Video Changes Everything:

Why Video Cameras Are Going to Transform Professional Learning in Schools

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Bill Gates provoked an explosion of commentary when he suggested, in his May 2013 TED talk, that there should be a video camera in every teacher’s classroom. Many recognized that video cameras, used effectively, could dramatically improve how teachers teach and how students learn. Others recognized that if video cameras were used as tools for control, they could profoundly damage teacher morale and decrease the likelihood of any positive change occurring in schools. The truth is that both sides are right.

For the past five years, I have been studying how educators can use video cameras. At the Kansas Coaching Project at the University of Kansas Center for Research on Learning I’ve been involved in two design research projects (Bradley et al., 2013) that explore how coaches and teachers can effectively use video as a part of the instructional coaching process. At the Instructional Coaching Group my colleague Marilyn Ruggles and I have conducted more than 50 interviews with teachers, instructional coaches, and principals who are using video every day to improve teaching. Our biggest finding? Video cameras, when used effectively in a manner that respects the professionalism of teachers, can have an unmistakable positive impact on teaching and learning.

Video can be very powerful, but it has to be implemented in a way that positions teachers as professionals or else all is lost. To understand how this can be done, let’s consider four examples where video was effectively employed to improve teaching.

**Instructional Coaching**

When reading specialist Jody Johnson from Beaverton, Oregon agreed to collaborate with instructional coach Lea Molzcan, Jody knew the class she wanted to work on, but she wasn’t sure what she should do. Lea started the coaching process by video recording Jody’s class, and then she and Jody watched the video separately. After they had both watched the video, Lea and Jody met to discuss what they saw and set a goal.

Jody saw a lot. She was most concerned that the students took a full ten minutes to settle down before the reading lesson could actually begin. Ten minutes each day for a 190-day school year was an awful lot of wasted time. The video, however, also showed Jody that although the students were off task much of the time, they were very engaged during guided reading. In fact, Lea and Jody both saw that the students genuinely loved the time when they read books like *Big Nate* or *The Wimpy Kid*. The video, then, was both encouraging and discouraging. The students could be engaged and embrace reading, but it took a long time to get them there.

When Jody and Lea met, Jody decided her goal was to get students ready to learn within three minutes of the start of class. They identified two things Jody would do to meet the goal. First, she would move guided reading to the start of the period, and tell students they’d only get ten minutes for guided reading starting when the bell rang, and that class would only start when everyone was settled and ready to learn. Second, Jody explicitly taught the students expectations for how they were to behave at the start of the class.

The students blew away the goal. Class began to start in less than two minutes, which added eight minutes of instruction to every class (spread over an entire year that was almost seven weeks more learning). The orderly beginning to the class also positively affected the rest of the class. Because of the two small changes that were identified when the coach and teacher discussed the video, the students became actively engaged through out the class, and most importantly, they were learning. Lea told me that although none of the students had ever previously achieved proficiency on the state reading test, almost all students were proficient at the end of that year in Jody’s class.

**Teacher Evaluation**

In the spring of 2013, when Chad Harnisch, a principal at Rice Lake High School in Wisconsin, considered the 60 teacher evaluations he had to complete as part of his duties as a principal, he wasn’t particularly happy. Chad had found that conversations about teacher evaluation rarely led to meaningful dialogue about teaching. Usually the meetings were uncomfortable discussions about different recollections the principal and teacher had about what happened during a lesson. “The conversation,” Chad said, “always has an element of confrontation because the teacher is remembering what she thinks happened from her perspective, and I am remembering what I think happened from my perspective, and there can be a disconnect between those two remembrances.”

Chad decided to try to improve the conversations he had about professional learning by integrating video into his teacher evaluation process, and he asked Amy Pelle, an English teacher at Rice Lake, if she would be interesting in experimenting by making video a part of the teacher evaluation process. Amy volunteered, and Chad met with Amy to ensure they both agreed on how to use the evaluation tool—which happened to be Domain 3, Instruction, in Charlotte Danielson’s Framework for Teaching (Danielson, 2007). Then he video recorded a lesson and he and Amy met twice, first to talk generally about the lesson as seen through the filter of the evaluation, and then secondly to talk about Amy’s goals moving forward.

