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In the Spotlight: Supporting Focus Teachers in Video-Based Collaborative Learning Settings

Nicole Bannister and Fran Arbaugh

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Abstract

In this chapter, we explore the role of the focus teacher—the teacher in the spotlight—in video-based collaborative professional development settings for the purpose of understanding variation in the felt risks of the focus teacher in relation to their learning goals. Using a comparative case study design, this research documented the differential impact of felt risks associated with the spotlight teacher role. This exploratory study contributes insights that help guide the essential support and facilitation work mathematics education leaders must provide for developing, supporting, and sustaining video-based professional learning communities.

Keywords: video clubs, teacher learning, teacher communities, professional development, mathematics education

1. Introduction

In the past decade, video clubs have become a popular means of classroom-based professional development for mathematics teachers. Video clubs are professional meetings that support teachers' collective inquiry into student thinking as it occurs in video excerpts of their teaching [1–3]. Teachers who participate in these clubs bring samples of student work and video clips from recent lessons, share these artifacts with colleagues, and then engage in discussions of teaching and learning.

This type of professional work intentionally orients teachers' interpretations of significant classroom interactions around student thinking, which is a critical step toward teaching for understanding [4–6]. Video clubs offer an effective collaborative structure for supporting,

sustaining, and assessing the growth of developing professional teacher communities in rela-tionship to student learning [7, 8]. Smith described engagement in such activities as "practice-based professional development," where

> *teachers develop the capacity to see specific events that occur in the practice of teaching as instances of a larger class of phenomena. That is, generalities are abstracted from examining particular situations, and these in turn become practical wisdom that will inform teachers' practice.* ([9], p16)

We know from research about video clubs that they have the potential for transformative teacher learning. In their study of video clubs, Sherin and Han argue that teachers, like their students, "need opportunities to construct new understandings and to reflect on their learning" ([1], p163) as opposed to simply being told what to do [13]. The authors found that as a result of video club, what teachers discussed and how they discussed it changed over time—the conversations shifted from issues of pedagogy to more complex concerns related to student conceptions. Discussions progressed from simple restatements of students' ideas to detailed analyses of students thinking. These changes indicate a shift in what teachers' found impor-tant, which suggests "they now valued making sense of student thinking and were willing to discuss such issues in detail and at length" ([1], p174).

Similarly, Sherin and van Es found that over time teachers took on a more interpretive as opposed to evaluative stance toward classroom events occurring on video excerpts [2]. As teachers adopted a more interpretive stance, they began to ground their interpretations with evidence from the video. This is significant, because a shift from giving anecdotal advice to seeking an understanding based upon evidence signals increasing engagement in and with the messiness of teaching. Sherin and Han argued that the learning that occurred during video club promoted development of teachers' professional vision [1], which Goodwin defined as "socially organized ways of seeing and understanding events that are answerable to the dis-tinctive interests of a particular social group" ([14], p606). In the context of video club, the authors found that teachers "learned to attend to particular kinds of events that happen in a classroom and they learned to reason about these events in particular ways" ([1], p179).

1.1. Limitations alongside learning potential

Despite its many benefits and potential for transformative teacher learning, limitations exist within the video club model. Watching a short clip from a lesson is typical of video club. This clip is taken out of the context of both the class period from which it was drawn and the long-range plans teachers have for their students. Although the teachers who are being watched are present, time constraints restrict the ways in which teacher can fill in these gaps for others. It is possible that teachers may have more to say on issues that emerge from watching and discussing the video excerpt but do not have the opportunity to reveal their thoughts.

