New technologies can dramatically change the way people live and work. Jet engines transformed travel. Television revolutionized news and entertainment. Computers and the Internet have transformed just about everything else. And now small video cameras have the potential to transform professional learning.

While teachers have used video to review their lessons for decades, cameras were, until recently, complicated to use and so large and cumbersome that they interrupted the learning taking place in the classroom. Now, cameras are tiny — half the size of a deck of cards — and easy to use, often controlled by the push of a single button.

Recognizing the potential of this new technology, researchers at the Kansas Coach-
ing Project at the University of Kansas Center for Research on Learning conducted a three-year study to analyze what happens when coaches and teachers watch themselves on video. The results of this study show why these cameras are important and how they can be used by instructional coaches, individual learners, and teachers in the classroom and in study groups.

WHY CAMERAS ARE IMPORTANT
Cameras serve four important functions within professional learning:

1. **Cameras help educators (teachers, coaches, administrators, and others) obtain an objective, accurate view of themselves at work.** In analyzing teachers watching themselves on tape, researchers found that teachers are often surprised by what they see. Research conducted by change expert Prochaska and his colleagues (Prochaska, Norcross, & DiClemente, 1994) demonstrates that people are often unaware of the true nature of their professional practice. According to these researchers, people are often unaware of their need to improve. Video gives educators an honest picture of their professional practice.

2. **Video recordings propel educators forward into change.** After watching themselves on video, many teachers feel compelled to improve learning in their classrooms almost immediately. Stacy Cohen, an instructional coach for a Kansas Coaching Project study, reported that the night one of her collaborating teachers first saw a video of her lesson, the teacher stayed up until 2 a.m. reworking her lesson plans because “she couldn’t stand to see how bored her students looked.”

3. **Video recordings are important for goal setting within coaching.** Because the information recorded on video provides a rich picture of reality, educators who review video of their lessons are more inclined to write learning goals that matter to them. Coaching, as Har-grove (2008) explained, is often more successful when it is pulled forward by the goals of the person being coached (what he calls “pull coaching”) as opposed to when it is pushed forward by the coach’s goals (“push coaching”).

4. **Because video recorded on small cameras is easy to gather and of high quality, it provides a picture of reality that can be used to measure progress toward a goal.** Real improvement requires what Colvin (2008) referred to as “deliberate practice” and precise feedback. Video is an easy and effective way for teachers working with coaches, on their own, or in teams to get the feedback they need to move forward as learners. As one coach commented, “I am thankful to have the video that documented all of our conversations so I can see the progress that we made. I know that you have to go out of your comfort zone in order for good learning to happen, and this has been my experience.”

### HOW TO GET THE MOST OUT OF WATCHING VIDEO

#### GOAL
Identify two sections of the lesson that work and one or two sections that need improvement.

#### PREPARATION
Watching oneself on video is one of the most powerful strategies teachers and coaches can use to improve their practice. However, it can take some time to become comfortable with the process. Here are some preparation tips:

- Find a place to watch where there are no distractions.
- Read through teacher and student surveys or other material to determine what to watch for.
- Set aside a block of time to watch the video uninterrupted.
- Have pen and paper ready to take notes.

#### WATCHING THE VIDEO

- Plan to watch the entire video at one sitting.
- Take notes on anything that is interesting.
- Be sure to include the time from the video beside any note.
- Watch for positive elements as well as areas needing improvement.
- After watching the video, review the notes and circle items to discuss with the coach.

### GETTING SPECIFIC
The tools on pp. 22-23 offer specific teacher and student actions and behaviors to look for while watching classroom lessons. These tools can help viewers focus on specific elements of instruction as they make notes about their performance and prepare for discussion with a coach or peers.
HOW CAMERAS CAN BE USED

• Instructional coaches

Researchers analyzed hundreds of hours of video recordings of instructional coaches and held three-day focus groups with coaches three times during each year of the three-year study. One result: All coaches in the study believe that cameras are essential tools for instructional coaches.

Instructional coach Susan Leyden is typical of the participating coaches when she comments, “The video is key to everything.” Leyden says video is essential to identify an instructional challenge, set a goal, watch students, and have an objective record. Leyden notes that because video is objective, it makes coaching less personal. “The video is huge because it takes me out of it,” she says.

When coaches use cameras with teachers, the video recordings they produce become central to the coaching process. Thus, instructional coaches in the research project embedded video into the entire instructional coaching process (Knight, 2007), using video recordings with teachers to gather data on classroom reality, set goals, identify the coaching focus, and monitor progress.

To get the most out of using video recordings, the coaches employed the following practices:

• To alleviate the awkwardness many people feel watching themselves on video, coach and teacher should play with the camera a while before recording a lesson.

• Before recording, coach and teacher should decide whether it is more important to see students or the teacher and then position the camera appropriately.

• After recording, coach and teacher should first watch the video recording separately. This allows the teacher to experience the video in his or her own way, and it allows the coach time to prepare questions for an exploratory coaching conversation.

• Coaches should prepare teachers carefully for watching the video. Coaches in the study gave teachers a document explaining how to get the most out of watching the video (see table on p. 19) and surveys that teachers could use to focus attention on either their own practice or students’ performance or behavior (see pp. 22-23).

• Before the coaching conversation and while watching the video separately, teachers and coaches should identify two or three video clips where they think learning is proceeding well and two or three other clips where the learning was not proceeding as well and that they would like to discuss further.

• During discussion of the video, coaches should either watch the video or talk about it. The study showed that when coaches and teachers tried to watch and talk simultaneously, the conversations were ineffective.

What is good for teachers is also good for instructional coaches. Coaches in the Kansas Coaching Project study found watching themselves on tape valuable. In fact, when coaches in the study were asked to identify the best form of professional learning for coaching, they unanimously said watching oneself on tape. One coach’s comments are typical: “I am probably learning more than they are.”