Chad was incredibly impressed by Amy’s class, and he said that if he had done a traditional evaluation, they wouldn’t have had much to talk about. “If I had gone in and done it the old way—just gone in with the form and then later marked down my evaluation—it would have been “distinguished, distinguished, distinguished.” But after watching the video, Chad and Amy were able to have a real conversation where together they talked about how Amy might engage one particular student that was really concerning her. Principal and teacher didn’t spend their time talking about their various memories of the classroom, they spent their time talking about teaching. Chad said that

he “couldn’t believe the difference in the conversation [with Amy]. The video allowed … [the principal and teacher] to have a more professionally rich conversation.” Given the results, Chad told us, he is “going to offer it to all [his] teachers.”

**Teams**

Principal Cyrus Weinberger and clinical professor Rychie Rhodes at Red Hawk Elementary in Erie, Colorado were convinced that video could accelerate professional learning in their school, so they established teams of teachers who volunteered to participate in video learning teams. Rychie recorded volunteer teachers teaching their lessons and then edited the recordings down to about 15 minutes each. She burned the video to DVD and sent a copy to every teacher on the video learning team. Team members then watched the DVD before the next learning team meeting.

To prepare for the team discussion, while watching the video, each team member took notes using a template that Principal Weinberger had developed. The template focused everyone’s attention on (a) the learning activity, (b) what the teacher was doing, (c) what students were doing, and (d) feedback they wanted to provide. The use of video and the template, Rychie said, led to practical, deep dialogue. “It is amazing how much more objective and richer the dialogue is after teachers have had time to think about the video.”

The person who was video recorded usually started the conversation during team meetings, but during meetings other team members eventually talked about what they had seen. The group worked through the questions on the template and Rychie took notes. At the end of the dialogue, the person who was video recorded summarized what he or she had learned, and then the next volunteer explained how he or she would build on what had been learned. Rychie sent everyone notes of the meeting, and the whole conversation usually lasted no more than an hour.

During our interview, Rychie told me that the staff at Red Hawk had begun to share their teaching practices in a way that has not happened before. For example, Rychie explained that a team might watch the way a teacher and student interact and tell the teacher, “Wow, that really worked. I could see that student really light up.” Then, Rychie said, the team might start to ask more questions, such as, “Do you do that daily? How do you keep track of progress? What’s your management system for gathering data? Is it a weekly collection?”

During team conversations at Red Hawk Elementary, video prompts teachers to share ideas and learn how to implement what their colleagues are doing. This has led to a lot of authentic reflection about practice. Teachers think about their own practice, learn new ways to teach, and then plan to implement the new practices. Rychie told me, “There have been a lot of really rich aha moments.”

**Teachers Coaching Themselves**

Kimberly Nguyen, a special education teacher in Delton Kellogg Schools, Michigan, is deeply committed to improving her practice. She was part of a group of teachers studying *High-Impact Instruction: A Framework for Great Teaching* (Knight, 2013), and she decided to use video to go deeper into analyzing her own practice, “to feel and see,” she said, “exactly everything that [she] did”. She watched two classes she was teaching, the group that was most engaged and the one that was least engaged.

Kim was surprised to see that she was a different teacher in each room. “With the engaged group,” Kim said, “I am much more animated and I interact more. With the second group, I really struggle with my mood, and my response time is lower. In that class, I think I am really boring.”

Having the chance to review the video gave Kim a chance to gather specific data on how she was teaching. After watching the video twice, Kim reported that she “found that she had 41% positive comments with only 17% of those comments involving effective, specific praise. She also found that she had 59 % negative comments, with 17 of those interrupting the lesson so significantly that it stopped the lesson.”

Video gave Kim a crystal clear picture of her reality, and she was able to set a specific, student-focused goal, both for individual students and for each, entire class. More importantly, knowing what she was doing and setting a meaningful goal derived from real data helped her see how she needed to change her practice. Kim told us:

Children this age [grades 1-4] really need a lot more activity… My kids do really well with the direct and explicit instruction, but they need the components of freedom and movement. So it will be a challenge to figure out how to put those things together and start using more cooperative learning strategies and explicit learning strategies. I think that is going to be the best combination.

**Video and The Creative Tension of Professional Learning**

In each of the vignettes above, video was used by educators to get a clear picture of reality and to help identify some kind of change that will take place in teaching practice. As it turns out, these two factors—a clear picture of reality and a goal—stand at the heart of most professional learning.

Three decades ago, Robert Fritz (1984) provided a simple but powerful explanation for the dynamics of professional growth. To grow, Fritz explained, we need two things: a clear picture of current reality and a goal that we want to achieve. The difference between our reality and our goal creates a tension that can only be resolved if we either achieve the goal or give up. A compelling goal makes us discontent with our reality; it pulls us forward to a better version of ourselves.