Moreover, although the video club model has strong potential for advancing collaborative professional learning and making space for developing teacher learning communities in ways likely to transform classroom practices over time, van Es cautions that "simply bring-ing teachers together does not ensure community development" ([10], p182). Watching and discussing video footage of a colleague's classroom is inherently vulnerable work, especially

for spotlight teachers whose classroom video excerpts are viewed and discussed [7]. Even in the best of circumstances it is hard not to be guarded when one's teaching is the subject of discussion [21, 22]. For example, consider the following quote made by a teacher participant in our video club study:

> *I enjoy critical feedback in my room. Like I said, you can come in here anytime and just rip me apart. I would enjoy that. But to put it in a room full of people I really respect, you know? But even if any one of those individually, like Rose, if they came into my room and we were just one-on-one and then they just ripped my lesson apart I would be happy with that. But, for some reason, it's too scary a thought of having them all witness me [fussing] at a girl for trying to measure the hypotenuse.* (James)

In this quote, James expressed the discomfort that many teachers have about sharing classroom video clips with colleagues. As explored in more detail later in this chapter, James felt that being the focus teacher—the teacher in the spotlight—was risky for a number of reasons. At the same time, however, he was able to realize the benefits of volunteering to be the spotlight teacher. This tension reinforces the important role mathematics education leaders play in accomplishing the goals of video club, primarily through skilful, adaptive facilitation of socially complex sites for collaborative teacher learning [11, 12]. In this chapter, we explore these risks and benefits by presenting cases of two spotlight teachers with an eye toward how mathematics education leaders can support spotlight teachers in the context of video clubs.

1.2. The spotlight teacher role and opportunities to learn

Despite possible limitations of the video club professional development model, the potential benefits on teacher learning outnumber the risks, thereby highlighting a need for research on how to support teachers who are the focus of the video clip experiences or how professional development leaders can support the teachers in the spotlight. The strong potential for video club to function as a transformative professional development experience brings the spotlight teacher role into focus for mathematics education leaders. In an effort to shed light on this pivotal role and how to support spotlight teachers, we explore the following question in this chapter:

> *How does the vulnerability associated with the spotlight teacher role impact the spotlight teachers' opportunities to learn from the video club experience?*

2. Methodology

This study took place in context of *Adaptive Professional Development for High School Mathematics Teachers* (Ilana Horn, Principal Investigator), a 6-year design research project situated in a large Northwestern school district in the United States. The professional development (PD) leadership team used learning principles for teachers in the design of program activities for participating teachers, such as prioritizing opportunities and support for teachers to deprivatize their classrooms through viewing and explaining classroom interactions [1].

2.1. Video club professional development context

At the time this study was conducted, this PD project was in its second year of a video club sponsorship. All mathematics teachers from three partnership high schools received monthly invitations to participate in video club. Participation was voluntary, and no one was excluded from participation. Meetings lasted for about 2 hours, with an average attendance of 11 teachers. All participants were encouraged to take a turn as the spotlight teacher, although this was not required for participation. Some teachers were more comfortable with filming their classrooms than others, and so spotlight teachers were ultimately selected based on interest and logistics associated with filming (e.g., parent permission forms, classroom schedule).

After filming the spotlight teacher's class and making them a copy of the footage, one of leadership team members created a 5-to-7 minute clip of student-centered footage for use at the video club meeting. The spotlight teacher's preferences for clip selection were taken into consideration—the spotlight teacher always maintained veto power—and they were provided with a copy of the clip prior to the video club meeting. As a rule, the chosen video clips did not contain footage that featured lengthy turns of teacher talk or instances of student misbehavior, since the goal of video club was to better understand student thinking about mathematics.

The first part of the video club meeting was dedicated to completing the mathematical task that was featured in the spotlight teacher's video and then developing solutions that students might develop in response to the task. The goal of this first discussion was to help teachers deepen their understanding of the mathematical content while developing their knowledge of students' mathematical learning. Next, the spotlight teacher set up the video clip for participants to help provide any necessary context for understanding what they would see in the video clip.

