Using Video Self-Analysis to Improve the "Withitness" of Student Teachers

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Abstract

Although video self-analysis has been used for years in teacher education, the camera has almost always focused on the preservice teacher. In this study, the researcher videotaped eight preservice teachers four times each during their student-teaching internships. One camera was focused on them while another was focused on their students. Their perspectives both before and after watching DVDs of themselves and their students' responses provided the qualitative data for this study. Findings indicate that the participants strongly believe in the effectiveness of video selfanalysis to help them notice classroom interactions and improve their "withitness." Specific benefits included seeing themselves from the students' perspective, reducing annoying mannerisms, improving classroom management, becoming better able to notice how well students understood, and becoming more aware of their reflection-in-action. (Keywords: video, withitness, noticing, teacher education, self-analysis)

n a recent New Yorker essay, Malcolm Gladwell (2008) lamented that our school system has a quarterback problem. That is, like NFL scouts who can't really predict which college quarterbacks will make it in the pros, we can't really tell who the great teachers will be until they're in the thick of a classroom full of students. Gladwell posited that, like a great NFL quarterback, a great teacher needs the gift of noticing, or what some have called "withitness." Coined by Jacob Kounin (1970), withitness has been viewed as a vital disposition of effective classroom managers. A teacher with this ability has a keen awareness of what's going on in her classroom, notices

subtle signs of understanding or confusion, responds personally and directly to individual students, and makes students aware that she knows what's going on as though she had the proverbial eyes in the back of her head. Many teacher education programs, including the one in which I teach, evaluate withitness. We obviously believe that it is important, but how do we teach it? Is it even something that can be taught, or is it an innate attribute that some have and some never will?

This study was an attempt to learn more about withitness from the perspective of eight preservice teachers from a small midwestern private college through the use of video self-analysis. Through this research, I sought a clearer understanding of the effectiveness of video in helping them become better noticers, and consequently, better teachers. The research questions that guided data collection and analysis included the following:

- What are preservice teachers' perceptions of the value of video self-analysis?
- Can video self-analysis of their teaching and their students' responses help preservice teachers become better noticers and interpreters of classroom interactions while they are occurring? Can they improve their withitness?
- How might video self-analysis best be used in teacher education programs to help preservice teachers improve how well they notice classroom interactions? Should teacher education programs include video self-analysis as part of their requirements for preservice teachers?

Literature Review

Emerging from Kounin's (1970) research involving video analysis of teachers, withitness was described in terms of

a set of specific teaching skills. Most notable among these skills were continuously surveying the class, noticing the behavior of each individual student, being able to attend to two events simultaneously, and taking corrective action before any potential problem got out of hand. Kounin (1983) later explained that the way students responded in the classroom hinged on whether or not the teacher demonstrated that she knew what was going on, "that she had eyes in the back of her head" (7). Teachers with withitness regularly monitored their classrooms, scanned the room continuously, kept track of what was going on, and "let their students know that they were 'with it'-aware of what was happening" (Good & Brophy, 2008, 112). Although one might think that withitness is an innate personality trait, Charles (1996) suggested that it could be learned and improved. Marzano (2003) agreed and even described three steps for enhancing withitness: reacting immediately, forecasting problems, and observing master teachers.

Since Kounin's (1970) work pioneering the use of video to analyze teacher characteristics, including withitness, other researchers have also incorporated video in classrooms for somewhat more diverse purposes. One purpose that has met with varying degrees of success during the past 40 years has been for self-analysis by preservice teachers in teacher education programs. In what now seems an ancient analysis of several research studies on the use of video in teacher education, Fuller and Manning (1973) concluded that preservice teachers' viewing of video of their own teaching was often stressful, increased the accuracy of self-perception, increased the receptivity of feedback, and usu-

ally resulted in focusing on themselves rather than on their students. More recent studies have generally shown that preservice teachers viewed using video for self-analysis of teaching as beneficial. Wu and Kao (2008), for example, concluded that all 36 preservice teachers in their study noted that it was helpful for them to watch videos of their teaching. Similarly, 100% of the 48 preservice teachers in Downey's (2008) study reported that watching DVDs of their teaching was a valuable experience.

