Leveraging Video for Learning

From the one-room schoolhouses of the past to contemporary classrooms carved up by grade and subject area, U.S. K-12 schools have a history of entrenched teacher isolation. Sociologist Dan Lortie once described the teaching profession as an "egg crate" ecosystem, in which classrooms, with a single teacher and set of students, are stacked on top of one another like egg crates. This structural separation, in which teachers develop their skills primarily through individual trial and error rather than through observation and collaboration with others, has been a major barrier to improving instruction.

Educators are now attempting to increase the extent to which teachers are observed, observe each other, and receive support from colleagues. Yet school and district leaders face significant structural impediments: Teachers are busy and cannot float between classes to observe during the day; administrators may not have the time to observe, give robust feedback, and broker peer support among teachers; and teachers rarely receive expert feedback in their own content area.

If used well, video technology can help overcome these barriers and accelerate the process of opening up instruction to observation and feedback.

IN THIS SECTION:

- How can teachers use video to accelerate effective self-analysis?
- How can video be used to connect teachers to peers for feedback and coaching?
- Under what conditions can video improve evaluative classroom observations?

Based on our work on the **Best Foot Forward project**, a study of video technology in classroom observations, here we detail five ways to use video to reflect, collaborate, and end teacher isolation: self-reflection, peer collaboration, virtual coaching, evaluation, and video libraries.

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"The reflection that I did myself, when I videoed, offered me more opportunity for growth than anything an outsider could do for me. Watching my kids, what went on in my room, how I handled it, and things I said—that was more important than any sit-down that I could have with anybody [else]."

Best Foot Forward teacher, North Carolina (2013)

Approach 1: Video for Self-Reflection

Structured self-reflection plays an important role in teachers' professional growth. Teachers may enter the profession with preconceived ideas about what good instruction looks like based on their previous experiences as a student. This leads to imitative, rather than intentional, practice. Systematic self-reflection, on the other hand, sharpens the intentionality of the practitioner and allows him or her to address the unique challenges of the classroom.

Education researchers tend to distinguish "reflection in practice" from "reflection on practice" (Schön, 1983). The process of reflecting in practice refers to in-the-moment or situational thinking. Reflecting on one's practice requires remembering past actions, evaluating what did or did not work, and using those judgments to drive a theory of action for future practice. Both are important approaches, but they suffer from three inherent flaws that make it difficult to translate self-reflection into meaningful changes.

- 1. The Omniscience Flaw: Reflection in practice requires teachers to effectively address whatever provokes them in the moment, yet sometimes the challenges that require action are not the ones teachers see or hear. For example, while working with a small group or helping an individual student, teachers may miss off-task students in other corners of the classroom. To maximize reflection in practice, teachers need extraordinary, all-knowing powers. While many teachers have superhero-like qualities, omniscience is not one of them.
- 2. The Symptom-Treatment Flaw: Another inadequacy of situational thinking is that it does not provide time for the consideration of root causes. Because teachers must react in the moment, the critical pause required to conduct an "act of search or investigation" is not possible (Dewey, 1910).
- 3. The Recollection Flaw: Reflection on practice relies on the accuracy of memory. Educators must recall the details of prior lessons to maximize their diagnosis, but those details often fade in memory. Reflection is best when specific, yet memory can only deliver an adumbrated version of what happened in any given hour.

To maximize the reflection process, educators need to analyze specific challenges (both noticed and unnoticed) and have time to consider the best course of action. Unfortunately, time and omniscience are in short supply. Better information can translate into better self-analysis. Here is how video self-analysis can help address each flaw:

The Omniscience Flaw	Observing self-taped lessons allows teachers the opportunity to notice challenges that are otherwise difficult to perceive while teaching.
Symptom- Treatment Flaw	Video allows educators to press pause and ponder the root causes of problems.
Recollection Flaw	Teachers can re-experience the specific details of what happened during a lesson, rather than rely on memory alone.

Of course, watching oneself on video is not an automatic ticket to professional growth. Consider how these Best Foot Forward participants experienced seeing themselves on video for the first time:

Teacher A: I saw every little kind of weird thing, like that I swung my keys around when I talked for 10 minutes. You can see every little thing that you wouldn't recognize.

Teacher B: The first 10-minute segment I watched, I was like, "Oh, I do that? Really? I sound like that?"

Teacher C: ...in the beginning, I was really focused in on myself. Then, going through I [started] listening to the conversations that were taking place.... That was really special for me to hear.