The teachers focused on this question when watching the clip: *Using evidence from the video, what can we tell about what students understand about the mathematics?* A member of the PD leadership team served as facilitator and helped the group follow the established community agreements for safe discussion boundaries, which included implementing the following discussion protocol: (a) a minute of silence after watching the video for teachers to have private think time as well as time to jot some notes to guide their contributions to the discussion; (b) the spotlight teacher has first turn of talk, providing evidence from the video about what the students understood about the mathematical goal of the task; (c) other teachers provide feedback on the focus question. The goal of this discussion was to help teachers develop the kind of formative assessment that productively informs instructional decision-making.

2.2. Participant selection for video club study

Two teachers from the pool of spotlight teachers from the video club cycle volunteered to be in this study, Linda Wesson and James Stone (all names are pseudonyms). Linda and James taught at neighboring high schools in the same school district, were both relatively new teachers (less than 2 years of experience), used the same curricular materials, and had similar course schedules (i.e., ninth-grade math and pre-calculus). We found Linda and James to be

interesting comparison cases because while both expressed eagerness to grow through the spotlight teacher experience, we observed differences in their relative comfort with peer review and discussion of their classroom video footage prior to filming their classrooms for video club purposes. Linda appeared to be much more comfortable than James with this process, and so we theorized that these differences would uncover interesting variation across their spotlight teacher experiences and offer insights related to their differential needs for support.

2.3. Data collection strategy

This study utilizes interview data as the main data source. Audio-recordings, field notes, and lesson artifacts from monthly video clubs meetings in which spotlight teachers participated served as secondary data sources, and were collected to verify findings from the main data source. All data were collected during the video club cycle from the second year of the project's video club program. The overall data collection strategy was to interview the two spotlight teachers at four points in the video club process to capture their perspectives at different stages of the work (see **Table 1** for summary). Nicole, the first author of this chapter, conducted all of the interviews for this study.

As a unique part of this study, participants were asked to watch the video clip on their own in preparation for a semi-structured interview [15, 16] prior to the video club meeting (the *Video Club Preview* interview, 2_VCP_SS). This 2-hour interview was guided by prompts related to the lesson and to the selected video clip, what the spotlight teachers expected their peers to learn at the video club meeting, and their perceived risks associated with being videotaped. An elicited task [15], specifically an additional viewing and debriefing of the video clip with the spotlight teacher, was included as part of the *Video Club Preview* interview.

The two video club meetings for the spotlight teachers in this study were typical with respect to established protocols and routines. Nicole interviewed the two participants informally for about 10 minutes following the video club meeting in which they were the spotlight teacher (the *Video Club Reflection* interview, 3_VCR_SS). Data collection concluded with a final semi-structured *Spotlight Teacher Reflection* interview (4_STR_SS) that was similar in nature, format, and content to the *Video Club Preview* interview, although it did not include an elicited task. In its place, James and Linda were asked to discuss and compare their viewing and debriefing experiences across different parts of the process.

Interview name	Abbreviation	Length of interview	Purpose of interview
Video lesson reflection	1_VLR_IC	10 minutes	Immediate thoughts on videotaped lesson
Video club preview	2_VCP_SS	2 hours	Discuss video lesson before video club
Video club reflection	3_VCR_IC	10 minutes	Immediate thoughts on video club meeting
Spotlight teacher reflection	4_STR_SS	2 hours	Discuss spotlight teacher experience

Table 1. Summary of primary interview data sources.

2.4. Data analysis procedures

This study utilized a comparative case study design, chosen for the purpose of making meaning of the "richly brewed particulars" ([17], p2) of each spotlight teacher's experiences. Data were analyzed by inductive methods of constant comparison [18] for the purpose of understanding the spotlight teachers' felt risks in context of what they found important in their classroom video excerpts and what they wanted to learn through the spotlight teacher experience. Data analyses ended with a cross-case examination for themes within and across cases in order theorize more generally about the experiences and needs of the spotlight teacher [19].

