Using Video to Support Teachers’ Ability to Notice Classroom Interactions

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This article examines how video can be used to help preservice and inservice teachers learn to notice what is happening in their classrooms. Data from two related studies are presented. In the first study, middle-school mathematics teachers met monthly in a video club in which they shared and discussed excerpts of videos from their classrooms. In the second study, a group of preservice high-school mathematics and science teachers used a new video analysis support tool called VAST to examine excerpts of video from their own and others’ classrooms. In both cases, there were changes over time in what the teachers noticed and in how they interpreted these events. This research adds to the theoretical understanding of the role of video in teacher education and also provides direction for the development of new forms of video-based professional development activities.

Video has become an important tool for working with both novice and veteran teachers. This is particularly true in mathematics and science education, where many new video-based and multimedia programs have recently been developed. In some cases, video is used to demonstrate new ways that teachers can explore specific content areas with students (e.g., Hatfield & Bitter, 1994). In other cases, video is used to illustrate particular classroom processes such as discourse or problem solving (Corwin, Price, & Storeygard, 1996). Common to both of these approaches is an emphasis on helping teachers learn what to do in the classroom.
In contrast, this research examines how video can help teachers learn to notice, that is, to develop new ways of "seeing" what is happening in their classrooms. This approach is based on the assertion that the ability to notice is critical in the context of current mathematics and science education reforms that require teachers to make pedagogical decisions in the midst of instruction (American Association for the Advancement of Science [AAAS], 1993; National Council of Teachers of Mathematics [NCTM], 2000). For example, teachers are supposed to pay close attention to the ideas that students raise and then use these ideas as the basis for the lesson-in-progress. This adaptive style of instruction calls for teachers to be skilled at noticing and interpreting classroom interactions. Even veteran teachers who may already be experienced at seeing what is happening in their classrooms need to find ways to focus their attention on new aspects of classroom interactions (Smith, 1996).

This article reports on two related studies that used video to support teachers' ability to notice and interpret classroom interactions. In both cases, changes took place in what the teachers noticed and in how they interpreted these events. This research adds to our theoretical understanding of the role of video in teacher education and also provides direction for the development of new forms of video-based professional development activities.

THEORETICAL PERSPECTIVES

The nature of expertise has been the focus of research for many years. From this research, key features of expert thought and action have been identified. For example, experts have well-structured knowledge systems in their area of expertise, as well as the ability to use that knowledge flexibly (Schoenfeld, 1985). In addition, experts typically make use of automated responses to tasks with which they have become familiar, easing the cognitive load for these tasks (Greeno & Simon, 1988). Experts also have the ability to recognize complexities within situations that they examine (Goodwin, 1994). Thus, rather than focusing on superficial aspects of a task, experts tend to focus on substantive issues and meaningful patterns (Chi, Feltovich, & Glasser, 1981).

In studying teaching expertise in particular, many of these same issues have been investigated. For example, a great deal of research has explored the organization of teacher knowledge and how this knowledge is accessed (Ball, 1991; Ma, 1999; Putnam, 1987; Sherin, 2002). Researchers have also investigated the ways in which teaching acts become automated for expert
teachers as they develop a set of routines that are used repeatedly with students (Leinhardt & Greeno, 1986; Leinhardt, Putnam, Stein, & Baxter, 1991). Less research, however, has focused on what it means for expert teachers to be able to recognize significant features of the context in which they work. It is here that we focus our research. Specifically, this work examines what it means for teachers to “notice classroom interactions” and how video might be able to support this process.

Noticing Classroom Interactions

As previously described, the basis for this research is the claim that the ability to notice classroom interactions is a key feature of teaching expertise. But what, precisely, does this mean? In van Es and Sherin (2002) related research was synthesized and three key components of teachers’ ability to notice were proposed. First, noticing involves identifying what is important in a teaching situation (Frederiksen, 1992; Leinhardt et al., 1991). The classroom is a complex environment with multiple interactions occurring at the same time. A teacher cannot possibly pay equal attention to all that is happening. Instead, teachers must be selective in determining where to focus their attention. In essence, teachers must be able to assess a situation and determine which interactions are particularly significant.