• Individual learning

In 2009, one researcher conducted an informal study that asked more than 300 people from around the world to coach themselves on important communication skills such as listening, finding common ground, and building emotional connections. In most cases, participants coached themselves by video, recording selected conversations with colleagues, friends, students, and family, then watching to see what they could learn from the video.

Those who watched video of their conversations reported that they gained insight into such aspects of their communication skills as their facial expressions (“I thought I was attentive, but my facial expressions showed otherwise”), areas where they could improve (“In watching myself on video, I confirmed to myself that I monopolize conversations”), and areas where they improved (“I know this time I gave more eye contact ... and tried to make sure my conversation partner really saw I was interested. I leaned in and nodded as well as gave some comments that showed my interest in the conversation”).

One participant wrote, “The video and listening tapes made a huge difference. Thinking about how you listen is not enough. When you see yourself and/or listen to yourself, it makes the process real. It made me focus and really pay attention to what I was doing.”

• Teachers in the classroom

Video recording provides a way for teachers to review and reflect on their teaching practices. Teachers can get a rich record of how students are performing or how they are teaching by setting up a camera in the classroom. For example, teachers can use video to record such aspects of teaching as the level, type, or kind of questions they ask, how frequently they praise students compared to how frequently they criticize them, clarity of instruction, pacing, and animation. Teachers can watch the video to assess their facial expressions and other nonverbal communication, to see if they are ignoring some parts of the room, or to note if bias toward particular students or groups of students has crept into their practice.

Video can also help teachers get a second look at students. Teachers can assess whether students are authentically engaged or which activities or teaching practices seem to most effectively increase student engagement. Video can also provide insight into each class’s culture, giving teachers a window into what students’ actions suggest about their assumptions about the purpose of learning, the boundaries of respectful communication,
and the connection between effort and success.

Finally, video helps teachers see actions or expressions that foster or inhibit emotional connections. Rolling the eyes, making sarcastic comments, talking down to students, or looking uninterested can destroy connections. Video also shows actions that encourage connection, such as praise, smiles, or words of encouragement.

- **Learning teams**

Teachers can learn a great deal about their practice when using video recordings during collaborative learning. Jean Clark, an educational leader from Cecil County, Md., created a process that brought teachers together to watch and discuss video recordings of themselves teaching. All teachers in the video study groups were implementing the same teaching practice, and the video study group was a way for everyone to deepen their understanding of how to teach it.

Before each meeting, one teacher volunteered to prepare and share a video for the next session. To prepare the video, the volunteer recorded himself or herself using the teaching routine in the classroom. After recording the class, the teacher used video editing software to identify aspects of the lesson that went well and a section of the lesson that needed improvement. Editing the film caused teachers to watch their lessons many times, and those repeated viewings led them to see details of their lessons that wouldn’t have been obvious after watching just once.

At the next video study group meeting, the teacher shared his or her video with the group, showing each section and asking for comments. Clark guided team members to collaborate and identify values they would work from while discussing each other’s video. Thus, comments about lessons were positive, honest, constructive, and useful.

Usually, the volunteer shared two positive clips first. After showing each one, he or she commented on the lesson and asked colleagues for feedback. Each teacher in the video study group went through this process.

Clark reported four benefits to the video study groups:

1. Teachers learn a great deal by watching themselves teach, especially after they have watched themselves several times.
2. Video study groups are good follow-up to professional learning by increasing the likelihood and quality of implementation after training.
3. The dialogue that occurs during video study groups deepens group members’ understanding of how to teach the targeted practice and often introduces them to other teaching practices while watching others teach and listening to team members’ comments.
4. When teachers come together for such conversation, they often form a meaningful bond because the structure of a video study group compels everyone to stand vulnerably in front of their peers and engage in constructive, supportive, and appreciative conversations with colleagues. Those bonds may ultimately be more important than all of the other learning that occurs since they create supportive, positive relationships among peers.

**A CLEAR PICTURE OF PERFORMANCE**

Better teaching equals better learning. However, improvement of any sort is usually fleeting at best without a clear picture.
## WATCH YOUR STUDENTS

**DATE __________________**

After watching the video of today’s class, please rate how close your students’ behavior is to your goal for an ideal class in the following areas:

<table>
<thead>
<tr>
<th></th>
<th>Not close</th>
<th>Right on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are engaged in learning (90% engagement is recommended).</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Students interact respectfully.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Students clearly understand how they are supposed to behave.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Students rarely interrupt each other.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Students engage in high-level conversation.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Students clearly understand how well they are progressing (or not).</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Students are interested in learning activities in the class.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Comments

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ture of current performance and an accurate and powerful way of measuring progress. While the video camera is only one part of any effective approach to professional learning, teachers and coaches can benefit from turning the camera on themselves to see how well they are performing.

**REFERENCES**


Jim Knight (jknigh@ku.edu) is research associate at the University of Kansas Center for Research on Learning.
### WATCH YOURSELF

**DATE**

After watching the video of today’s class, please rate how close your instruction is to your ideal in the following areas:

<table>
<thead>
<tr>
<th></th>
<th>Not close</th>
<th>Right on</th>
</tr>
</thead>
<tbody>
<tr>
<td>My praise-to-correction ratio is at least 3-to-1.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I clearly explain expectations prior to each activity.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My corrections are calm, consistent, immediate, and planned in advance.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My questions are at the appropriate level (know, understand, do).</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My learning structures (stories, cooperative learning, thinking devices, experiential learning) are effective.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I use a variety of learning structures effectively.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I clearly understand what my students know and don’t know.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

**Comments**

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