to communicate to student teachers what she was seeing in a more "mindful" way:

TABLE 2
Summary of How Supervisors Created and Used Videos with Their Student Teachers (STs)

<i>Supervisor</i>	<i>Who Taped</i>	<i>Number of STs and Times Taped</i>	<i>What Was Taped</i>	<i>How Video Was Viewed</i>	<i>Specific Set-Ups, Prompts, or Reflection Questions Used</i>
Angela	Project assistant	1 ST once	Full observation	Clips shared in seminar	ST reviewed her assessment of student learning
Amy	Project assistant	9 STs once	Short segments, then full lessons	Privately with ST, ST alone, or ST shared with one peer	STs reviewed how video evidence could improve their teaching
Carol	Other STs	6 STs once 3 STs twice	Full lessons and observations (after practice)	Supervisor and ST separately, then ST-selected clips shared in seminar	STs conferred with cooperating T before videotaping, then answered reflection questions
Christine	Self	1 ST once	Full observation	Supervisor and ST separately, then together	ST completed observation rubric before discussion
Cheryl	Self	1 ST once	Full lesson	Supervisor and ST separately	ST completed open-ended prompts before discussion
Donna	Self	4 STs once	Full lessons	Privately with ST or with cooperating T and principal	STs chose observation rubric items and reflection questions for focus
Deborah	Self	2 STs three times	Increasingly specific lesson segments	ST alone (first), privately with ST (second), clips shared in seminar (third)	STs focused teaching on assessment of student learning, responded to prompts before discussion
Frank	Self or other STs	2 STs once	Full observations	Privately with ST, then clips shared in seminar	STs shared reflections with supervisor and peers
Ruth	Self	3 STs once 1 ST twice	Full observations	Privately with ST, then clips shared in seminar	STs identified impact of teaching on students and evidence of learning
Rebecca	Self	1 ST three times	Segments of observations	Privately with ST	ST and supervisor identified focus before videotaping
Scott	Cooperating T or self	5 STs once	Full lessons or observations	Supervisor and ST alone	STs answered reflection questions before discussion
Sandra	Other STs or cooperating T	2 STs twice	Full lessons	Privately with ST, then clips shared in seminar	STs identified focus before taping, then wrote and shared paragraphs about what they noticed on video

you're framing it, and you're framing it in an apparent way. I think there's a certain amount of doubt, even if you say: "I've been a classroom teacher and . . . I've done all this stuff. Please believe me. I'm just saying this to help." Versus move the camera [and] what do you see? (I)

Conversely, Sandra noted from her earlier experiences that "it's difficult and it's stressing for me to take notes while I'm also [taping] because I really want to see more than [just] *the teacher* what's happening in the classroom" (emphasis added) (M2). She therefore decided to take notes while watching the video right after the observation, during which she could also focus on students. Although Sandra saw how this viewing provided the "space and time [that] help with the process of unpacking" (group meeting, 04/11), she consistently asserted how video was only a "small piece in the entire learning process" (group meeting, 10/10), and played a distinctly separate role in that process:

I don't know what the state's going to ask of us, but since we're piloting this, we have to think . . . this is different than a pencil-and-paper lesson plan. What [is it] we want to be able to see—what additional information [do] we want to get . . . that you don't get from pencil-and-paper? (M3)

Similar concerns about taking notes during formal observations sufficient enough to produce thorough and timely reports prompted other supervisors (e.g., Deborah) to either not tape such observations and/or have the cooperating teacher, other student teachers, or project assistants tape. Frank, for example, realized that by having another person tape he could hold off with "break[ing] my 1000-year experience of writing intensive reports" (M2), which he later asserted was "what I do best" and "where the best learning goes" because he highlights the substance of post-observation conferences in his reports (M3). Still, Frank did not want to have the camera in one fixed place because "teaching is the whole thing, all around [the classroom]" (M2) and felt if he were focusing the camera in particular places, he would miss some of the same things his student teachers were missing.

How student teachers were taped. Although supervisors provided a range of rationales for deciding what was taped and who should tape, they all cited the trusting relationship they had with their student teachers when deciding how they should be taped. These choices revealed elements of the personal approaches they took toward supervision as it focused their attention toward the potential emotional impacts of not only being videotaped, but also being observed.