Second, noticing involves making connections between specific classroom interactions and the broader concepts and principles of teaching and learning that they represent. Experts in a variety of fields, from chess to physics, have been found to represent complex problems in terms of the larger principles that are at stake (Chi, Glaser, & Farr, 1988). The same can be said for expertise in teaching. Specifically, the idea is that noticing involves, as we described, not only recognizing that “This is significant;” but also, considering “What is this a case of?” (Shulman, 1996). In other words, it involves defining the broader issues that are represented in a given situation. For example, a teacher might identify an interaction as having to do with equity, or classroom norms, or discourse. In doing so, teachers come to recognize important relationships among events that occur.

Third, noticing involves teachers using what they know about their specific teaching context to reason about a given situation. Prior research has found that as individuals gain expertise within a domain, they become more adept at making sense of situations that occur within that domain (Chi et al., 1988). For teachers, this means that noticing classroom interactions is tied to the particulars of the environment in which they teach. Thus, teachers’ ability to notice develops in terms of the subject matter and grade level they
teach, in terms of the culture of the school environment and of their classrooms, and in terms of the social and cultural backgrounds of the students with whom they interact.

Together, these three components point to the complexities involved in noticing classroom interactions. Teachers must identify what is important in a situation as well as the broader concepts that the situation represents. And they must use knowledge of their particular students, school, and subject matter to make sense of these situations.

The Role of Video in Developing the Ability to Notice

If one believes the claim that the ability to notice is a key feature of teaching expertise, then the next question to ask is how educators and researchers might be able to support the development of this ability. Clearly, one’s teaching experiences play a critical role in the development of the ability to notice. Yet, we believe that video can also play a significant role in helping teachers learn to notice.

Video has been used in teacher education since the 1960s when portable video equipment first became available (Wang & Hartley, 2003; Willis & Mehlinger, 1996). A variety of different uses have been developed since this time, from micro-teaching, to interaction analysis, to video-based cases (Sherin, 2004). Across these different uses, one goal has remained the same—to provide teachers with a kind of access to classroom interactions that is not possible during the act of teaching itself. Specifically, video offers a permanent record of classroom interactions. Thus, teachers do not have to rely only on their memory of what occurred. Instead they can view a video, multiple times if they wish, examining what took place from different perspectives. In addition, researchers have argued that teachers are often constrained by their familiar classroom routines (Putnam & Borko, 2000). Viewing video, however, provides teachers with a very different kind of experience, one in which the goal is reflection rather than action. By allowing teachers to remove themselves from the demands of the classroom, viewing video may prompt teachers to develop new ways to examine what happens in their classrooms. In what follows, two contexts are examined in which video was used to help teachers reflect on and learn more about teaching.
METHODS

Data for this article come from two related studies. In the first study, four middle-school mathematics teachers participated in a year-long series of video club meetings. In these meetings, the teachers met monthly for one hour to watch and discuss excerpts of videos from each other’s classrooms. The excerpts were generally five to seven minutes in length and came from whole-class discussions in the teachers’ classrooms. The first author facilitated the meetings using open-ended questions. For example, after the group watched a video excerpt, the facilitator typically initiated discussion by asking, “What did you notice?” Following this, the teachers would raise a variety of different issues that the group would discuss. The facilitator also prompted the teachers to elaborate their statements concerning what stood out to them in the video. A total of 10 meetings occurred across the year. Each meeting was videotaped.

In the second study, six preservice teachers working towards certification in secondary mathematics or science participated in three hour-long sessions, facilitated by the second author, in which they used the software Video Analysis Support Tool [VAST] (Sherin & van Es, 2001) to examine video of their own and others’ teaching. VAST allows teachers to import digitized video from their own classroom and provides a series of scaffolds to foster teachers’ analysis of this video (Figure 1).

Figure 1. The VAST software
Specifically, teachers are prompted to analyze three aspects of their videos: (a) student thinking, (b) the teacher’s roles, and (c) classroom discourse. Furthermore, within each of these areas, teachers are asked to respond to a particular series of questions: (a) What do you notice? (b) What’s your evidence? (c) What’s your interpretation of what took place? and (d) What questions do you have about what occurred? VAST was designed to provide teachers with a guide that could help them to make sense of complex classroom interactions as well as to explore multiple explanations for events that they noticed. (See van Es & Sherin, 2002, for a more detailed description of the VAST software.)