Several researchers concluded that one specific benefit of using video for self-analysis is its permanence, which allows referring to the video multiple times for clarification or additional perspective (Calandra, Brantley-Dias, & Dias, 2006; Brophy, 2004; Haefner Berg & Smith, 1996; Sherin & van Es, 2002, 2005; van Es & Sherin, 2002). Another reported benefit is that watching video of their own teaching helped teachers see themselves from a different vantage point (Downey, 2008; Dye, 2007; Haefner Berg & Smith, 1996; McCurry, 2000; Shepherd & Hannafin, 2008). This more detached view, according to Dye (2007), provides preservice teachers the opportunity to "revise their internal representations of their own performance, thus more accurately identifying their own performance gap" (26). Other researchers have encouraged preservice teachers to facilitate "explicit noticing" in order to "embrace the dissonance" between

what they recall from memory and what they see in the video, thereby jarring complacency that then leads to learning (Rosaen, Lundeberg, Cooper, Fritzen, & Terpstra, 2008, 356-358).

Typically, studies involving video self-analysis have used one camera, which obviously has limitations. Brophy (2004) explained, "The video camera looks in only one direction at a time. And when the camera is focused on the class as a whole, it can be difficult to see or hear what individuals or groups of students are doing" (11). Although Shepherd and Hannafin (2008) recognized that video helped preservice teachers identify students who had been overlooked during teaching, participants in their study noted difficulties in seeing students or their faces due to placement of the one camera that was used. The researchers also acknowledged the limitations of video evidence that allowed only limited field of vision, with the result of "often missing unrecorded facial expressions, deskwork, and student comments" (35). Haefner Berg and Smith (1996) concluded that using two cameras, one focused on the teacher and one on interesting classroom interaction, would be ideal.

A promising direction of some research has focused on using video selfanalysis to help teachers learn to notice (Brophy, 2004; Nicol & Crespo, 2004) or "develop new ways of 'seeing' what is happening in their classrooms" (Sherin & van Es, 2002, 1). Although Sherin

and van Es (2002) do not use the term withitness, they nevertheless propose aspects of noticing that reflect Kounin's (1970) characteristics of withitness. These aspects include identifying what is important in the classroom situation, making connections between specific interactions and broader teaching principles, and using contextual knowledge to make sense of classroom interactions. For teachers to make pedagogical decisions, they need to be skilled in noticing what goes on, in making sense of it, and then in adapting their instruction accordingly on the fly (Sherin & van Es, 2005). Schön (1987) wrote of this process as reflection-in-action, implying that, like a jazz musician feeling the direction of the music and improvising, good teachers simultaneously reflect on what is taking place and modify their actions in the moment.

Methods

Participants

Eight preservice teachers completing their student-teaching internships during the spring 2009 semester agreed to participate in this study. I selected them with the purpose of including both elementary and secondary placements and to ensure a diverse range of students. Each participant signed an agreement and helped secure student and parent permissions. I videotaped each preservice teacher four times, with the exception of Sophie and Heather,

Table 1. Preservice Teachers and Their Placements

Preservice Teacher	School	Participating Class	School Demographics					
Sharon								
First placement	Private Suburban Elementary	Fifth Grade	510 students; 79% White					
Second placement	Public Suburban High School	Honors Algebra	1,500 students; 57% White, 28% Black					
Jack	Public Suburban Elementary	Fifth Grade	660 students; 85% White					
Clarissa	Public City High School	Intermediate Spanish	3,200 students; 83% Hispanic					
Sophie	Public Suburban High School	ESL	4,000 students; 86% White					
Heather	Public Suburban High School	Modified Algebra II	1,900 students; 65% White, 22% Black					
John	Public Regional High School	Accounting	2,400 students; 87% White					
Mary	Public City Elementary	Third Grade	720 students; 46% White, 44% Hispanic					
Audrey	Public Suburban High School	English	1,740 students; 78% White, 19% Black					

whom I taped only three times because they student taught out of the area for the first 7 weeks of the 17-week internship. Table 1 lists preservice teachers and their respective placements. All names used are pseudonyms.

Data Collection

For each recorded lesson, I visited the classroom and focused on the preservice teacher with one camera while aiming another camera, set to wide angle, on the students, normally from the front of the room. Immediately after each videotaped lesson, I interviewed the preservice teachers using a common set of guiding questions (see Appendix A, p. 108). They also then completed a rating scale (see Appendix B, p. 109) as a means of assessing various aspects of their teaching and their students' responses. For the second and subsequent visits, the preservice teachers completed the rating scales verbally, and I asked them to tell me what they were thinking as they scored each item. I recorded and transcribed all interviews.