Many sensed their presence in the classroom had as much or possibly a greater impact on their student teachers' performance than taping, despite some of their student teachers' specific concerns about being taped. For example, Amy noted that when she and the camera are there that "it's not necessarily what they'd do on a day-to-day basis, but it's the best that we can do" (I). Carol found most of her student teachers did not want her to tape "because they thought that they would become very nervous . . . and didn't want to mess up if [she] was in the room, especially on the videotape," so she allowed them to tape each other for one formal observation, which they all noticed made them feel much more relaxed (I).

Similarly, several supervisors proposed that the learning climate they were already creating to reduce the "stomach-churning" experience of being observed could be reinforced to reduce their student teachers' resistance to being taped. Sandra, for example, noted how some student teachers' trepidations about being observed or taped dissolved quickly as their peers shared videos in seminar, likening the process to children who "say no, and then they want to see what it's like,

and [when] they look at the other kids, then they're willing to participate" (M2). Frank echoed this idea by defining observations as learning opportunities:

[I tell] my students from day one [that] I don't play "gotcha" . . . so you can screw up badly—it's going to be just a learning situation. "Oh, I'm afraid to do this," nobody's going to hurt you with it. You'll learn from it and so on. So it's the expression I use with them: "I don't play gotcha." And I want them to be that way as a teacher, not to play gotcha with a kid. (M2)

What supervisors learned from creating video. All supervisors realized how shooting video of their student teachers, particularly if they were operating the camera, could interrupt their usual roles as observers and personal approaches toward planning and enacting their classroom visits. Creating video triggered ideas about how to minimize the camera as "an informant that . . . isolates action and ignores context" (Greenwalt, 2008). Some supervisors positioned themselves behind the camera to assimilate its "eye" into their own, coopting it so their student teachers could later see what supervisors clearly saw but sometimes found "very hard to put . . . in words" (Donna [I]). Other supervisors kept the camera's eye at a significant distance from theirs, situating it and the video as "just another piece that adds" (Sandra [M2]) to what they were already doing to support learning, sometimes also separating it from formal observations (Table 2).

The ways in which supervisors negotiated the variety of choices they had to create video revealed how they recognized and interpreted certain assumptions (Smith et al., 2003) about their existing pedagogies. These negotiations fell closer to one or the other end of three continua from integration to "insertion" of video into their processes of observation. First, some tended to see shooting video as way to spend their time during an observation differently, whereas others tended to keep it more intact. Second, some perceived the camera more as a tool to "speak" about what they were noticing or to show them things they might not notice, whereas others perceived it more as a poor substitute that misses things their expert eyes did not. Third, some saw the video as more descriptive, informing their reports with alternate perspectives, while others saw it as more evaluative, providing a relatively limited perspective not particularly valuable to their reports.

Supervisors who tended to experiment with creating video began to let go of their usual role as the sole recorder of the classroom action and take more of an inquiry stance toward their practices. They began to see how the camera could capture valuable elements of that action in ways they might not, even when they were the ones taping. A few supervisors also saw explicit opportunities to share with their student teachers the process of "learning to notice" (van Es & Sherin, 2008) and make sense of meaningful instances on video, as Deborah explained:

[My student teacher] realized that she had one rubric [for a group to share] and the placement on the table created a situation where [one] student's perspective of the rubric was upside down. . . . So she noticed [while teaching] that he was writing upside down but she didn't pick up on *why* he was writing upside down until she viewed the video. I still have goose bumps because it was such a really, really cool . . . without the video *we* never would have come to that revelation. (latter emphasis added) (M2)

Using Video

How supervisors used video to support learning about methods. Many supervisors found their student teachers noticing concrete instances or repeated patterns on the videos that helped them recognize specific challenges they were having with instruction, such as pacing,

questioning, and modeling. Supervisors consistently used these occasions to anchor the messages they either already had or wanted to communicate to their student teachers, often realizing they could do so in much more impactful ways than they could without the video.

Some supervisors found "teachable moments" to send new messages or to resend previous ones in more concrete ways as they watched videos with their student teachers, especially when those messages were linked to observation criteria. For example, Amy initiated conversation with one student teacher who persisted in using a defective prop about "always having to think on your feet" and noted how it was "a perfect example of needing to go right to plan B." Amy also discussed with another student teacher who successfully guided a struggling student in independent work but then only "nodded" to other students how she could "spread the wealth . . . of what she was discussing with the first student" (I). Similarly, when a student teacher saw how a student in the back of her room was not paying attention, Rebecca took the opportunity to remind her that she is often "so eager that she gives them too much" content in lecture format and is "so focused on being in the front that she [can't] see" how students are responding (I).