Prior to and following participation in the VAST sessions, the preservice teachers wrote narrative essays in which they discussed a videotaped lesson from their own classroom. The earlier essays were written approximately one month before the first VAST session, and the later essays were written approximately one month following the final VAST session. This writing assignment was required of all teachers in the certification program, a total of 12 preservice teachers. Thus the data consisted of two essays (early and late) from each of the six preservice teachers who had explored VAST as well as two essays (early and late) from six other preservice teachers in the same certification program who had not used the VAST software. Prior to the beginning of the study, but following the writing of the first essay, the preservice teachers were randomly assigned to one of the two groups.

Data Analysis

The data were analyzed using an iterative and grounded approach. Fine-grained analyses of videotapes (Schoenfeld, Smith, & Arcavi, 1993) formed the basis for much of the work. Furthermore, techniques designed by the Video Portfolio Project (Frederiksen, Sipusic, Sherin, & Wolfe, 1998) were used to analyze the ways that the teachers discussed and reviewed video excerpts.

Specifically, videos from all 10 video club meetings were transcribed. Two researchers then divided the transcripts into segments according to when a new topic of conversation was raised. Agreement between the researchers on this segmenting of the transcripts was 91%. Next each of the resulting segments was coded in terms of the general topic that was being discussed: (a) pedagogy, (b) student thinking, (c) discourse, (d) mathematics, and (e) other. Initial agreement between the researchers was 87% percent; points of disagreement were then reviewed together until consensus
was reached. Finally, those segments relating to pedagogy and student thinking were reviewed further to examine the ways in which the teachers’ comments about these two topics changed over time. These areas were selected for additional analysis because pedagogy and student thinking were the topics raised most frequently for discussion in the video clubs, 35% and 42% of the total time respectively. (See Sherin & Han, 2004, for more information concerning analysis of the video club data.)

In the VAST study, two researchers, the second author and another researcher, coded the narrative essays submitted by all 12 teachers. Specifically, the essays were analyzed for the extent to which the preservice teachers (a) highlighted particular events that occurred, (b) paid attention to specific or general evidence from the video, and (c) took a descriptive, evaluative, or interpretive stance toward discussing what had occurred. The essays were coded blindly and inter-rater reliability was 85%. Differences between the two coders were discussed and resolved through consensus. As a result of this coding, the researchers identified differences within the early and late essays of each individual teacher along these three dimensions. In addition, the researchers examined the extent to which changes that were observed in the essays of those teachers who participated in the VAST sessions were also observed in the essays of the six other teachers in the same teacher education program but who did not participate in the VAST sessions.

Together, these two contexts allowed us to examine different but related ways in which video can support teachers’ ability to notice and interpret classroom interactions. Furthermore, they compliment each other by differing in the grade level of the participating teachers as well as in their years of prior teaching experience.

**RESULTS AND DISCUSSION**

Teachers in both studies developed new ways of noticing and interpreting classroom interactions. In particular, two kinds of changes took place. There were changes in what the teachers noticed as they discussed the video excerpts, and there were changes in how the teachers discussed these events.

**A Shift in What the Teachers Noticed**

Changes occurred in what the teachers noticed as they examined videos from their classrooms over time. These changes, however, were somewhat different between the two studies. Teachers in the video club group shifted
from a focus on pedagogy to a focus on student thinking; teachers in the VAST study became better able to identify significant features of the video segments rather than focus chronologically on the full range of events that took place.

**Video club study: From pedagogy to student thinking.** The teachers in the video club began the year by focusing on what the teacher in the video was doing. For example, in the first video club, the teachers initiated a discussion concerning the mathematical topic that the teacher in the video had decided to pursue. "You know, as teachers [we] make decisions right on the spot about explore it or don't explore it." Similarly, the group discussed the ways that the teacher had responded to a group of students that were working together. "I wanted them to discuss it...I wasn't going to answer him. I wanted his group to do it." Pedagogical issues such as these dominated the conversation, brought up repeatedly by the teachers. Specifically, in the first video club, the teachers raised pedagogy as a topic of discussion 57% of the time.

Over the course of the video clubs, however, the focus of the teachers' attention shifted from the teacher in the video to the students, and, more specifically, to the mathematical thinking of students. For example, in one of the later video club meetings, the teachers compared two different methods that students offered for estimating the number of people in an aerial photograph of a crowd. "[Julie's idea] was kind of the opposite of what [Robert] said, and that is that all dots are uniformly placed. So taking a small sample...wouldn't make you any less accurate than the larger [sample]." This approach to viewing video became quite common for the teachers and they regularly discussed in detail how students talked about and worked with mathematical ideas. Specifically, in the final video club, the teachers raised issues related to student mathematical thinking 86% of the total time (as compared to 14% of the total time in the first video club). While pedagogy remained of interest to the teachers, they raised it as a topic of discussion much less frequently in this final video club than they had initially, only 14% of the time.