Typically on the same day of videotaping, I produced a separate DVD from the recording of each camera and also saved computer copies of each video and audio file. I made the DVDs available to the preservice teachers the same day; however, they normally did not pick them up until their Monday seminar on campus. I decided to use a DVD format to ensure high-quality full-screen viewing to maximize the opportunity to notice

what could be noticed. This format was also convenient for watching on a DVD player or computer. After watching the videos, the preservice teachers wrote responses to nearly the same set of questions and also completed the same rating scale that was used before viewing. They e-mailed to me these responses, which I then saved, coded, and printed. The participants also e-mailed to me their weekly written reflections, which were required for the student-teaching seminar. I used these reflections as a means of triangulating data to confirm or disconfirm my findings.

It should be noted that, although I had previously taught the studentteaching seminar, I was not teaching this semester. I also informed the participants that I was not evaluating them, nor would I share any data for this purpose.

A final key data source was a focus group interview held with all the participants once their internships were completed. To guide this interview, I used a prepared set of guiding questions (see Appendix C, p. 110), but as I had hoped, their comments spurred one another to remember, reflect, and share their experiences. At this time, I also discussed some initial findings and sought my participants' input in order to develop and saturate my preliminary categories (Strauss & Corbin, 1998). I also recorded and transcribed this interview. These multiple sources of data collected at various time intervals provided data triangulation.

Data Analysis

I read the qualitative data, including interview transcripts, rating-scale transcribed comments, written reflections, and the transcribed focus-group interview, multiple times and coded them using a constant comparative method (Strauss & Corbin, 1998). Such coding involved looking for patterns and emergent categories, first within each participant's individual data, and assigning initial labels or codes to events and comments. I then used axial coding to compare labels across cases and to pull together specific labels from each participant around common categories (a common axis) at a more conceptual level. As these conceptual categories emerged, I used member checks, asking participatants to confirm or disconfirm what I was noticing. I tabulated numerical responses to the postlesson rating scales and determined a dissonance score. Because these scores were derived from participant self-reporting, they were consistent with the emic perspective, which I used throughout this study. Such a perspective helped ensure that I captured the reality that my participants perceived rather than only my own interpretation of their understanding.

Results

I calculated dissonance scores (see Table 2) by comparing the rating scale (see Appendix B, p. 109) score of each postlesson form, completed immediately after the lesson, with its partner postviewing rating scale, completed after watching

Table 2. Dissonance Scores

Table 21 Stock Mariot Course							
Preservice Teacher	Immediately After <u>First Lesson</u>	After Viewing First Lesson DVD	First Lesson	Immediately After Last Lesson	After Viewing Last Lesson DVD	Last Lesson	Difference between First and Last Lesson
Sharon	30	32.5	-2.5	19.5	21	-1.5	1
Jack	35	50	-15	29	34	-5	10
Clarissa	29	42	-13	23.5	25	-1.5	11.5
Heather	31	40	-9	34	37	-3	6
John	32	28	4	29.5	31	-1.5	2.5
Mary	41	40	1	31	34	-3	-2
Audrey	33	32	1	27	29	-2	-1
Sophie				20	22	-2	

the videos of the same lesson. Theoretically, if preservice teachers became better at noticing, the difference between these two scores should have become smaller as the semester progressed. In reality, that is what happened for six of the eight participants. (The rating scale was not completed during Sophie's first interview). The exceptions were Mary and Audrey, whose pre- and postviewing scores were very close from the start, suggesting that their self-assessments before watching the videos were already quite accurate early in the semester. I arranged items on the rating scale so that a lower score would coincide with a more positive self-assessment.

A negative score under First Lesson or Last Lesson indicates that the preservice teacher had a more negative selfassessment after watching the videos, whereas a positive score indicates a more positive self-assessment. A positive score under Difference between First and Last Lesson indicates that the postlesson scores and the postviewing scores were more closely aligned for the last lesson than for the first lesson. For example, for Clarissa's first lesson, her postlesson score was 29, but after viewing the videos, her score was 42, for a difference of 13. This would indicate that she had a much more positive view of herself immediately after teaching than she did after watching the videos of the lesson. Near the end of the semester, immediately after her last taped lesson, Clarissa's postlesson score was 23.5, whereas her postviewing score was 25, a difference of only 1.5. This 11.5 difference from her first lesson to her last lesson suggests that her initial perceptions of what actually happened during a lesson became more accurate, or at least more aligned with what she noticed on the videos.