Leaders should provide support for teachers to engage in intentional, structured self-analysis

Evident in these quotations are three common mistakes when watching one's self on tape.

- Information overload. Paying attention to all details, like keys swinging or the number of utterances of "um." Distractions are important to note, but it takes an enormous amount of intention to filter out less significant details and focus on teaching and learning.
- 2. Excessive self-criticism. Teachers are their own worst critics because they care deeply about their craft. Watching oneself can be extremely challenging if nitpicking becomes the dominant stance.
- 3. Watching the wrong film star. Self-reflection doesn't mean making the teacher the star of the film. Student action must play a prominent role in a teacher's observation strategy. When Teacher C moved past watching herself and started listening to her students, she gained new insights into student thinking and behavior.

To address these mistakes, leaders should provide support for teachers to engage in intentional, structured self-analysis. This structured protocol can help teachers look past unimportant details, such as what they are wearing or how many times they use the word "like," and focus on the students. If used well, video can help teachers reflect on their in-themoment practice, identify important issues that went unnoticed while teaching a lesson, and take the pause needed to reassess student needs. •

RECOMMENDATIONS

- 1. Provide resources for teachers to watch themselves without being distracted by insignificant details. Teachers and instructional leaders can begin effective self-reflection using a focused protocol such as our <u>Teacher Video Selfie</u> module and our <u>Self-Analysis Rubric</u>, in which they practice filtering out distracting details and focus on students.
- 2. Replace generic self-assessments in teacher evaluation systems with a video self-analysis process. Teachers could keep the videos private and submit only a written reflection to fulfill their requirement.
- **3. Nudge video self-analysis.** Leaders might recommend video self-reflection as a way for teachers to monitor development areas and practice specific skills following an observation.

VIDEO REFLECTION TOOLS

TOOL ID	RESOURCE	DESCRIPTION	INTENDED AUDIENCE
L1A	Teacher Video Selfie Module	A guided instructional module for teachers to practice effective self-reflection	Teachers
L1B	Self-analysis Rubric	A simple rubric for teachers to assess whether they've filtered out noisy or distracting details to focus on what matters and make the most of self-analysis	Teachers

The most effective evaluation we get is from someone who teaches our subject; a peer is going to give that."

Best Foot Forward teacher, North Carolina (2013)

Approach 2: Video for Peer Collaboration

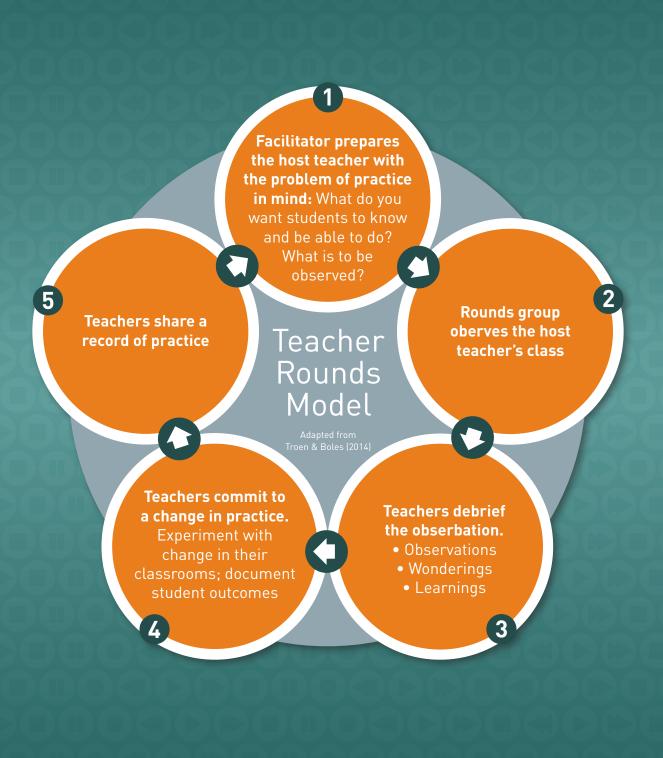
Teachers' participation in collaborative discussion is predictive of changes to teachers' instruction (Parise, 2010). Improvement can also be predicted by the extent to which teachers seek instructional advice from their colleagues (Sun, 2014). Yet it isn't easy to facilitate peer collaboration, given that teachers are responsible for instructing their own students during the school day.

The introduction of video technology in a school or across schools may make it easier for teachers to observe their colleagues' instruction and give or receive instructional support. With easy access to video cameras, teachers can record their lessons for other teachers to view at their convenience or in organized peer learning communities.