In discussing their experiences in the video club, all four teachers commented on this shift in focus towards attending to student thinking. For instance, one teacher described it in the following way. "[At first I was thinking] 'Oh, I think I should have said that or done this.' As I was watching though, I thought a lot about... just following the ideas of different kids." In addition, the teachers indicated that they not only had become aware of their new focus on student thinking, they also recognized the value of this shift in terms of their teaching practices. As another teacher explained, "It's
helped...to make me more aware of the specific things that are being said in discussion.” This shift is clearly aligned with recent reform recommendations that encourage teachers to pay close attention to the ideas that students raise (AAAS, 1993; NCTM, 2000). Moreover, researchers have shown that examining student thinking can lead to valuable changes in teachers’ instruction and can help teachers to effectively implement the goals of reform (Franke, Fenemma, & Carpenter, 1997).

**VAST study: Developing the ability to identify significant interactions.** In the VAST study, a different kind of shift occurred in what the teachers noticed. Rather than a change in topic, there was a change in the kind of events that were noticed and discussed by the teachers. Early on, the teachers typically identified all of the events in the video segment as noteworthy. Over time, however, they became more discriminating in what they noticed as important. Specifically, the preservice teachers’ initial analyses consisted largely of describing each event that appeared on the video. For instance, one essay started as follows, “The morning began with a test and after a 10-minute break, we began to set up for the discussion of ‘number families.’” Another essay chronicled a class discussion by listing the order in which members of the class participated and the comments that were made. "I called on a particular student, Ian, instead of waiting for someone to volunteer. I asked Ian what graph his group chose, and he answered that they had chosen Graph D. I asked him why they chose that graph. After a pause and some giggles from his other group members, they admitted that they had not formed their reasons. At that point, a student from another group, Kenny, raised his hand and said that he picked Graph C…” All six of the essays written by the teachers who used VAST wrote literal descriptions of the events as they occurred in the video segment for at least half of the essay. This was also the case for all six of the teachers who did not use the software, which shows that both groups of teachers had similar orientations for analyzing video at the beginning of the study.

In contrast, later in the year, the essays of those teachers who had worked with the VAST software became more organized around particular events that they identified as noteworthy. No longer were their analyses simply chronological. Instead, the preservice teachers were now able to identify significant features of teaching and learning and focus their analyses in those areas. In some of these essays, the teachers divide their analyses into several sections, with each section focused on a particular aspect of teaching and learning. For instance, the headings for one teacher’s sections were: (a) classroom discourse and questioning, (b) student mathematical ideas, and (c)
engagement and student learning. Within these sections, the teacher identified specific events and explored them in detail. For example, in the section on student mathematical ideas, the teacher wrote about students’ confusions concerning the distributive law \[a (b + c) = (a * b) + (a * c)\]. He explained that students had misapplied the law, provided evidence from the segment to show this confusion, and explored how students’ understanding of this concept developed throughout the rest of the clip.

Similarly, in another essay a teacher focused on specific aspects of classroom discourse and the teacher’s role in this process. Specifically, the teacher wrote, “The teacher’s role in the discussion appeared to be (a) to ensure that students knew what was on the graph, (b) to find out if they knew what was happening to the populations—to elicit student thinking, (c) to ask the appropriate questions to advance the lesson, and (d) to link student observation to previous learning about energy pyramid.” Here, the teacher is noting what stood out to her in terms of her own actions as the teacher during a whole-class discussion.

These examples illustrate an important shift in what was noticed by all six of the teachers who had worked with VAST prior to writing their second essay. They came to organize their essays around significant aspects of teaching and learning, rather than providing literal descriptions of the events as they occurred. This shift represents the development of a key component of noticing and has been identified previously by researchers as an important aspect of teaching expertise (Berliner, 1994). In particular, this points to the teachers’ increasing understanding of the principles of teaching and learning and of their ability to bring this knowledge to bear on analyses of classroom interactions (Cushings, Sabers, & Berliner, 1989; Hanninen, 1985). Moreover, in almost all cases, the aspects of teaching that were examined reflected the goals of mathematics and science education reform (e.g., as shown in the examples in which teachers examined student mathematical thinking and the teacher’s role in classroom discourse).

