



# BRIDGING THE DISTANCE

ONE-ON-ONE VIDEO COACHING  
SUPPORTS RURAL TEACHERS

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**C**oaching is an increasingly popular and promising method of professional learning, but unfortunately, many teachers do not have access to high-quality coaching due to geographic and financial constraints. Technology offers an opportunity to increase access to coaching, especially for educators in isolated rural areas.

Research shows video is useful in teacher education and professional learning to focus on moments of practice (Gaudin & Chalies, 2015;

Knight & van Nieuwerburgh, 2012). It can show teachers a clear picture of their instructional practices and provide documented, objective evidence of teacher moves and student responses that are often different than what teachers subjectively perceive.

Recognizing the potential of technology for coaching in the rural areas where we work, we developed an online coaching model in a joint venture between the University of Rochester (New York) and the University of Idaho, with funding from

the National Science Foundation.

We designed this model, which was grounded in the Standards for Professional Learning (Learning Forward, 2011), to provide rural mathematics teachers one-on-one video coaching with expert mathematics coaches. We have found that the model, which is being implemented in New York and Arizona, has been feasible and well-received by teachers, even offering some benefits not possible with traditional coaching.

For example, one participating

teacher said, “I get observed all the time ... [but this] was a much better way of having me focus on what I’m doing in the classroom.”

## DESIGN CONSIDERATIONS

As we began this work, we based our online model on previous experiences with content-focused coaching (West & Staub, 2003), which uses these coaching cycle steps: a prelesson co-planning discussion, a co-taught lesson, and a post-lesson reflection discussion focused on observations of student learning and implications for future instruction.

Throughout our design process, Learning Forward’s Standards for Professional Learning (Learning Forward, 2011) supported our thinking as we transitioned our face-to-face coaching model to fully online. (See sidebar at right.)

Translating this model to an online environment meant overcoming some obvious challenges, such as the inability to co-teach. To address these challenges, we determined which parts of the coaching cycle were best suited for synchronous or asynchronous communication.

Hrastinski (2008) has identified that asynchronous activities allow for deeper reflection on complex concepts and allow participants to work at times that are more convenient for their personal schedules. Synchronous activities, on the other hand, lend themselves to building relationships, planning tasks, and more committed and motivated interactions due to quicker response times. These considerations led us to develop our online video coaching model (see diagram on p. 69).

## TECHNOLOGY OVERCOMES CHALLENGES

Selecting the right technology tools helped us make high-quality, standards-

## HOW LEARNING FORWARD’S STANDARDS GUIDED OUR WORK

The Standards for Professional Learning (Learning Forward, 2011) guided the development of the online video coaching model, especially the following standards:

### Learning Communities

Because our model took place in an online space, coaches had to be cognizant of, and explicitly work toward developing, safe, collaborative relationships. We developed norms of collaboration and relational trust by encouraging coaches and teachers to meet informally online before their first coaching cycle.

This initial meeting helped the teacher and coach get to know each other by inquiring about each other’s background, the background of the students in the class, the curriculum, and their goals for their coaching work. In subsequent coaching meetings, coaches continued to be explicit about their focus on the teacher’s goals for improving instructional practices and worked together to construct those goals.

In addition, coaches frequently reminded teachers that they were there as nonevaluative support for the teacher to reflect on and improve his or her practice.

### Resources

Because many rural districts are strapped for personnel funding, we made sure that the components of the online video coaching sessions could take place during teachers’ planning time or outside of their school day so that we did not draw on district resources for substitutes.

We used Zoom and Google, as no-cost platforms, for communicating and sharing documents. And because time is a precious resource, especially in rural communities where many teachers often hold responsibilities in addition to teaching, we prioritized schedule flexibility with asynchronous meetings and video viewings.

### Learning Designs

We grounded our coaching model in research about online and video coaching and face-to-face coaching (e.g. West & Staub, 2003). We capitalized on the asynchronous nature of the online model to incorporate feedback and reflection, which coaching research shows are essential.

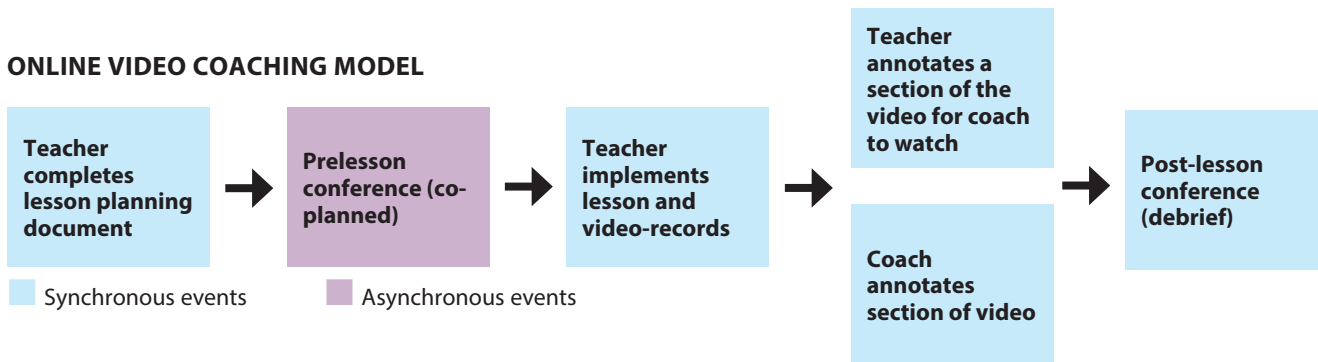
### Implementation

The ultimate goal of the model is to support continuous improvement to allow “educators to move along a continuum from novice to expert through application of their professional learning” (Learning Forward, 2011, p. 44). The coaching provided is job-embedded, long-term, and allows for follow-up and new cycles to build on past ones.