A video club is one context in which groups of teachers analyze one another's teaching. When Elizabeth van Es (2012) studied a group of fourth- and fifth-grade teachers who came together once or twice a month to examine classroom videos, she found that the process afforded increasingly substantive conversations around student-student, teacher-student and whole class interactions. One important finding was that over the course of the video observation collaborative, teachers moved from general judgments of the lesson to more specific, evidence-based thinking as result of club participation. By solving problems together, they effectively met their individual goals and deepened their relationship with the curriculum.

Teacher Rounds provide another way to use video in peer-to-peer teacher collaboration (Troen & Boles, 2014). This model is based on medical rounds that have long been used by physicians to develop their skillset and crowdsource feedback from fellow professionals. In this process, teachers start by observing one another in person. Then they meet to discuss the lessons, and teachers commit to making a specific change in practice. The cycle closes with teachers videotaping their implementation of these changes and sharing that video with colleagues. In this way, video is used as an accountability mechanism for making feedback actionable.

In each model, there is a designated peer facilitator, a well-structured dialogue or protocol for discussion of instructional practice, and a teacher-identified challenge or goal. In order for this to work, teachers must give as much helpful feedback as they receive. •



RECOMMENDATIONS

- 1. Education leaders should consider promoting opportunities to join or start a video club or teacher rounds process. These opportunities can contribute to a "culture of continuous improvement" in which teachers grow through formative, low-stakes feedback.
- 2. Leaders ought to consider incentivizing teachers' participation. For example, districts leaders might award teachers who participate in video observations with professional learning units. Because these activities require added time, allowing teachers additional planning time will also attract teachers who might otherwise feel too busy to join the group.

Video technology in a school or across schools may make it easier for teachers to observe their colleagues' instruction and give or receive instructional support.

VIDEO COLLABORATION TOOLS

TOOL ID	RESOURCE	DESCRIPTION	INTENDED AUDIENCE
L2A	Effects of a Video-Based Teacher Observation Program on the De- privatization of Instruction: Evidence from a Randomized Experiment	Research findings from the Best Foot Forward project regarding how video technology may be an effective tool for efforts to improve instruction by increasing peer observation and support	District administrators, school administrators, instructional leaders, teachers
L2B	Video Club Start-Up Guide	Considerations to start building a video club in your school or district	School administrators, instructional leaders, teachers
L2C	Rounds: Puts Teachers in Charge of Learning	A description of the protocol and requirements for the Teacher Rounds process	School administrators, instructional leaders, teachers
L2D	Video Club Research Summaries	Summaries of additional research about the use and structure of video clubs in schools across the country	District administrators, school administrators, instructional leaders, teachers

"[My coach said,] "You could try this, I noticed this, and this worked for me." Then I didn't have to go into another teacher's classroom hoping that I might see the answer to my problem—I had a specific behavior or task that I could do that would change immediately."

Best Foot Forward teacher, Georgia (2014)

Approach 3: Video for Virtual Coaching

In the information economy, technology makes it increasingly possible for personnel to work and be managed in a virtual office environment, yet there is something inherently "live" about teaching. Like other live-action professions, such as medicine, law, or sports, teaching involves improvised personal interactions that can be difficult to view and support from afar. Video technology may help bridge that distance to make virtual coaching possible.

In the education sector, virtual coaching occurs when an observer and teacher do not share the same physical space for instructional feedback. Rather than relying on the analysis of secondary artifacts, a virtual coach can get a direct glimpse of a teacher's classroom when a video lesson is shared online. Many platforms now allow the sharing of video and the ability for coaches to annotate that video with questions and commentary at specific time-stamped moments of the lesson. The teacher can then rewatch his or her lesson alongside contextualized feedback.

The virtual coaching process affords teachers several benefits. First, teachers are able to get an outside perspective that is difficult to capture when in-school observers already have relationships with the students, parents, and teachers in the classrooms they observe. While no observation—virtual or in-person—is completely objective, distance from the context may help reduce personal bias and give teachers a fresh perspective.

Additionally, virtual coaching can connect teachers with more content-specific feedback. Principals cannot possibly be specialists in every subject area. Imagine a principal, a former middle school math teacher, giving feedback to a second-grade literacy teacher. While there are many important things that this administrator can do to help a teacher develop, fluency instruction might not be one of them. Video technology makes it possible to connect teachers with virtual experts in their own subject areas and get feedback on their pedagogical content.