Benefits

Throughout the semester, the participants cited numerous benefits of video self-analysis. I describe in the following sections the benefits on which the participants seemed to agree. They elaborated on many other benefits, but I have chosen to include only those that emerged as most salient, pervasive, and agreed on most often by participants.

A Different Perspective

All of the participants agreed that it was valuable to be able to see themselves and their students from a different perspective, allowing them to view themselves as their students would. Such a vantage point gave them the opportunity to "revise their internal representation of their own performance" (Dye, 2007, 26). Jack, as a representative example, believed his first taped lesson went quite well. Immediately after teaching the lesson, he said, "Most of the students looked like they were at least quietly reading.... Most of the time they were paying attention." After viewing the videos, however, he wrote, "Part of me wants to be upset at the students for not paying attention, but even I am groaning from boredom as I watch this video."

In a few instances, this dissonance between recollection and later viewing also worked the other way, providing a sense of relief that a lesson really wasn't as bad as initially believed. In the following passage, Heather realized after watching the videos that her focus on a few problem students caused her to miss the big picture, which was actually a positive learning experience:

I think the lesson went better than I thought. I cut the "find your partner" game short because I didn't think anyone was really trying the problem.... I think that I only noticed the typical "problem students" and I decided that since they were not motivated, the rest of the class didn't want to do it either. I only really paid attention to the students who were causing trouble that I missed the big picture where a good part of the class were doing the right thing.

Improvement in Teaching

All the preservice teachers also credited viewing the videos of their teaching as instrumental in noticing what they needed to improve and in helping them see the ways to do it. Heather is representative of this general view. She summed up her experience this way:

After the first video I thought, "Oh man, it's all about me up at the

board and that's it," and slowly I started transitioning. I could see it in the progress of the videos, like, "Ok, now I'm turning around a little bit more, I'm checking, I'm walking around more and doing better." Some of those should haves turned into those things that I actually did do.

Mannerisms. One specific way in which viewing the videos helped participants improve their teaching was in noticing and improving their mannerisms that they perceived as annoying or somehow impeding their students' learning. These included their body language, such as gestures, facial expressions, and posture; their movement as they taught; and their voice, including rate of speaking, tone of voice, volume, regional dialect, and repetition of certain words or phrases. Clarissa, for example, was not aware of how fast she talked until she heard herself in the videos. She said:

The first one [video] I was like, "Rrrrrrrrr," so fast. I could not believe it. The second one slower. and this one, I hope that it's slower than the second one. I feel like hopefully I'm progressing.

In particular, the participants felt that their lack of movement was the mannerism that most often affected how their students responded. After watching her second set of videos, Audrey, for example, wrote:

Instead of staying at the board for the majority of the time, I can try to move around more in order to keep their attention. If I am moving, their eyes follow, and it is easier to see who is paying attention."

A month later, Audrey discussed her perceived improvement:

I try to walk around more instead of just staying at the podium. On my first lesson I remember I think I just sat there the whole time. Now I think it's, I want to walk around more and see what's going on.

Sophie too noted in earlier lessons that her lack of movement caused some

of her students to be left out. After her last taping session, however, she said:

I'm much more conscious of how I move in the classroom and how I relate to students because in the past videos I noticed I'm teaching to one side of the classroom or standing in one spot. I'm much more conscious of moving around, back and forth....

Participants also commonly noticed negative aspects of their teaching style on the videos and then resolved to make changes. Among these aspects were calling only on certain students, not allowing enough wait time, acting as expert instead of facilitator, proceeding through the lesson too slowly, and not offering a good anticipatory set or closure to the lesson. As they progressed through the semester, they consciously adjusted their teaching style to address their perceived deficiencies. The following excerpts are indicative of participants' perception of improving specific aspects of their teaching style:

Audrey: "The last video that I did, I think I said that there wasn't a lot of structure to the lesson, and I think today I was really clear about making sure that I kind of had that anticipatory set.... I think I structured it a lot better than I did with that third video."