3. Unpacking the spotlight teacher experience

As a preview to the individual case studies presented next, we begin this section with more general findings that emerged during data analysis. Linda and James both attended to aspects of their video lessons that they found problematic, as student engagement in the enacted lesson was different than what they had intended in their respective lesson plans. In addition, both teachers expressed a belief that critical feedback from peers would help them grow their craft. With that said, James and Linda differed in the ways they took up problematic aspects of their video lessons. Linda used the interview discussion prior to video club to gain specificity with the classroom problem she wanted to solve, and then leaned on her colleagues at the video club meeting to help her develop an instructional response. James used the interview discussions to give blow-by-blow assessments of his teaching, which we deemed as overly harsh in many instances. Overall, the findings presented here suggest that Linda and James were differently impacted by the vulnerability associated with peer review and discussion of their classroom video footage, which highlights contrasting individual needs for support within the spotlight teacher experience.

3.1. The case of Linda Wesson: How do you teach kids presentations?

Linda's video footage featured presentations given by her ninth-grade students. The presentation task was adapted from an instructional unit that required complex planning and problem solving related to a hypothetical group expedition [20]. Linda based the success of the lesson on expectations for presenters to explain their group's mathematics and for audience members to "[call] people out on stuff that doesn't make any sense" (*LW: 2_VCP_SS*). Linda was disappointed in the lesson because of problematic mathematical explanations from presenters and lack of engagement by, and respectful press for clarification from, the audience:

> *But a lot of the kids just did not even recognize the fact that four blankets for 24 people was probably going to be less than what you would ideally have. And they were not being critical in that way… Kids were just doing it to try and get out of there as fast as possible, were not really willing to share anything that they had done—which made me wonder what they had done… [T]here are not many people into it, you know?* (LW: 2_VCP_SS).

Linda questioned the mathematical and social merits of presentation tasks in response: "But then what's the point of doing an assignment if everybody does it and doesn't make it so that it makes any sense?" (*LW: 2_VCP_SS*). Linda focused the remainder of the *Video Club Preview* interview on her felt need to teach students how to give presentations and be good audience members. Linda recognized that audience members did not have anything to do in her lesson, and reflected that she needed to teach them "how to care—or why they should care" (*LW: 2_VCP_SS*). Linda hoped her peers would brainstorm specifics around her dilemma with presentations at video club.

When prompted to reflect on her comfort with video review across contexts, Linda noted that it was easier to watch and discuss the video with Nicole because she found it easier to talk one-on-one and also because Nicole had been in her classroom and knew the entire lesson context:

> *I think when it's Video Club I definitely get more embarrassed—like, when I am rambling and making up things…but that's kind of more embarrassing in a big group of teachers than might be more critical.* (LW: 2_VCP_SS).

Despite her potential felt risk for embarrassment, Linda explained her student presentation dilemma at the video club meeting and invited discussion related to strategies that might help students learn to be active listeners. Linda tried some of these strategies in her classroom the following week, noting in the *Spotlight Teacher Reflection* interview that she had been working with her students on presenter and audience member roles through peer exchanges and revision cycles. She was energized by immediate improvements with students:

> *One group did 'Eating at McDonalds' and they found…if all kids at [our school] eat McDonalds 4 days a week—because that's what they thought, that was their test for how many times a week students eat at McDonalds…Then the school spends $23,000 a week at McDonalds…And so it was really interesting that they had this moment of realistic stuff kicking in while they were doing the actual math. But it was really hard for them too. They were like, '23 thousand dollars? Is that right?' And they'd go back and do it again. And I said, 'Yeah, that's right.'…I was like, 'You guys could do it in terms of calories and how much it takes to walk off the calories' and stuff…So, it was a good activity for getting students engaged and for pushing them to the level they are comfortable with.* (LW: 4_STR_SS).

Although Linda was disappointed by student engagement in presentations prior to video club, the peer support offered at the meeting helped her develop classroom conditions that supported the productive student presentations she imagined in her lesson plans.