Virtual coaching can have very real benefits for teachers, but there are three inherent challenges in providing feedback from afar.

- 1. Misinterpretation. Without body language to read and respond to, there is a heightened risk of confusion, particularly if feedback is delivered in writing alone. This can lead to a contentious post-observation conversation.
- 2. Context. Prior to virtual coaching in the Best Foot Forward project, many teachers expressed concern about an external coach not knowing the particulars of his or her classroom or curricular context.
- 3. Accountability. Without a personal relationship with an observer, accountability to submit a videotaped lesson to an observer or to respond to his or her feedback may be more difficult to establish.

Knowing these challenges, there are several simple steps that leaders and coaches can take to make the experience successful:

Diagnose needs. Use the needs of the participating teachers to drive the hiring of your coaching experts. Ask: Do we have a shortage of specialists in one particular area or grade band? Are we seeing slow growth in a particular tested subject area or a domain in the observation data?

Choose the right coaches. There are two approaches to finding great coaches insourcing or outsourcing. In the insourcing model, districts can use data (e.g., growth scores, student surveys, or observation evidence) or principal nominations to identify high performers in the areas of need and honor their expertise through an offer as an afterschool virtual coach. In the outsourcing model, districts can extend capacity by contracting with an external provider to hire and manage matched experts. In both cases, it is important to select teachers or former teachers with evidence of effectiveness and strong communications skills, and to provide coaches training in both observing and feedback delivery.

Distance from the context may help reduce personal bias and give teachers a fresh perspective.

In choosing between these models, leaders should examine the costs and benefits of both models in terms of budget and capacity, but also tap teacher stakeholders to understand the comfort level with internal versus external coaches. Some teachers will prefer the absolute anonymity of a third-party coach while others will prefer a teacher who understands the expectations and curriculum in his or her context.

Require a one-on-one kickoff call. Imagine getting critical feedback from someone you have never met. Your first instinct might be to object to that person's ability to deliver judgment on your professional practice. An introductory call is critical, so that professionals can meet, discuss their backgrounds, and establish a collaborative working style before beginning the video observation process. Documenting a teacher's self-identified goals will also help the teacher select the right videos for coaching.

Include a coaching conversation. Written feedback cannot replace the power of a real dialogue. Coaches should schedule a follow-up phone call or video chat after video comments have been shared with the teacher.

Embed video clips in the conversation protocol. The video is not just a tool for observation. It is also a tool for learning and coaching. In Coaching with Video Vignettes, you will find four high-leverage strategies that make the most of coaching conversations through guided noticing: narration, questioning, coding and counting, and pivotal pausing.

Keep scoring secondary. In the Best Foot Forward project, teachers expressed greater receptivity to feedback when virtual coaches did not share scores before a coaching conversation (or assign scores at all). If scores are being collected (e.g., in an evaluative conversation), it is better to keep them private until after the coaching conversation. Not only is the conversation an opportunity to gather evidence that wasn't easily observable on video, but when a score is apparent before a coaching session, it changes the focus of the conversation from practice to measurement.

Close the cycle with another video. The final component of any coaching cycle should be the submission of another video in which the teacher showcases the implementation of a "next step."

These guidelines will help address the challenges of remote coaching in a school environment and help teachers work toward a positive and useful professional development experience. •

RECOMMENDATIONS

- 1. Select experienced teachers in your area of need. Video technology allows people in different places to collaborate in real time, so you can focus coaching on targeted growth, rather than convenience.

 Bringing in an expert with specific content knowledge can help isolated teachers expand their practice.
- **2. Create routines for a solid coaching relationship.** A positive, productive relationship between a coach and teacher is central to successful coaching and can be achieved by an early conversation about goals and a score-free post-conference dialogue.
- 3. Use video to demonstrate change in practice as well as diagnose areas of need. After a teacher and coach identify actionable next steps for improvement, the teacher can videotape those next steps and share them with the coach as a springboard for discussing the effectiveness of new strategies in the classroom.