Other supervisors saw how instances or patterns in videos could help them gauge how messages they sent were being received by their student teachers. For example, Christine noted how a student teacher saw how she "sometimes . . . would get drawn into one student or one table" and was better able to understand her cooperating teacher's suggestion that she "step back and have a consciousness of the whole class" (I). Donna similarly shared how a student teacher realized her need to find the "right types of prompts [to] stimulate student thinking" in groups:

The generic is: "How are you doing? Do you have any questions?" And . . . the more she heard herself saying the same thing over and over again, she realized [that she had] to come up with better ways to walk into a group and help them have a conversation with each other. (M1)

Ruth explained how she not only let the video reinforce a critical message she had sent a student teacher, but also followed up on the exchange to offer her praise:

[She] walked around from table to table thought she was giving feedback, but she was kind of "mm-hmm" and she really wasn't questioning, and she realized that [questioning] would be much more helpful for the students . . . Now she saw it herself. It wasn't hearing it [from me], it was seeing it. I said: "How do you feel about it?" She said: "I see what you mean . . . I see what you mean and it clicked in my head." . . . The next time I saw [her teach] I was sure to tell her: "I really saw how you questioned and the children responded . . . and that was so terrific." (M3)

How supervisors used video to support learning about dispositions. Supervisors shared how student teachers' professional demeanors and attitudes were noticed across a variety of indicators that only video could clearly reveal to student teachers themselves. Although these occasions were also opportunities for learning, they were often more challenging to address given their sensitive nature. All supervisors wanted to maintain the trust of their student teachers and were keenly aware of the range of emotional responses they had to being taped and seeing themselves on tape. These concerns prompted supervisors to use video to more gently build messages about the impacts of their student teachers' behaviors.

Some supervisors shared how student teachers focused quite strongly upon their physical selves, particularly when first seeing themselves on video (e.g., "they were surprised about some of their expressions"; Deborah (M2), "they're just looking at their physical demeanor" (Donna [I]), and "she couldn't stop talking about . . . [how] she didn't like her voice" (Sandra [M3])).

Their recognition of such behaviors often set off dialogue about the dispositions they might represent. One of Frank's student teachers showing clips of her lesson in his seminar was surprised at how she "used her hands all the time," which through conversation they collectively "realized [that] her using her hands was a very positive, energetic thing in the class" and not a distraction to students or a sign of nervousness. Conversely, as a student teacher watched her video with Sandra and a peer, she noticed she kept twirling her hair, saying that "it drove me crazy and must drive the kids crazy." Although Sandra wondered if the video might have prompted her student teacher to exaggerate the impact of this habit because it "didn't seem to interrupt the students," she also noticed her twirling her hair in seminar, suggesting it might have been a sign she was simply anxious about her competency as a teacher (M3).

Other supervisors initiated conversations that revealed how patterns in their student teachers' behaviors on video indicated how they were shaping classroom climate. When a few of Carol's student teachers watched their videos and "realized that some of the things [she] told them they were doing . . . standing in front of the room and not smiling and being so concrete and like a little robot," Carol took the opportunity to revisit her previous comments, which she explained resulted in "an immediate change" in their demeanors the following week (I). Conversely, Rebecca explained how she "want[ed] [her student teacher] to see [on video] how wonderfully calm and focused she remained on the lesson" in a special education class with "very severely challenged students" (M2).

A few supervisors guided student teachers to find and interpret evidence of their dispositions in their videos. For example, Donna noted how she asked a student teacher struggling with one of her classes to compare videos of different class sections to help her see how using a "patient, more open, kinder approach" improved her students' receptiveness to her teaching (I). She also shared how another student teacher was resistant to accept compliments from both his cooperating teacher and her about how he "creates a lovely atmosphere in the room," so she asked him to use his video to characterize the climate he created:

I think I asked him: "If you had to describe the feeling in this room that you see here on the video, how would you describe it?" [He said] something like: comfortable, students are taking risks, asking questions, a pleasant room, warm, and he was exactly right. He had this "a-ha" moment of saying: "Now I get what you [both] have been saying to me—[this] atmosphere . . . created in the room . . . doesn't come automatically." (I)

What supervisors learned from using video. Supervisors identified a range of outcomes supported by using video as a reflective resource, some that served to anchor and others to "build messages" they wanted to send. None of these outcomes (e.g., accelerate a focus on student learning; Deborah [M3]), or emphasize the impact of tone and body language; Angela [M1]) are new to the literature. However, the ideas supervisors shared suggest that not only "carefully scaffolded prompting from facilitators" (Rosaen, Lundeborg, Cooper, Fritzen, & Terpstra, 2008) but also flexible spaces for facilitators to experiment with and make sense of how using video might shape their pedagogies are important for student teacher learning. Many found, for example, that using more specific questions (Table 2, appendix) helped student teachers reflect more effectively about their practices.