In terms of the six teachers who had not worked with VAST, only two organized their later essays in this way. This suggests that while such a shift in noticing may occur naturally in some cases, VAST appeared to support, and possibly to accelerate, this process. In sum, the findings from our work suggest that both the video club setting and the VAST software scaffolded teachers to examine principles that are key to reform pedagogy which they then used to organize their analyses of classroom situations.
A Shift in How the Teachers Discussed What They Noticed

The previous section discussed changes that occurred in the topic of the teachers’ comments. Here a related issue is examined; namely, the changes in the ways that the teachers discussed these topics. In particular, two changes took place in how the teachers discussed what they noticed. Teachers in both studies moved from an evaluative to an interpretative approach to the analysis of video. Furthermore, their analyses became more evidence-based over time.

From evaluation to interpretation. The teachers in both studies began with an evaluative stance toward events that occurred during instruction. In the video clubs, for example, it was common for teachers to ask, “What should I have done?” or to suggest an alternative pedagogical approach that the teacher on the video might have used. Specifically, 75% of the teachers’ comments about pedagogical issues in the first three video clubs reflected an evaluation of what took place.

Similarly, the early essays of all 12 teachers in the VAST study focused on what had and had not “worked” and on what they might want to do differently next time. In one essay a teacher wrote “I wish I had handled much of this discussion differently,” and another noted, “I could have ... done a better job of enforcing rules about talking in turn and listening to others.” These comments reflected a clear evaluative stance among both the VAST and the non-VAST teachers. The preservice teachers primarily described the events as they unfolded over time, and then followed these descriptions with evaluations. They mentioned both strengths and weaknesses in the techniques they employed, though it was often unclear on what basis they were making these judgments.

Later in the year, however, both the video club and VAST teachers focused more on interpreting what occurred rather than simply evaluating the teaching and learning that was evident in the video. Instead of focusing immediately on the effectiveness of a particular pedagogical approach, the goal seemed now to be to understand the influence of that approach on the learning that occurred. Specifically, in the last three video club meetings, 75% of the teachers’ comments about pedagogical issues now consisted of detailed explanations of the teaching strategies used, rather than of the evaluative stance that dominated earlier discussions. Similarly, in the VAST study, all six of the teachers who used the software adopted an interpretive stance in their later essays. In contrast, only two of the six teachers in the group who did not have experience with VAST took on a more interpretive stance in their later essays.
Moreover, in both studies, when evaluation of a particular situation did take place, it was now preceded by careful interpretation of what had happened. For instance, in the second to last video club meeting, the teachers had an indepth discussion of two methods students had used to estimate the total number of dots in a densely-filled rectangle. Following this discussion, one teacher commented that he was not sure if the entire class had been able to follow the different ideas. The group then brainstormed questions and explanations that the teacher might have offered in order to help the class follow this idea (e.g., “Are the dots uniformly placed in the rectangle?”). Their suggestions were closely tied to specific differences in the two methods, hoping to illuminate these differences for students. Thus, their evaluative comments were based on the analytic discussion that had come first.

Along the same lines, when the VAST teachers made evaluative comments in their final essays, these evaluations were based on prior interpretations of what had occurred. For example, one teacher’s essay explained that he noticed students were not engaged in the discussion. He referred to specific events in the video to illustrate the students’ lethargy, followed by an interpretation of why students were not participating—the abstract nature of the question they were asked required a great deal of concentration which was difficult to sustain after a long day in school. He followed this analysis by offering two specific techniques he might have employed to help the students focus: (a) provide a more concrete setting to scaffold their learning and (b) organize the students in groups so they could collaborate with one another to solve the mathematical problem. This illustrates the way in which the VAST teachers’ comments concerning instructional techniques they might want to use in the future had become based on their interpretations of what took place, rather than on a quick assessment of whether an activity went well or not.