REMOTE COACHING TOOLS

TOOL ID	RESOURCE	DESCRIPTION	INTENDED AUDIENCE
L3A	Coaching with Video Vignettes: Four Guided Noticing Techniques	Four strategies to help teachers have an aha moment in virtual coaching experiences	Teacher coaches, teachers, school administrators
L3B	Coaching Tip: Dealing with Distractions While Using Video Models	Tips from a Teachstone blogger about focusing the feedback conversation while using video	Teacher coaches, teachers, school administrators
L3C	Helping Teachers See Themselves	Reflections from TNTP on effective virtual coaching based on experience working with Best Foot Forward participants	Teacher coaches, school administrators, district administrators
L3D	Introductory Coaching Conversation Protocol	Tools for holding introductory and regular coaching conversations, courtesy of the MQI Coaching Project at the Center for Education Policy Research at Harvard University	Teacher coaches, school administrators, district administrators
L3E	Coaching Conversation Planning Guide		
L3F	Collaborative Coaching Log		
L3G	Vendors for Remote Coaching	A list of companies and organizations that provide remote coaching services for teachers*	District administrators, school administrators

^{*}Please note that this does not constitute an endorsement of any products or services.

"Sometimes I've been in evaluations where I'm like, "You saw that? What are you talking about? I have no idea what you're saying," but because of video, that was absent from our discussion."

Best Foot Forward teacher, Georgia (2014)

Approach 4: Video for Evaluation

At first, the idea of using video technology in an evaluation sounds very much like Big Brother, but in the Best Foot Forward project, we learned that a well-designed process can actually give teachers more control over what administrators see compared to in-person observations. Initial findings indicate that video contributed to perceptions of greater fairness in the evaluation process as well as greater satisfaction with feedback and the process overall. The following considerations are intended to aid education leaders when designing a video evaluation process.

Let teachers choose the video. In the formative coaching process a teacher might share a significant classroom dilemma, but in an evaluation, teachers want to showcase their best work to their managers. This may be difficult in surprise, in-person observations: A teacher may become more nervous or aware of the evaluative gaze while teaching, thereby altering his or her practice; the day's planned activity may not represent a teacher's typical instruction; or an administrator may only be present for part of a lesson and miss student demonstrations of understanding at the end of the hour. If teachers control the camera, they are able to choose a videotaped lesson that they believe represents a comprehensive view of their best work.

Not only does this process increase teacher agency in evaluation, but it also encourages teachers to rewatch several lessons and contemplate what constitutes effective, evaluation-worthy instruction before choosing what will be submitted to the administrator. In

other words, it builds in more self-reflection than the typical in-person observation process and better prepares teachers for an equal part in the post-conference conversation.

One common objection to giving teachers control of the camera is that some teachers might put on a "dog and pony show." However, in the Best Foot Forward project, we found that there were no significant differences in teacher and administrator perceptions of lesson authenticity between those using videos and those being observed in person. Teachers' mean scores, as assigned by third-party raters, were indeed higher on self-selected videos compared to videos that teachers did not select for evaluation. However, the scores on videos that teachers selected for evaluative observation were still highly correlated with the scores on videos that were not selected for observation, maintaining ranking scores between teachers. In other words, teachers put their "best foot forward," but this did not

fundamentally change the distribution of observation scores between teachers. More information about these findings can be found in the Best Foot Forward research brief.

Use video observations in tandem with inperson observations. When we polled our study participants, we found that the majority of teachers, whether or not they actually participated in video observations, would support video to replace in-person observations entirely. More than two thirds supported using videos to replace some in-person observations. Yet administrators expressed difficulty learning about students through a video interface. In focus groups, they discussed how much they missed being in the classroom. Ultimately, we recommend using video alongside inperson observations. For example, in-person walkthroughs throughout the year give administrators a chance to collect evidence over time and support teachers and students more frequently whereas full-length observations might be conducted via video at more convenient times of day, when class is not in session and principals can fully examine instruction. Another approach would be to let teachers submit lessons that demonstrate growth in areas identified in prior live observations.

Consider involving normed external observers.

We learned that the use of video did not save administrators' time; in fact, administrators who provided feedback using video reported spending more time on the observation process as a whole than the control group. When we dug into this finding, however, we learned that the increase was driven by time spent watching instruction rather than doing paperwork. In other words, the increase in total time was driven by instructional activities rather than compliance.

One way to make video observations more efficient is to involve outside raters. For example, one district in Georgia allows outside raters to score and tag a video, but then

After participating in Best Foot Forward, teachers who had used video were more likely to support replacing some or all of their in-person observations with video observations.





principals approve the final scoring. In this model, principals watch only preidentified, high-leverage moments in the lesson. It preserves final judgment for the administrator while affording them more time and support by giving them access to another expert's determinations.

Ensure familiarity with working technology first. When classroom observations have stakes attached to them, the last thing teachers want to worry about is whether their technology works, and the last thing administrators want to think about is whether they will be able to stream a video on the district network. The Turnkey Technology section of this toolkit includes considerations and principles to help lessen technological difficulty throughout the process.