To establish this kind of tension, then it is important that we have a clear picture of reality—but when it comes to professional practice, that is easier said than done. In almost every case, the instructional coaches and teachers we have interviewed have been very surprised (in many cases shocked) to see what it looks like when they teach and their students learn. In some cases they are delighted by what they see, and in other cases they are disappointed, but in almost all cases they are surprised. Watching yourself on video is very similar to hearing your voice on an audio recording, but amped up to the power of ten.

There are at least three reasons why we don’t have a very clear picture of what it looks like when we teach. First, teaching is such an all-encompassing intellectual task that it is very hard to step back and reflect on exactly what is happening in a given moment. Second, teachers, like all human beings are prone to get used to what they see everyday—psychologists refer to this as habituation—and this means that over time our understanding of our class can become less and less accurate. Finally, all people, teachers included, are prone to seek out data that supports their preconceived understanding of reality—what psychologists refer to as confirmation bias. Consequently, because of the busyness of teaching, habituation, and confirmation bias, most teachers really do not know what it looks like when they teach.

Video cuts through habituation, confirmation bias, and the complexity of teaching and reveals an accurate picture of what is going on in the classroom. Video initiates the creative process. But educators also need to set up goals if they are going to bring about real change. In our work with educators we have identified five factors that are essential for effective goals.

---insert PEERS acronym here---

**Effective Team Goals**

Powerful

Easy

Emotionally Compelling

Reachable

Student-Focused

--end PEERS acronym about here---

Educators often talk about SMART goals, which are variously understood to be Specific, Measurable, Attainable (or Actionable/Assignable), Realistic (Relevant) and Timely (or Time Bound) (Doran, 1981). I suggest that educators consider a few different factors summarized in the acronym, PEERS, when setting goals. Each of the factors is described below.

*Powerful*. The best goals have the biggest impact, so before investing in a goal people should ask a simple question, “Will this make a significant difference for children?”

*Easy*. A goal that makes a difference, but is really difficult to implement is often a goal that doesn’t get implemented. Certainly every goal can’t be easy, and many tasks are unavoidably difficult, but given how busy educators are, the easiest of two equally powerful goals is almost always the best choice.

*Emotionally compelling*. The goals we are most likely to implement are the ones that address the issues we stay awake at night worrying about. The best goals matter to us at a personal level, so before setting a goal, educators need to be sure that it is one that really matters to them.

*Reachable*. Reachable goals have at least two characteristics. First they are reachable because we have a strategy that we believe we can implement to achieve the goal. A goal only inspires hope when we have a clear pathway to follow to hit the goal (Lopez, 2013). Additionally, we need a measureable outcome so we know when we have hit the goal.

*Student-focused*. Our research on coaching has surfaced that effective goals are student-focused rather than teacher-focused. If teachers set teacher-focused goals (I want to use graphic organizers twice a week), they can hit the goal and never know if it made any difference for students. A student-focused goal provides clear feedback on whether or not the goal made a difference for students, and it provides an objective standard for quality simply because a poorly implemented practice is likely one that will not make a difference for students.

Throughout the entire process of professional learning, then, video plays a central role. Initially, video provides the clear picture of reality that is essential for establishing a goal that meets the PEERs criteria. Additionally, once a goal is set, video can be used to monitor progress toward the goal.

Video will become an important part of professional learning in most school systems because it is so easy to use and because it can lead to measureable positive changes in student attitude, behavior, and achievement. For these reasons, educational leaders and policy makers might be tempted to push video into their schools in a heavy handed, compulsory way. Such a strategy is a recipe for disaster. Before moving forward to create a video program, I suggest leaders consider the following guidelines for success.

---insert list about here---

**Guidelines for Success**

1. Create Psychologically Safe Environments

2. Make Participation a Choice

3. Focus on Intrinsic Motivation and Safety

4. Establish Boundaries

5. Walk the Talk

6. Go Slow to Go Fast

--end list about here ---

**Guidelines for Success**

**1. Create Psychologically Safe Environments.** People who choose to teach, invest a lot of themselves in the work they do. Teaching is personal and, for most educators, ultimately teaching is a major a part of their identity. Stone, Patton, and Heen (1999), have described identity as “the story we tell ourselves about ourselves” (p. 112). When something like a video recording of our lesson causes us to rethink our story, it can be disturbing. Stone and his colleagues write that “relinquish[ing] a cherished aspect of how you see yourself… At its most profound, … can be a loss that requires mourning just as surely as the death of a loved one” (p. 114).