3.2. The case of James Stone: Why did everything go wrong today?

James' video footage featured the second day of an indirect measurement lesson task selected from his ninth-grade curriculum materials [20]. The task involved using mirrors to figure out the height of different objects posted around the room. James based the success of the lesson on student engagement "every minute of the day," which functioned as a proxy for learning:

> *Mark, even though he's over there, he is engaged…And Donald's just copying stuff down. Jim is learning. Preston is a genius. So, he's fine. The kid in the gray, he's engaged. Donald's not. Now there's one I was disappointed in.* (JS: 2_VCP_SS).

Although James stated that "the lesson was good" and "kids learned," he was initially concerned that the second day of the task "was almost kind of pointless because it was just computation. It was just putting into practice what we had already done" (*JS: 1_VLR_IC*). James revised his thinking in the *Video Club Preview* interview after watching the video footage, noting that the application task helped students solidify their understanding of indirect measurement:

> *I guess there was conceptual stuff going on, because until they put it into practice…I could definitely see some of the kids' eyes light up when they finally realized that what we were talking about in class was applicable.* (JS: 2_VCP_SS)

Although James verbalized a few of his strengths in the interviews, such as excellent rapport with students and inquiry strategies, James gravitated toward criticisms of his teaching. For example, James noticed that he answered his own questions:

> *I felt like in the beginning I pulled information out of the kids…But then there's also times when I am asking a question and I am pointing at the 'w' and that's the answer…[I]t's a hard habit to break. You just want so badly for them to get it, that you tell 'em!—rather than them getting it. You know what I mean?* (JS: 2_VCP_SS)

James scolded himself when we watched this section of the video during the elicited task, saying: "That's not a question, when you're pointing at the answer!" (*JS: 2_VCP_SS*). While James' assessment seemed fair, and his frustration understandable, his self-criticisms also seemed overly harsh at times. For example, while watching his video, James chided himself for being condescending to his students. This ran counter to what Nicole observed during classroom observations-that James is a positive, energetic, and caring teacher.

When prompted to discuss what he hoped to gain from the video club meeting, and as quoted at the beginning of this chapter, James confirmed that he felt a high degree of risk as spotlight teacher for the next video club meeting:

> *I enjoy critical feedback in my room. Like I said, you can come in here anytime and just rip me apart. I would enjoy that. But to put it in a room full of people I really respect, you know? But even if any one of those individually, like Rose, if they came into my room and we were just one-on-one and then they just ripped my lesson apart I would be happy with that. But, for some reason, it's too scary a thought of having them all witness me yelling at a girl for trying to measure the hypotenuse.* (JS: 2_VCP_SS)

James' discomfort escalated during the video club meeting. Even though James felt that "everybody was supportive" and not being critical, he still felt judged: "It's not that I took it personally, but I really took it more of a 'let's all critique James' rather than 'let's all learn from this videotape'" (*JS: 4_STR_SS*). The actual meeting proved overwhelming for James:

> *There was just so much information coming in that a couple times I just shut down and did not even hear. I mean I was staring right in their eyes… and I had no idea what they were saying, because it was just too much.* (JS: 4_STR_SS).

When prompted, James explained that even though watching the tape with Nicole made him nervous, he did not feel like Nicole was judging him, whereas he did feel judged at video club. Even so, James feels that he "was putting that on [himself]", and that the whole video club experience "was very worthwhile, that's all I know. I'm glad I did it" (*JS: 4_STR_SS*).

3.3. Summary

Linda and James both expressed interest in taking on the spotlight teacher role, and both indicated that the experience supported their professional growth. In addition, both teachers observed problems with student engagement when reviewing and reflecting upon their own video lessons. However, James and Linda differed in the ways they took up the problems they identified. After zeroing in on problems with productive student presentations, Linda brought up this issue with her peers at video club and used the meeting as a problem solving space for developing her practice. James was critical of his teaching practices in ways that made taking up these issues with colleagues at video club prohibitively risky for him, although he found peer review with Nicole to be a helpful form of professional development. These findings suggest that Linda and James were differently impacted by the vulnerability associated with peer review and discussion of their classroom video footage, which highlights contrasting individual needs for support within the spotlight teacher experience.

