

Taking Clinical Observations Digital

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In March 2020, as I (Kelly, the faculty member who oversees student teaching) was enjoying the warm breeze of Tampa Bay kayaking with friends on Spring Break, my teacher candidates (TCs) who were completing their clinical experience began panicking. Their placement schools had announced a pivot to remote instruction the very next week. In the remaining month of their experience, these TCs, along with their mentor classroom teachers, had to determine how to continue providing instruction in a remote environment and complete their clinical experience and certification requirements. We were lucky. Our partner schools allowed our TCs to continue working with mentor teachers and students in remote learning environments. We were also lucky in that our TCs had completed three pre-clinical experiences prior to their clinical experience, so we had enough evidence to recommend them for certification despite the shortened clinical experience.

Despite how lucky we felt, we knew that, like other teacher education programs, we needed to use what we learned in the spring to develop strategies for supervision of clinical experiences in the fall. I had attended a session at the 2020 Association of Mathematics Teacher Educators (AMTE) conference that included discussion of digital platforms in teacher education. Drawing on that knowledge and conversations with local colleagues, I began looking into platforms that would not replace traditional clinical experience supervision but could be used to enhance supervision in the long term and provide appropriate support structures for our current teacher candidates (AMTE, 2017). In response to this need, the Mary Frances Early College of Education at the University of Georgia provided all programs with access to GoReact (www.goreact.com). Although access was provided, our program did not initially use it for student teaching supervision.

Digital Supervisory Tool

GoReact¹ is a digital platform in which users can record or upload videos and provide feedback on those videos. That feedback can be in a variety of formats, such as written, audio-recorded, or video-recorded and also provided at specific, timestamped moments in the video or as general feedback at the end of a comment screen. Additionally, GoReact allows those giving feedback to create custom markers that can be used to quickly tag moments in the video (see Figure 1). TCs are able to read the feedback and respond with any comments or questions of their own. Figure 2 shows a screenshot of the feedback screen in the GoReact platform.

¹ There are a large number of uses of GoReact in teacher education. We have limited our discussion to how we utilized the platform in student teaching.

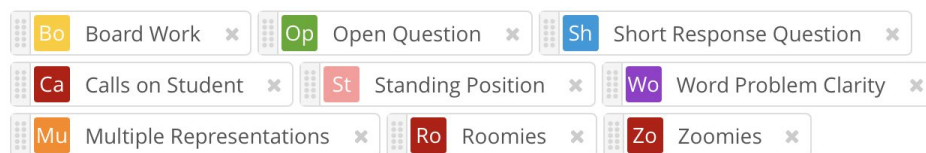


Figure 1. Sample GoReact Markers

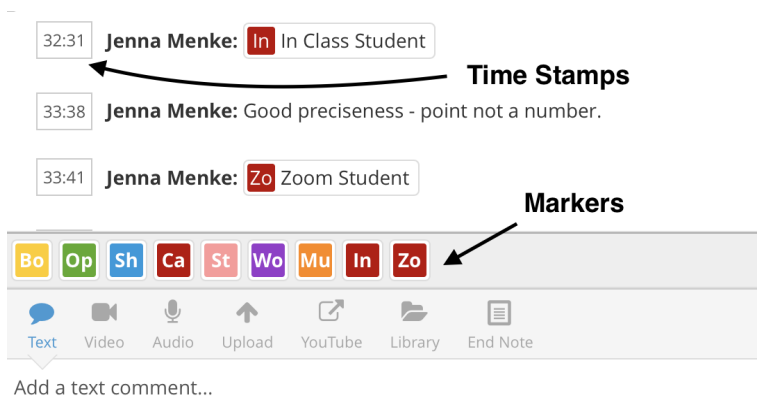


Figure 2. Sample GoReact Feedback

How a Supervisor Used the Digital Platform

This fall, I (Jenna, a doctoral student in mathematics education) served as a supervisor of four TCs in the secondary mathematics education program during their clinical experience. We communicated on a regular basis to discuss their daily journals, weekly lesson plans, and focused detailed plans. We also met at least bi-weekly to discuss how things were going in their placement classrooms. TCs in the program are observed by their supervisor on at least three occasions, with pre- and post-observation meetings with the TCs and, ideally, their mentor teacher. Conducting these observations proved challenging for a variety of COVID-19 related reasons. Many of our local schools began with or transitioned to fully remote instruction. Those with in-person instruction limited the number of people in a classroom at any given moment. Even if no policies were in place, I worried that I might unknowingly bring COVID-19 into the school, or that I might become infected and transmit the virus to my loved ones or to those at other schools. Most pre- and post-observation meetings could be done over remote conferencing platforms, and because many schools were already using a video conferencing platform for instructional purposes, we, as supervisors, could join those meetings to conduct observations, too. However, this observation strategy proved insufficient due to poor internet connections either at the schools or in the supervisors' workspaces. So, I turned to GoReact to complete my observations.

Digital Platform Uses

We used GoReact for multiple purposes this semester, with plans for other uses in the future. First, we used GoReact for live observations. Like with any video conferencing platform, TCs set up a phone or computer to live-stream and record their classes while they were

teaching, and I observed in real time from my home. Observing lessons from home eliminated long travel times, vital time that I as a graduate student could use for other responsibilities, which seem to be even more time-consuming during the pandemic. During these live observations I could select markers quickly or type short comments. When leaving feedback on a live-recording, the video does not stop while typing comments, so I often left short notes that I returned to later and expanded upon, much like one does when physically present in the classroom. GoReact allowed me to choose when I wanted to publish the comments for TCs to review, so I typically waited to publish comments until I had expanded upon my brief notes. During post-observation conferences, I was able to point to what was said or done by the TC at specific moments in the lesson. On occasion, these meetings were rushed due to the schedules of the TCs and mentor teachers; however, having specific timestamped notes in GoReact allowed the TCs to see and respond to any feedback we did not attend to during our meeting.