Watching ourselves on video can truly be an unsettling experience. First, people are never satisfied with their appearance (I’ve yet to hear someone say, “I’m much younger and thinner than I realized”). More importantly, though, watching video forces people to rethink a great deal about who they are and what they do as professionals. Asking someone to risk changing the “story they tell themselves about themselves,” is a lot to ask. The only problem is that rethinking our assumptions is also one of the most important ways that we can learn. Educational Consultant Jean Clark, from Cecil County Maryland, explained this clearly when she and I talked about how video was used in her district.

It is painful to realize that what we thought is reality isn’t reality, that who we thought we were is not who we are. That’s a powerful realization that changes the direction of where we are going. This is very hard to do because you have to be vulnerable. But it’s authentic… and that’s the way we become adults.

Since watching video is so emotionally challenging, people will not embrace the use of video unless they do so in psychologically safe environments. Amy Edmonson, the Novartis Professor of Leadership and Management at Harvard University, has described psychologically safe environments as follows:

In psychologically safe environments, people believe that if they make a mistake, others will not penalize them or think less of them for it. They also believe that others will not resent or humiliate them when they ask for help or information. This belief comes about when people both trust and respect each other, and it produces a sense of confidence that the group won’t embarrass, reject, or punish someone for speaking up. (2012, pp. 118–119)

#### **2. Make Participation a Choice**. No doubt some leaders will be tempted to make video compulsory across a school or system. This is problematic for many reasons. First, telling people they must do something almost ensures that they won’t want to do it. As Timothy Gallwey (1974) has written, “When you insist, they will resist.” Gallwey’s comments apply to people whether they are 7 or 77, but they especially apply to professionals who are paid to think and make individual decisions.

Second, making video compulsory could damage school culture and decrease trust. Almost everyone feels stress and anxiety when they are first asked to record themselves and share the video with others—for all the reasons mentioned above. Adding pressure by making video compulsory could lead to resentment, hostility, and resistance, and that does not sound like a psychologically safe environment.

Finally, when leaders take away choice, they decrease the professionalism of teachers. Peter Block (1993) has made this point clearly. He writes that “Partners each have a right to say no. Saying no is the fundamental way we have of differentiating ourselves. To take away my right to say no is to claim sovereignty over me . . . If we cannot say no, then saying yes has no meaning” (pp. 30–31).

Ensuring that teachers have choice about their learning does not mean that educators should have the option of choosing not to learn. Continuous improvement is a defining characteristic of professionalism, so teachers who want to be considered professionals, must continue to learn. But how teachers learn and what teachers learn should be at least in part determined by teachers. If we want our children to be taught by professionals, we must treat teachers as professionals, and that means giving them a lot of choice about what and how they learn.

**3. Focus on Intrinsic Motivation**. The way video is used will depend a lot on how leaders understand motivation. If leaders believe teachers will only change when they are pressured, extrinsically motivated, or in worst-case scenarios, embarrassed, then they may wish to use video as a tool to pressure teachers to change. Such a primitive understanding of motivation will likely make things worse not better.

Researcher Theresa Amabile and a host of other researchers (for a summary of this research see Daniel Pink’s *Drive: The Surprising Truth About What Motivates Us*, 2009) have found that for complex work like teaching extrinsic motivation actually decreases effectiveness. After reviewing thousands of data points from surveys, interviews, and observations of many teams in corporations, Amabile summed up her findings as follows:

Managers who say—or secretly believe—that employees work better under pressure, uncertainty, unhappiness, or fear are just plain wrong. Negative inner work has a negative effect on the four dimensions of performance: people are less creative, less productive, less deeply committed to their work, and less collegial to each other when their inner work lives darken. (Amabile & Kramer, 2011, p. 58)

When video recording is shared in a way that supports each educator’s intrinsic desire to improve, video can be a power tool for rapid, significant improvement. Video, because it accelerates professional learning, can awaken or deepen a teacher’s desire to achieve his or her personal best.

**4. Establish Boundaries.** When I discuss video with teachers, the most common question they ask me is “Who is going to see this video?” Teachers usually recognize that they can learn a lot by watching a video recording of one of their lessons, but they want to be assured they won’t have to conduct that learning in public, especially because they can’t be sure what the video will reveal. For this reason, I believe districts should adopt the policy that video recordings belong to the person being recorded, who should also solely determine when or if any video will ever be shared with anyone.