Sharon: "[After watching previous videos] I spent time trying to specifically have students guide me through the examples instead of doing all the talking by myself."

Jack: "I think that I really put out a lot more enthusiasm after watching some of those videos. It was like, 'OK, I need to start connecting with the students better and not just being the rigid teacher up there talking."

Personality. For several of the preservice teachers, viewing themselves and noticing the class response resulted in their conscious attempt to change aspects of their personality. They reasoned that such changes would make them more effective teachers, and their students would benefit. Many support-

ing passages alluded to resulting positive changes in confidence, enthusiasm, and simply letting students see their real personalities. Sharon's comment is indicative of these changes:

I guess sometimes you're trying so hard to maintain this level of maturity, sophistication, and to make sure that all the students are listening and all doing what they're supposed to. And now all of sudden, you know, your brows are crunched and you're not even having a good time, and that's when they get uptight too. And I think that that was really good for me to see because then I try harder the next time to enjoy myself, and then when I enjoy myself, they felt more relaxed, and it just got better for both of us.

Improving Withitness

Any assertion that video self-analysis caused improvement in the withitness of the preservice teachers in this study should be met with skepticism. I can report, however, that the perceptions of all the participants are that they did become more aware of what was going on in their classrooms and more vigilant about student behavior. They also gave more evidence of reflection-in-action in response to what they noticed and of their belief that they became better noticers, due at least in part to watching and analyzing videos of themselves and their students' responses. Improved withitness in three areas—classroom management, student understanding, and reflection-in-action-stood out as those most strongly supported by the participants.

Classroom management. All of the preservice teachers supported the assertion that viewing the videos, especially those focused on the students, helped them become better at noticing their students' behavior, which then helped them in their classroom management. Sophie, for example, said:

I definitely did become more aware. I felt like, and this is going to sound silly, but I felt like I had

my mom radar up all the time.... I had a couple kids, they're like, "Man, you're just like my mom. She always catches me doing stuff." So it definitely helped me be aware of my surroundings if not just looking for specific behavior.

After viewing the earlier videos, several participants expressed surprise and even shock at student behaviors that had gone unnoticed while they were teaching. Illustrative of this response is this comment from Heather: "On the second viewing, I was shocked at what I let the students get away with! I really didn't see half of the things that went on in the class while I was helping other students."

Besides raising their level of overall vigilance, they used the videos in particular to spot "problem students," as the following passages illustrate:

John: "I did notice since the camera was at another angle, a lot of texting going on and things like that, which made me the next time to be more aware to watch out for that?

Jack: "There was one student ... in a previous video was playing with a calculator under his desk for like five minutes straight, so then I knew that I had to keep a better eye on him and ensure that he's actually with me in future classes."

Mary: "A lot of times I would be teaching and I would notice some kids making some noise and think it's not that big of a deal. But then I'd be watching the video and be like, OK, yes it was a big deal.... And so when I would teach my next lesson, I would go, 'OK, I know these students from the video—this one, this one, this one. I'm keeping my eye on them this time to make sure that it's not happening again during this lesson."

Student understanding. In addition to their heightened awareness of student behaviors, the preservice teachers also saw themselves as being better able to detect when their students were with them and understanding. John, for example, initially would ask his students if they understood, assume from the responses he noticed that they

did, and then move on. While watching the video of his students, however, he noticed them questioning each other and exhibiting subtle signs of confusion. In response, he began to look more intently while he was teaching and began noticing more in the moment instances when his students were not actually understanding. Sophie too used the videos of her students to help her interpret the almost imperceptible hints her students showed. She said:

So I learned by watching myself what kind of pacing I needed to do. And in terms of "a-ha" moments, there were some kids who had permanent confused looks on their faces, and when their brows relaxed a little bit, and they weren't looking angrily at me, or whatever because they were focusing so hard, I was able to see that, yeah, they were starting to grasp what I was saying. But there wasn't like, "Oh yeah, I get that!" I think by watching the video I was able to tweak what I was saying and how I was presenting it to them.