### Outcomes

There is a constant focus on both student and teacher learning outcomes. Throughout the three phases of the model (planning, implementation, and reflection), discussions and practices emphasize student learning of mathematical ideas represented in national and state standards. To get to these outcomes, the teacher and coach co-construct detailed goals for the teacher’s knowledge and practices.

### ONLINE VIDEO COACHING MODEL



based professional learning possible in the online environment.

We addressed the challenge of sharing materials by using Google folders, where teachers could post lesson plans and other materials before the prelesson discussion and the coach could review them.

For the prelesson discussion, we used a videoconferencing software, Zoom, that allowed coach and teacher to see each other as they talked (see screen shot at right) and share screens if they wanted to simultaneously view documents in synchronous sessions.

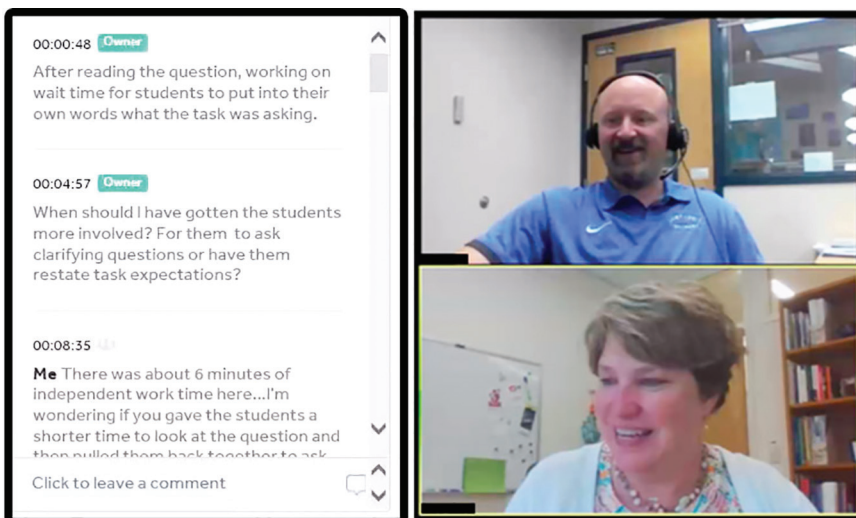
The prelesson discussion involved coach and teacher engaging in lesson design and task selection focused on identifying and unpacking the mathematics; anticipating likely student strategies, conceptions, and misconceptions; and planning for opportunities for student engagement.

During the discussion, the Google folder and files allowed the coach and teacher to collaboratively design the lesson by viewing and editing the documents synchronously.

In the third phase of the coaching model, the teacher video recorded the planned lesson using a Swivl robot with a paired iPad application. We synched the Swivl robot with a marker that recorded the audio as the robot rotated and pivoted to follow the marker (usually worn by the teacher) around the room. Additional markers could be used to audio record students as well. When the recording ended, the video automatically uploaded to a Swivl library that both coach and teacher could access when convenient.

Before the post-lesson discussion,

### IMAGES OF ONLINE POST-LESSON CONFERENCE



Coaches Cynthia Callard and Ryan Gillespie work together using Zoom to review comments from a video coaching session.

the coach and teacher independently viewed the video and recorded annotations at noteworthy moments. Video afforded teachers and coaches the opportunity to pause, review, and rewatch segments of the lesson, and a feature of the Swivl library allows coach and teacher to pause the video and type a comment or question about these noteworthy moments in the lesson. This annotation feature also allowed the viewer to navigate the video easily because the user can click on an annotation to be taken directly to that segment of the video.

The final component of the coaching cycle — the debriefing discussion — occurred synchronously, after the teacher and coach had each viewed and annotated the video. But before the discussion, the teacher uploaded student work to the shared Google folder, which, combined with

the video and annotations, provided evidence to support a discussion focused on student learning.

We found that the specific, detailed comments of the annotation feature of the software helped coaches and teachers prepare for the conversations and served as a catalyst for many rich coaching conversations.

Of course, the online nature of the coaching came with challenges as well as benefits. Some teachers were uncomfortable being videotaped. It was often difficult to hear students or see their work in the videos. In addition, the asynchronous nature of the coaching meant a lack of opportunities for real-time feedback or modifications in practices during the lesson, which we had used in previous coaching, and challenged us to find new ways of providing the feedback and engaging teachers in reflection.

**LOOKING FORWARD**

Our goal is to expand our online coaching program to reach more teachers in rural settings, as well as urban and suburban districts. We believe that online coaching can be effective in supporting teacher change and provides access for teachers to reflect on their practice in new and different ways.

The success of this model, with a focus on synchronous opportunities, raises the bar for the professional learning community to continue seeking new and innovative ways to improve access for teachers to high-quality professional development.

By removing geographic barriers, increasing flexibility in scheduling, and providing one-on-one support for teachers with content specialists from a distance, this model demonstrates new ways to partner with districts to increase

their ability to support teachers.

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