In addition to live recordings, TCs uploaded videos² of lessons to GoReact so that I could watch and discuss the lessons later with them. This proved helpful in numerous circumstances. As our schools' schedules remained fluid, with delivery formats, quarantines, and bell schedules frequently changing, TCs sometimes needed to change scheduled observation times. If I was not available for the new requested time, due to my class schedule or other commitments, the TCs recorded the lesson and uploaded it to GoReact for me to watch later. This was also useful in moments when technology-related problems occurred during scheduled live observations. As one of my TCs said, "It is nice to know that I could record a lesson anytime if I feel like it's going to be great or that I am going to struggle, and [the supervisor] could comment and give feedback on it."

Ordinarily in these circumstances, I would have been concerned that I was unable to provide feedback immediately after the lesson, when the lesson was fresh in the TC's mind. However, because my comments in GoReact are timestamped, the TCs and I could quickly and easily go back and see the exact moment to which I was referring when discussing feedback. Likewise, our TCs also appreciated having this timestamped feedback: "I also do love the fact that I can go back and look at the comments after my lesson whenever I need to and see why exactly you said something [and] where."

Regardless of when I was able to watch a lesson, GoReact provides numerous, flexible tools that allowed me to give feedback as well as to gather data that I needed as a supervisor. One of these tools is a custom marker set (see Figure 1). Markers sit on the bottom of the screen and act as post-it notes with specific phrases that I can quickly add anywhere in a video. I have created marker sets for observations based on what TCs asked me to notice and areas we discussed as needing development. For example, one TC asked me to notice how often he called on students in the classroom and how often he called on students in Zoom, their video conferencing platform. I made two markers (i.e., Roomies and Zoomies) and could quickly click them every time he called on a student. At the end of the video, a final report allowed the TC to

² Any students appearing on screen signed permission forms allowing their appearance on video for the purpose of teacher education.

see the total count of students called on in each space and to make a plan for attending more to the under-recognized group.

I also created marker sets centered around specific data I needed to collect as a supervisor (i.e., evidence of proficiency on professional performance standards). For example, I needed to provide evidence of my TCs' professional knowledge, including their abilities to use precise mathematical language, multiple representations, and students' mathematical ideas. Therefore, I created a marker set with these three items and tagged the videos when TCs demonstrated, or missed an opportunity to demonstrate, their knowledge. I later returned to the lessons to record evidence of these items on the TCs' midterm and final evaluations.

In addition to all of the ways we used GoReact, we are beginning to explore other opportunities. For example, GoReact can be set up so that TCs can give feedback on professional practice. I, as the supervisor, could upload videos of instruction and ask TCs to practice their observation skills by commenting on certain aspects of instruction. Additionally, TCs can be given access to each other's videos to leave peer feedback, thereby creating a professional learning community in which they are able to analyze and reflect on both their own and their peers' teaching (van Es, Stockero, Sherin, Van Zoest, & Dyer, 2015).

Remote Observation Pitfalls

GoReact as a clinical experience observation tool is not perfect. Sometimes there were technical difficulties, such as when one TC attempted to live-record a lesson and despite her device indicating it was recording, I was never able to see the video. We later determined that this problem arose from attempting to record on GoReact while simultaneously casting to Zoom. Another TC explained a second challenge as: "It's a great way to watch ourselves and hear what we are saying when we are at the board teaching but when we walk around [the classroom], I think it loses that benefit." Trying to hear TCs as they moved among socially distanced small groups or individual students, while they also maintained a safe distance, was a challenge. Some TCs carried their recording devices with them while they circulated around the classroom, which allowed me to hear their conversations with students, but this could be clunky and awkward for both the TCs and their students.

Using the Digital Platform for Mathematics Teacher Educator Development

In our program, graduate students like Jenna provide much of the supervision of our teacher candidates' clinical experience. However, as the faculty advisor for the clinical experience, it is my job (Kelly) to provide support for the supervisors, mentor them as developing teacher educators, and assist them when concerns arise with their teacher candidates' performance. In prior semesters, this role has required me to travel to schools to observe instruction when concerns arose, a task that is often difficult due to my heavy teaching load, which has been magnified during the pandemic. Through the use of the GoReact digital platform, like Jenna, I was able to watch live or recorded videos of teacher candidates to aid the supervisors in diagnosing concerns and provide advice to both the supervisors and TCs. As we

move forward, we hope to continue using this tool for observations and feedback for TCs. Additionally, we are considering ways to use GoReact to provide training for university supervisors and mentor teachers so they are better prepared and provide high-quality support (AMTE, 2017) for our TCs during their clinical experiences.

References

Association of Mathematics Teacher Educators. (2017). *Standards for preparing teachers of mathematics*. Author.

van Es, E. A., Stockero, S., L., Sherin, M. G., Van Zoest, L. R., & Dyer, E. (2015). Making the most of teacher self-captured video. *Mathematics Teacher Educator*, 4(1) 6-19.