4. Discussion and implications

Although research has found that video clubs can be sites for transformative teacher learning [1, 2], it is clear from the findings presented in this chapter that Linda and James had very different experiences when they were the spotlight teacher in this video club, which we contend impacted their learning. The extent to which they had the opportunity to learn from being the spotlight teacher was also impacted by extent to which they experienced a sense of vulnerability associated with peer review and discussion of their classroom footage at video club. Linda's relative ease with the process promoted her use of the video club meeting as a sense-making space for an emergent problem of practice, thus providing her an opportunity to learn as a result of being the spotlight teacher. On the other hand, James' discomfort with the risks that came along with watching an everyday example of his teaching with a group of colleagues rendered him unable to think clearly during the meeting, thus limiting his opportunity to learn from being the spotlight teacher. So, while Linda and James appeared to have the same experience—the two video club meetings looked very similar from the outside looking in—they actually experienced very different things based on their interpretations of the video club events. The interviews that Nicole conducted for this study allowed us access to Linda and James' inner dialog about being the spotlight teacher and illuminated that Linda and James had very different experiences. This is something that we might not have seen had we simply analyzed data collected during the video club meeting (i.e., analyzed the teacher discussions).

The cases of Linda and James highlight contrasts in individual needs for support for the spotlight teacher experience. Teachers who seem less impacted by risks associated with group review of their classroom video footage, as was the case with Linda, may benefit from reflective work prior to the video club session in order to sharpen their opportunities to learn during the meeting. Teachers who are new to videotaping or who are more sensitive to feeling judged by peer video review, as was the case with James, may need face-to-face support prior

to the professional development meeting since the spotlight teacher may not be physically able to get what they need during the meeting.

It is important to note that James is not alone in his discomfort, as is it normal and typical for teachers to find the experience of peer video review and discussion nerve-racking, especially in the beginning [7]. The study shared in this chapter captured James' perspective at a moment in time when he was relatively new to teaching and brand new to classroom video-taping. While we do not know if James' extreme discomfort eased over time, extant literature supports a dynamic understanding of this possibility [1, 7], thereby motivating mathematics education leaders' continued investment in spotlight teachers who do not immediately present like Linda. Both Linda and James said that one-on-one review with a trusted peer felt safer, which suggests that non-evaluative classroom coaching may be a good place to start this work.

The findings of the study also have in-the-moment implications for teacher leaders who facilitate video clubs. An attuned facilitator might notice the "zoning out" of a spotlight teacher (as James noted happened to him) and pause the action for spotlight teacher to take a minute to reflect on a colleague's comment or to think of a follow-up question to ask. Facilitators can and should pay close attention to the spotlight teacher's affect during the debriefing portion of the video club to ensure that spotlight teachers do not experience a barrage of suggestions or criticisms. Keeping the focus on student learning would also help to mitigate feelings such as what James experienced. Lastly, closely-followed discussion protocols for this type of work, such as those created for use in critical friends groups, can help to create safe learning spaces for spotlight teachers [21].

Although this study analyses the experiences of only two spotlight teachers, their experiences resonate broadly with the lived experiences of teachers who have varying degrees of comfort with video-based collaborative learning. With the assumption that both of the spotlight teachers' experiences are typical, we used the cases of Linda and James to theorize more generally about the importance of tuning into and supporting the varying needs of the spotlight teacher in context of their felt risks, observations, and learning goals. This research contributes insights that help guide the essential support and facilitation work mathematics education leaders must provide for developing, supporting, and sustaining video-based professional learning communities.

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