Reflection-in-action. As this study progressed, several of the preservice teachers began describing more of their actions in terms of what may have been subconscious thought during their actions. If asked at that moment, they may not have been able to clearly articulate what they were thinking. Later, however, they were able to put into words the reflection-in-action, described by Donald Schön (1987), that actually occurred. In other words, in a split second they noticed what was happening, they interpreted what they noticed, they reflected on the implications of the actions they might choose, and then they responded in the thick of their classroom interactions. Such descriptions give evidence of the adaptive style of instruction described by Sherin and van Es (2002), which "calls for teachers to be skilled at noticing and interpreting classroom interactions" (1). One illustration of this reflection-in-action comes from Mary's last interview, where she explained what was going through her mind when she saw students raising their hands. She said:

I saw hands being up, and I made a judgment call—like here's typically a student who will just try to be the class clown and say something, so I'm not going to call on you. I'm going to ignore your question for the minute, and if the hand goes up again, I will then determine, "OK, it's probably class related now or they don't understand something."

Another illustrative passage from the same interview shows how Mary continued, using the metaphor of a recording to describe how she reflected in the moment in response to her students' expressions:

I look at my students, they're like, they have this puzzled look. I'm like, "OK, apparently what's on my brain is not what came through my mouth" ... Like if I notice a lot of students are being confused, I'll go back and replay the tape in my own mind of what I just said to them and see if when I replay those directions in my head, it was really what I wanted to say to them.

Deciding not to take any specific action—in effect noticing, reflecting in the moment, and then taking the action of ignoring—was another way that several of the participants described incidents of reflection-in-action. Audrey, for example, saw her decision to ignore one student's behavior as beneficial for the rest of the class. She explained:

...this one student always has his head down, never pays attention, never takes notes, and like you can't motivate him.... I think that I could have tried more to say, "Keep your head up, do this, do this," but then it's drawing so much attention to him that it takes away from the rest of the class. It's sort of like this struggle, because you want to help that kid so much, but you don't want to sacrifice the rest of your class for it.

Although the preservice teachers described many more instances of perceived reflection-in-action later in the semester than they had earlier, it is difficult to weigh the effect of video self-analysis on the frequency of these instances.

Conclusion

The preservice teachers participating in this study believed that watching and analyzing video of themselves and their students were valuable in several ways. First, they were able to see themselves from their students' perspective. This detached view allowed them to notice elements of their teaching style, their own mannerisms, and their personality quirks, which they could then attempt to improve. Second, they believed that they became more aware of classroom interactions and improved their withitness. This improvement was especially evident in noticing student behavior, resulting in better classroom management, in noticing how well their students were understanding, and in being more aware of their reflection-in-action.

A lingering question is: How much of their perceived gain can be attributed to watching the videos? I acknowledge that the evidence for my conclusions is not objective; it is based on the reported perspectives of my eight participants. This body of evidence, however, strongly supports that these preservice teachers value video self-analysis as a means of improving their teaching, their classroom management, and their withitness.

As busy student teachers, they felt privileged to participate in this study, despite the extra time and effort it demanded. They each spent several hours watching their videos, completing rating scales and questionnaires, and answering my questions. Yet when comparing themselves to the other student teachers who were not part of this study, the participants concluded that they had a distinct advantage. They even suggested that video self-analysis should be routinely required throughout the student-teaching internship. In part, the results of this study influenced our program's decision to now require all our teacher candidates to analyze and reflect on at least one video of their teaching.

As noted earlier, video self-analysis has been used in teacher education for decades. Unlike most research in this area, however, this study advanced the technique by using two cameras, with one focused on the students. As the cost of hardware, software, and blank media needed for analysis of this type has dropped significantly in the past several years, it is much more affordable and practical for teacher education programs to make video recording, even when using multiple cameras, part of their requirements. Our program, which graduates about 180 students per year, now has 36 camcorders available for preservice teachers to check out. We have also learned that many of them own their own video cameras.

For this research, it was also easy to produce high-quality DVDs, which allowed participants to notice almost imperceptible events, expressions, and gestures. In recent years, video capture and analysis tools have been developed that allow users to watch the video on part of the computer screen and to annotate and comment on specific clips on the other side. Previously cited researchers (Rich & Hannafin, 2008; Sherin & van Es, 2005) made use of one such tool, Video Analysis Tool (VAT), in their video analyses. Because videos were then viewed online, they were compressed and displayed in a 320 x 240 format, which is too small to notice much of what actually goes on in a typical classroom. Although I considered using a tool such as VAT, I decided instead that being able to clearly see student expressions and subtle interactions was more important than being able to annotate on the same screen.