Although all supervisors effectively used video to anchor messages about methods, their student teachers' stronger reactions to dispositional indicators on video tended to encourage them to solicit others' perspectives about them before sharing their own. Video activated their learning

(S. M. Wilson & Berne, 1999) as it triggered quandaries about how to offer gentle but effective “in-action” (Schön, 1987) guidance to student teachers and helped them exercise greater stances of inquiry by sharing more dialogue with their student teachers. Still, supervisors who tended to integrate rather than “insert” the creation of video into their pedagogies also tended to exercise greater stances of inquiry to “anchor messages” about methods. They more consistently saw video as a valuable mediator to help reinforce their messages and elucidate what student teachers were thinking about their own and each other’s teaching.

For example, Ruth explained how she wanted to “improve in the questioning” and “didn’t [prompt them] enough” while student teachers shared their videos in seminar because they “all said: ‘Oh, you did a great job . . . oh, it was fabulous’” and “wanted to be very, very positive about it” (M2). She later explained how she experimented with ways to shift their focus from “the output of the teacher” to “the reception of the students” (M3) without dampening their enthusiasm to share. Similarly, using video made Donna feel “more alert, more tuned in, more self-critical and reflective . . . [and] more awake” as it permitted:

an insight into what the student teachers are feeling and thinking, which is very hard to access and remember what it’s like to be someone who’s brand new at developing an expertise. [F]or me it was more of an insight into: “Oh, this is where they’re at, this is what’s on their minds, this is what concerns them,” as compared to coming in with my level of, wherever [that] is . . . and looking at and analyzing the teaching process. (I)

How the Community of Practice Enabled Learning

Supervisors learned more about their pedagogies by externalizing their points of view to a peer audience (Costa & Kallick, 2000; Kuhn, 1992). The act of sharing their explicit experiences with video prompted them to identify and reinterpret their implicit knowledge about student teacher learning (Herrington et al., 2008). Although the intensity of supervisor learning varied, the CoP enabled everyone to arrive at authentic understandings about supervision that highly structured professional development may not support. These understandings were cultivated by letting our focus shift naturally from procedural toward pedagogical protocols, inviting a variety of players outside the group to meetings, allowing supervisors to participate at levels commensurate with their other demands, and offering them structured and flexible one-on-one and collective exchanges.

Supervisors explicitly shared how they felt supported by the three other features of effective CoPs (Wenger et al., 2002): learning in public and in private spaces, discussing the project’s overall value, and finding a comfortable pace at which to participate. Our approach to provide them with greater responsibility for and ownership of their own learning allowed them to slowly, iteratively, and sometimes uncomfortably experiment with and make sense of their choices about creating and using video, privately with their student teachers and publicly with their peers. Many supervisors appreciated this approach as individuals (e.g., “we all have different learning styles”; Sandra [M3] and “I’m . . . evolving in this process myself”; Scott [I]). More importantly, they realized the benefits of participating in a CoP as they learned how to apply what they saw others doing to their own work, as Rebecca explained: “I’ve learned something from you [all] today about what you’re doing and how I can perhaps do this project a little better” (M2), and as they

used the CoP to engage in “sense-making” (Levine & Marcus, 2010) to gauge the overall purpose of the project, as Frank shared:

In all the years . . . that I’ve attended conferences, I always either think the question or say it out loud: “Will this help the students?” This meeting we’ve had today is designed to make better teachers. We go through thousands of things related to paper and statistics . . . and I can never prove, but I always ask: “Will it make a better teacher?” But what we’ve done and what we’re talking about now, the end result will be better teachers and that’s why we’re here, and that’s why this is good. (M2)

The supervisors’ willingness to share and listen to others’ experiences with video was critical to their growth, particularly as it seemed to outweigh the often frustrating setbacks we encountered with a wide variety of procedural protocols. Although many supervisors appeared to initially choose or quickly settle upon video-based pedagogical protocols aligned with their existing approaches, they all began to identify and move beyond the edges of their comfort zones as they increasingly found protocols that others had used more intelligible, plausible, and fruitful (Hewson, 1996) for their own student teachers’ learning. This fluid, complex, and dialogical process that engendered their own professional culture of inquiry parallels the same process of reflection they hoped to cultivate with their student teachers. Supervisors across grade levels, subject areas, and field sites either recognized or began to recognize how creating and using video could help them share at least a bit more of the learning space with their student teachers.