This change represents another important shift along the path to teaching expertise, and one that is closely tied to the goals of reform. Prior research has found that teachers are often quick to judge events they notice without exploring why these events happened (Copeland, Birmingham, DeMeulle, D’Emidio-Caston, & Natal, 1994). In contrast, as other researchers have also noted, a focus on interpretation allows teachers to understand what has happened and to then use these understandings to inform their decisions of how to proceed (Hammer, 2000; Putnam & Borko, 2000; Sherin, 2001). Furthermore, an interpretative focus reflects an understanding of the notion that teaching involves discovery and inquiry on the part of the teacher, as he or she works to uncover the meaning of ideas (Ball, 1993; Hammer, 1997; Heaton, 2000).
An increase in evidence-based comments. In addition to adopting an interpretive stance, the teachers also came to base their interpretations of what had occurred in evidence from the video. Teachers in both studies moved from talking generally about the videotaped lessons to referring more frequently to specific events in the video, using these specific references as a resource for discussing particular ideas. For example, in the later video clubs, it was not uncommon for a teacher to ask to replay a segment of video so that he or she could more precisely discuss what a student had said. Furthermore, the teachers’ comments often related to a specific statement by a student that needed further examination such as “Wait a second. Is he saying the answer is 65? ...Why would he say that?” Similarly, the preservice teachers initially talked broadly about what they saw happening in the classroom, stating, for example, “The students are really thinking in this lesson,” without being explicit about what in the video indicated “thinking” on the part of the students. Over time, however, all six teachers who used VAST began to refer to specific student actions and comments in the video as representing “student thinking” and as illustrations of their claims. In contrast, only one of the six teachers who did not use the software became more specific in her analysis.

This use of evidence is important for several reasons, two of which will be mentioned here. First, as they used evidence, the teachers made connections between the events that they saw and key ideas of teaching and learning. As discussed earlier, this is thought to be a key element in the ability to effectively notice and interpret classroom interactions. Specifically, teachers in the video club found that watching video helped them to develop a concrete vision of what a “community of learners” can look like in practice. “I got to see this culture of kids knowing that you expect them to interact and bounce off each other’s ideas and they aren’t going to just look at you for the answer all the time. That’s [a community of learners.]” Similarly, teachers in the VAST study developed more explicit definitions of discourse and inquiry. For instance, one teacher wrote,

What occurred during the lesson...was movement in the direction of real discussion about content. Students affirmed and corrected and disagreed with one another throughout the conversation, usually without addressing the teacher directly. The role of the teacher was to restate and interpret student responses and to ask questions that would keep the discussion moving to a conclusion.”

Here, the teacher identified specific student and teacher actions as a way to define what she meant by a “real discussion.”
Second, basing one's comments in evidence from the video seemed to prompt the teachers to more clearly articulate and justify their claims. Thus, in the example above from the VAST teacher’s essay, specific evidence from the video is used not only to explain what the teacher means by a discussion. It is also used to provide evidence that a discussion had taken place in her classroom. Similarly, the use of evidence in the later video clubs allowed teachers the opportunity to offer different interpretations of the same event, providing a context for indepth discussion and debate among the group. Such discourse is thought to be an important component of a successful teacher learning community (Grossman, Wineburg, & Woolworth, 2001; Wilson, Miller, & Yerkes, 1993).

IMPLICATIONS

The results of this article illustrate different ways that video-based professional development can provide teachers with opportunities to learn. Specifically, an argument is made for the importance of teachers’ ability to notice and interpret classroom interactions, and the ways in which teachers in two studies developed expertise along those lines are illustrated. The teachers not only began to notice new kinds of events as significant, they also began to talk about what they noticed in a more interpretative and evidence-based manner. Furthermore, in describing the changes that occurred in what and how teachers attended to video segments, we emphasized that these changes have been found by prior research to support the implementation of mathematics and science education reforms.

An important next step in this research is to examine how developments in teachers’ ability to notice classroom interactions through video influence teachers’ ability to notice classroom interactions during instruction. In ongoing work, we are currently examining the influence of teachers’ ability to notice on their classroom instruction and subsequently on students’ learning. Though the results are preliminary, they suggest that video-based experiences can prompt teachers to identify significant interactions that occur in the moment of instruction, particularly those related to innovative student ideas that arise in class. Moreover, when such events take place, teachers are more motivated and better equipped than before to try to make sense of what is being said and done.

While video has played an important role in teacher education for over three decades, more research is needed to understand the affordances of video for teacher education as well as those aspects of teacher cognition that are influenced by the viewing of video. This research takes an important
step in that direction by examining how video can help teachers learn to notice—learn to notice new aspects of classroom interactions and learn to develop new techniques for making sense of these interactions. Furthermore, this research suggests that an important consideration in the design of new video-based programs for teachers is the extent to which such programs provide opportunities and structures within which teachers can develop their ability to notice.

References


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