When leaders clarifying who controls video, they establish a boundary so that people know exactly what will happen when they use video to accelerate their professional learning. Boundaries give structure to professional learning and help everyone involved know what is and is not expected when video is introduced. Imagine trying to play a game when all the players have different interpretations of the rules. There is a good chance the game would dissolve into arguments and frustration since everyone would have a different understanding of right and wrong. So too in schools. If boundaries are not established for the sharing of video, learning can dissolve into arguments and frustration. Boundaries establish the rules of the game.

Boundaries are especially important for the emotionally complex knowledge work of recording teaching and learning from the recording, especially when that learning occurs in partnership with others. Boundaries might shape what people pay attention to on a video, the orientation of comments, or the process to be followed whenever teachers talk about video. Some possible boundaries include the following:

Possible Boundaries for Conversations About Video

1. Focus on data.

2. Be nonjudgmental.

3. Respect the complex nature of teaching.

4. Be positive.

5. Be respectful.

6. Be supportive.

7. Offer suggestions for improvement only after being asked.

**5. Walk The Talk**. One of the most powerful ways leaders can promote the authentic use of video is by using video themselves. Video is such a powerful learning tool that it can be employed in many different ways, and some of them don’t have to happen within the walls of a school. People can use video to learn about a wide variety of aspects of their life. When I conducted a global study on the use of video as a tool for improving interpersonal communication, I received over 500 responses from people who used video to improve the way they listened, built connections, and found common ground with their spouses, children and other people in their lives. Again and again people reported that they benefited greatly because video helped them see the way they communicated in entirely new ways.

Within schools, instructional coaches can video record themselves coaching and then use video to identify goals for improving their practice. By using video to learn the coaches demonstrate the power of video through their actions. And they do learn. When I asked the instructional coaches involved in our Kansas Coaching Project’s first design study what was the most important type of professional learning for coaches to experience, they were unanimous: coaches should watch themselves on video.

Principals can walk the talk by using video to improve. Thus, a principal might video record himself leading a school meeting or professional development session to identify ways in which he can improve. Coaching expert Steve Barkley proposes a novel way for principals to walk the talk. Steve suggests that principals video record themselves teaching a lesson (perhaps by conducting a model lesson in someone’s classroom if they do not have teaching responsibilities) and then use the video as part of a staff meeting. Steve suggests that the principal share the video and then set up a coaching conversation with an instructional coach. Simply put, when the principal records a lesson and agrees to be coached, she or he sends a powerful message that she’s not asking anyone to do anything that she wouldn’t do. And if the principal walks the talk by using video, chances are many more educators will agree to use video as well.

**6. Go Slow to Go Fast**. When it comes to change, the temptation is always to try go faster and do more rather than to take the time to do things right. Certainly we all feel the urgency to move quickly. If we can find ways to improve teaching, we can improve the lives of children. Too often, however, the urgency of the situation leads us to implement recklessly, in ways that don’t lead to sustained change, and that ultimately make things worse since each poorly implemented innovation decreases people’s readiness for change. If schools race from one new program to another never really implementing anything effectively, teachers are right to state, “this too shall pass.”

If video is going to have a real impact on teacher quality, then video must be implemented effectively. I suggest that leaders start with a few volunteer teachers, ideally informal leaders in the school. Then, leaders should do all they can to ensure that those volunteers receive sufficient coaching and time to really learn from their video. To ensure that everyone understands that video is intended only as a support for professional growth leaders need to communicate repeatedly a few simple messages: people only need to use video if they choose, those who use video own the video, and no one has to share anything unless they are comfortable doing that.

Most importantly, perhaps, leaders have to communicate that although every professional has a great deal of autonomy about how and what they learn, in a professional culture, everyone must be learning. And video, by providing a clear picture of reality and a way for measuring progress to a goal, is an extremely powerful way to make that learning have a real impact on student learning.

Conclusion

The invention of micro cameras has made it possible for educators to easily gather powerful data about how teachers teach and what kind of impact they have on student learning. Like anything that is powerful, however, cameras need to be used with care. A coercive, heavy handed approach to video could significantly inhibit professional growth in a system. An approach that recognizes the professionalism of teachers, however, could have a dramatic, positive impact on teaching and learning.

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