The results of this study highlight the important role that video selfanalysis could play in teacher education. Although the preservice teachers in this study may attribute much of their improvement, even of their withitness, to video self-analysis, more research is needed to validate their claims. In

particular, it would be enlightening to compare groups of preservice teachers who use regular video self-analysis with those who do not. This study has shed more light on one way that video might be used in teacher education, but we who prepare teachers still need clarification on how, or even if, we can teach withitnes. Are great teachers, like great quarterbacks, as some believe, are born? I still have hope, and those in positions like mine may agree, that great teachers are made, and we can still play an important role in their preparation.

Author Note

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Appendix A

Interview Guiding Questions Intern: Date: How well do you think the lesson went? Did you notice anything that interrupted your teaching? What did you do about it? Did you notice any incidents that distracted other students from paying attention? If yes, how did you handle these? Could you tell whether or not students had the necessary background knowledge for this lesson? What were the indicators? Did you notice any student not paying attention? What gave that impression? Was there anything in particular that really grabbed students' attention? Did any students give any indication of "a-ha" moments, when they seemed to get it? How would you describe your pacing? Did you notice any students who did not seem to understand? What gave that indication? Did anything happen that caused you to modify your lesson or change course during instruction? How would you describe the general climate of the class? Added after Viewing What did you notice on the video that you were not aware of while you were teaching? Would you have done anything differently if you had been aware at the time?

What effect did watching previous videos have on what you did during this lesson?

Did your preparation change?

Appendix B

Rating Scale. For this lesson	on please rate the following:		
Students were with me and p	paying attention. Usually	Sometimes	Never
I was on top of everything the	at was going on in the classroom. Usually	Sometimes	Never
Number of incidents where s	tudents were off task 1–3	4–7	8 or more
Number of incidents where s	tudents were disruptive 1–3	4–7	8 or more
Students demonstrated responsive	ect for me. Usually	Sometimes	Never
Students recognized me as a Always	an expert. Usually	Sometimes	Never
During this lesson I responde Always	ed to student questions in a timely fashion. Usually	Sometimes	Never
I demonstrated respect for st Always	udents. Usually	Sometimes	Never
Students respected each oth Always	ers' contributions and comments. Usually	Sometimes	Never
I encouraged student involve Always	ment and interest. Usually	Sometimes	Never
The student s saw me as hel Always	pful and encouraging. Usually	Sometimes	Never
Students could clearly hear n Always	ne. Usually	Sometimes	Never
Students felt challenged at ar Always	n appropriate level. Usually	Sometimes	Never
Students interpreted my com Always	ments as I intended them. Usually	Sometimes	Never
Students were satisfied with I Always	my answers to their questions. Usually	Sometimes	Never
Students understood directio Always	ns that I gave. Usually	Sometimes	Never
I noticed when students need Always	ded help. Usually	Sometimes	Never

Appendix C

Focus Group Interview Guiding Questions

What was the quality of the videos? Visual and sound quality? What did you think of the DVD format?

How did you watch the videos? More than once? Stop and go back? Did anyone watch any of your teaching with you?

Did you ever watch with the intent on focusing on something in particular (i.e., student behavior, your mannerisms, etc.)?

Did you improve at noticing things that go on during class? How did watching the videos help? Was this beneficial for you? What were the benefits of watching yourself? Of watching your students? Value for you?

What stands out about what you noticed in your videos?

After watching videos, did you find yourself thinking about what to do differently during subsequent lessons? What changes did you make as a result of watching yourself and your students?

Did the way you respond to what happens in the moment change from watching the videos?

Did you become better at noticing what goes on in the classroom? At interpreting what goes on? Were there subtle things going on that you began to tune in to?

Did you find yourself thinking about how what you do might look like on video? Did it help? Did you think about withitness while you were teaching? What impact did that have?

What stood out about your teaching methods, strategies? What stood out about your mannerisms, voice, movement, expressions, eye contact, etc.?

Were you able to see tangible evidence of your growth? What did watching the videos teach you about yourself? What changes did you make as a result?

Based on what you saw in the videos, what do you want to work on in your teaching?

Was this a valuable method for self evaluation? Did you find yourself more evaluating yourself or looking for ways to improve?

Should we try to include more video analysis as part of the student-teaching seminar?