RECOMMENDATIONS

- **1. Let teachers choose videos for observation.** When teachers put their best foot forward, they are able to showcase their best work to their managers. Research shows that this approach increases perceptions of fairness in an observation.
- 2. Use video observations in tandem with in-person observations. Administrators' presence in classrooms is important for many reasons; video can help shift the quality and focus of principal time in classrooms. Since the two need not be mutually exclusive, consider what types of evidence are best collected by video compared to in-person.
- 3. Consider involving normed external observers to create more administrator capacity, increase the reliability of the final evaluation score, and give teachers more content-specific feedback about their practice.
- **4. Ensure familiarity with working technology first.** Nobody should worry about a poor evaluation because a camera was not working. Be sure to read our <u>Turnkey Technology</u> section, so that the tools you choose minimize malfunction and maximize success.

VIDEO EVALUATION TOOLS

TOOL ID	RESOURCE	DESCRIPTION	INTENDED AUDIENCE
L4A	The Best Foot Forward Project: Substituting Teacher-Collected Video for In-Person Classroom Observations	Information about the Best Foot Forward project and how video stacked up against in-person observations in an evaluation system regarding both improvements and challenges	Departments of education, district administrators, school administrators, instructional leaders, teachers
L4B	The Power of Shared Evidence	PowerPoint presentation from the Best Foot Forward project focusing on the mechanisms by which video improves the feedback conversation in an evaluation	Departments of education, district administrators, school administrators, instructional leaders, teachers
L4C	When Teachers Choose: Fairness and Authenticity in Teacher-Initiated Classroom Observations	PowerPoint presentation from the Best Foot Forward project focusing on the impacts of teacher video choice on the fairness and reliability of observation scores	Departments of education, district administrators, school administrators, instructional leaders, teachers
L4D	A Clearer View of the Classroom	A glimpse at video as an advanced evaluation tool offering more depth to teachers and administrators, from District Administration	District administrators

Approach 5: Build a Video Library

Many school districts train observers to measure performance using stock videos of instruction. We often hear complaints from educators about how these videos do not reflect the challenges, demographics, curricula, and standards of effectiveness that are particular to their context. Once teachers begin collecting videos for formative or evaluative purposes, leaders have an opportunity to build a pedagogical video library that helps establish a common vision of what excellent, rigorous instruction looks like in their own context. This can be particularly meaningful for new teachers, looking for exposure to best practices. It also gives school leaders an opportunity to celebrate excellent teachers by showcasing their work and holding them up as exemplar practitioners. In this section, and in Choose the Right Technology, you can find tools to identify platforms that will allow you to effectively build this library.¹ •

RECOMMENDATIONS

- 1. Determine your purpose. Are you organizing your videos along organizational priorities (e.g., Common Core instruction) or your local rubric? For what purpose do you need exemplars? For example, knowing that examples of differentiation are a particular area of need in the district will help drive the collection of videos for your library.
- 2. Ask observers and teachers who watch in-district video to nominate great teachers and exemplar video clips. Building central capacity to watch hours of footage from across a school district is a costly endeavor. Tap the observers already watching video to identify examples of excellence. There are also a growing number of publicly available video libraries to draw from as you build your own local resources, a selection of which can be found in this toolkit.
- 3. Ask teachers for permission. Teachers using video for coaching purposes may not be ready to share their videos with the entire district, even if it's an excellent example of instruction. Consider creating incentives for video sharing, including publicly recognizing teachers who are willing to open up their classroom for the betterment of all district teachers. You can learn more about protecting teacher privacy in the Cultivating Trust section of the toolkit.
- 4. Build capacity to master-code filmed instruction to your observational tool and curricular standards. Ultimately, you want to build a searchable library that teachers can use when building instructional units and need great ideas, and that coaches or administrators can use when developing teachers in particular areas of need.

VIDEO LIBRARY TOOLS

TOOL ID	RESOURCE	DESCRIPTION	INTENDED AUDIENCE
L5A	<u>Libraries of Videotaped</u> <u>Instruction</u>	A list of online collections of classroom video*	Teachers, instructional leaders, school administrators

^{*}Please note that this does not constitute an endorsement of any products or services.

¹ This section was developed in collaboration with Tamika Guishard of <u>B. Good Productions</u>, pedagogical video consultant and former filming specialist at DC Public Schools