CONCLUSIONS AND FUTURE WORK

This study showed how supervisors can develop greater stances of inquiry toward their practices by creating and using videos of their student teachers and sharing those experiences in a CoP. No matter where they appeared to be on the continuum from integration to “insertion” of more inquiry-driven approaches into their pedagogies, all of them clearly began to recognize how video could better inform how they supported their student teachers’ learning. In fact, we sense some of our participants wanted to engage in a collaborative space with their peers and were willing to learn to interact with video to do so. The trepidations they had about video technologies may have strongly influenced their initial pedagogical choices. More frequent opportunities to practice some procedures (e.g., shooting and accessing video) may have expanded those choices and deepened what they learned in the same amount of time. However, the slow transition of discussions from procedural to pedagogical protocols allowed supervisors to develop the levels of comfort and trust required for their shared explorations of pedagogy.

Our findings might have looked different if our participants had, for example, less P–12 teaching and supervisory experience or more tangential relationships with their field sites. Still, with a strong culture of support, we feel employing a similar CoP approach with any supervisor group can support similar kinds of learning. All members of our established CoP can also now share their experiences with others at the university and their field sites to encourage more diverse collaboration around video. For example, one participant (Donna) who already had strong and diverse connections to her field site watched videos with her student teachers, cooperating teachers, and school principal (Table 2), which others can do to begin building such connections at their own field sites.

As classroom video becomes more ubiquitous across a variety of performance assessments for preservice and in-service teachers, we expect its value as a resource for dialogue and shared learning about pedagogy will also increase. Because video-based dialogue can promote student teachers' reflection about and their supervisors' stances of inquiry toward their own practices, it can powerfully inform and enhance the practices of teachers and teacher educators. Student teachers who draw from conversations fostered by the intellectual activity of video analysis with their supervisors and peers are likely to feel more encouraged to support each other's learning and to retain and expand upon critical habits of mind (Habermas, 1973) throughout their careers.

We are now assisting supervisors in collecting a much wider array of student teacher data (e.g., reflective journals, artifacts from pre- and postobservation conferences and seminar sessions, and surveys and interviews) to better understand how different video-based pedagogical protocols influence the learning of different student teachers and supervisors. We hope others will find our work useful as a roadmap to guide similar projects that best fit the philosophies and programs of their own institutions, particularly if they use video to cultivate reflective spaces that position teacher educators as learners. Such spaces are crucial to ensure the voices of all the players who shape the structure and function of the field-based elements of teacher education programs are clearly heard.

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APPENDIX

Representative Samples of Reflection Questions Used by Supervisors

Question Set One

1. What was the objective of the lesson?
2. What evidence do you have that children were learning?
3. What did you learn about yourself? What did you like about the lesson?
4. What would you do differently next time?

Question Set Two

1. How did you make the content covered important to students?
2. What surprised you? What did you like about what you and your students did? What didn't you like?
3. If someone else saw this lesson, what would they think? What would you want them to know about you or your students to contextualize it?
4. Was the lesson successful? How are you defining success?
5. What approaches could you have taken to improve upon this lesson?
6. What qualities do you have as a person that you see coming through in your teaching? Which ones do you think are supporting learning? Which ones might need work so you can better support learning?

Question Set Three

1. How did you establish the aim of your lesson? How do you know that students were aware of the aim of your lesson?
2. Were there any surprises or unexpected events during the lesson? If so, what and how did you handle them?

3. Looking at the video, what did you notice about the ways you attempted to maintain classroom management?
4. Did you see anything on the tape that you weren't aware of or that you hadn't noticed while you were teaching your lesson?
5. Did you see any mannerisms you have that you weren't aware of? Describe your facial and body language during the lesson. Were you consistently animated and showing interest in students' learning?
6. What did you observe on the videotape regarding the volume, rate, and pitch of your voice?
7. What higher-order thinking questions did you ask?
8. Was there full class participation? How do you know? What did you notice about who was participating?
9. Were you able to meet all the learning objectives? What evidence of student learning do you have? What were students able to do?
10. How will you assess student learning of this lesson in the future?

