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"I'm Starved For That": Preservice Teachers' Experiences with Video Analysis

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Abstract: Video self-analysis is a useful tool for teacher education, and while teacher educators often espouse the benefits of its use, the perspectives of preservice teachers who have used this tool have rarely been taken into consideration. Their perspectives can help teacher educators understand what makes video self-analysis tasks more meaningful, authentic, and engaging for preservice teachers. In this study, two graduate student researchers interviewed former preservice teachers who were recent graduates of an initial teacher certification program about their perceptions of video analysis use in the program. The guiding question for the study was, *In what ways did video analysis provide impactful learning experiences for these preservice teachers?* The researchers had worked as university supervisors and course instructors with the preservice teachers in the study. Four participants reflected in hour-long, semi-structured interviews on the effects of using video self-analysis. Results from qualitative coding analysis indicated the benefits of seeing other classroom contexts, leveraging multiple, converging voices for reflection, and curating intentional video footage through planning. Possible implications for instructional design include planning for scaffolded video analysis tasks and cultivating video-based reflection in and for practice.

Keywords: self-reflection, teacher preparation, video analysis



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Introduction

any teachers informally reflect on daily practices like instruction, materials, and interactions with students, in an effort to improve future practice (Beauchamp, 2015). Video self-analysis is well-established as a tool to cultivate reflection in preservice teachers (Kajder & Parkes, 2012; Rickard et al., 2009; Rosaen et al., 2010; Welsch & Devlin, 2006). Our English education teacher preparation program at a large, Southeastern university values and leverages video self-analysis through a series of scaffolded experiences during the practicum and student teaching semesters to promote critical self-reflection practice and growth in our students. Many studies of video self-analysis in teacher education have been conducted to capture the learning experiences of preservice teachers (Gelfuso, 2016; McFadden et al., 2013; Scott et al., 2013) and the potential for evaluation and feedback (Chizhik & Chizhik, 2018; Smith et al., 2020). But few studies consider the perceived benefits from the viewpoint of preservice teachers. Our work highlights preservice teachers' perspectives on the value of video self-analysis. Incorporating the voices of preservice teachers can help teacher education programs strengthen their uses of video by incorporating more experiences that are impactful for students. Drawing on data collected from the 2020-2021 cohort that experienced learning to teach during the height of the COVID-19 pandemic, this project explores the following research question: In what ways did video analysis provide impactful learning experiences for these preservice teachers? As a result, this work can inform English teacher educators how video analysis may strengthen their pedagogical practice by bringing the voices of preservice teachers to the fore as they discuss the strengths and weaknesses of various video self-analysis strategies.

Review of Video Analysis in Teacher Education

The use of video technology in teacher education is certainly not new, and with major strides in the availability and development of video tools in recent decades, teacher education has seen a wide variety of uses in the new millennium (Gaudin & Chaliès, 2015). Most commonly, teacher education programs have used video footage of exemplary practicing teachers to provide a visual database for preservice teachers to watch and reflect on best practices (Barnett, 2006; Hougan et al., 2018; Knight et al., 2004; Lok et al., 2018; Skultety et al., 2017; Superfine et al., 2015; Yadav & Koehler, 2007). These videos can give preservice teachers the chance to learn from experienced teachers without having to find more time, locations, and teachers for in-person observations, and to focus learning on particular pedagogical skills. In addition to pre-recorded videos of experienced teachers, video tools have been used as access points to preservice teachers working in classrooms.

In the wake of the COVID-19 pandemic, many teacher education programs implemented virtual field experiences (Theelen et al., 2020; Zolfaghari et al., 2020) and considered innovative uses of synchronous and asynchronous video meetings (Henriksen et al., 2020; Lowenthal et al., 2020). Video tools were undoubtedly invaluable to learning during the pandemic, and our program also benefited from the use of video during the strenuous time of remote and hybrid learning. In many programs before, during, and after the pandemic, video tools have been used for supervision, observation, and evaluation of preservice teachers (Chizhik & Chizhik, 2018; Smith et al., 2020). Remote, virtual supervision and observation allow for more feedback from universitybased evaluators without the time and space constraints of in-person scheduling. Video footage of preservice teachers in their classroom-based teaching

experiences also has the benefit of allowing preservice teachers to reflect on their own practice. Of particular relevance to this study is the use of video tools by preservice teachers, who record themselves teaching in their placement context to share moments for critical reflection with their cohort. Many teacher education programs are incorporating video recording and sharing as a way to cultivate critical reflection (Gelfuso, 2016; Kajder & Parkes, 2012; McFadden et al., 2013; Rickard et al., 2009; Rosaen et al., 2010; Scott et al., 2013; Welsch & Devlin, 2006), ambitious pedagogy (Sun & van Es, 2015), pedagogical content knowledge (Gelfuso, 2017), noticing (Estapa & Amador, 2016; Kleinknecht & Gröschner, 2016; Sherin & van Es, 2005), "with-itness" (Snoeyink, 2010), and connections between theory and practice (Tilson et al., 2017). These studies have used video self-analysis as an intervention to improve preservice teacher practice and performance, and overall have established the value of video self-analysis above and beyond the capacities of preservice teachers to reflect on their practice without the aid of video footage. Recording and sharing video footage has also been used as a means to provide preservice teachers with meaningful feedback and evaluation from their mentor teachers and university faculty (Chizhik & Chizhik, 2018; Ewart Dann & Allen, 2015). These studies are generally focused on how to use video analysis to cultivate reflective practice and how preservice teacher performance improves with the use of video self-analysis. Almost universally, the studies have found that preservice teachers reflect on their practice in richer ways when they are reviewing video footage of themselves compared to retrospectively recalling what happened in the classroom.

While this body of research is strong, it is predominately *evaluative* and lacks a critical component: the voices of preservice teachers, though Chizhik and Chizhik (2018) and Smith and colleagues (2020) provide notable exceptions. Both studies used Likert-type scales to solicit the perspectives of preservice teachers on the use of video tools in their programs through questionnaires. Both studies found that preservice teachers enjoyed video analysis when paired with in-person observations, feedback, and evaluation, with clear preferences for the convenience and specificity of video-based feedback. The present study is different in that it collects the perspectives of high-performing preservice teachers through more descriptive, qualitative, semistructured interview data. Believing that education, including teacher education, should be studentcentered and therefore responsive to the perspectives of students (Cuban, 1993), we invited our preservice teachers to share affordances of video analysis that were impactful to them. The effectiveness of video analysis in teacher education has already been thoroughly established, and this study contributes to the literature by creating space for the perspectives of preservice teachers.

Context of the Study

This study took place at a large, Southeastern university where preservice teachers (PSTs) pursue initial certification through a bachelor's degree or master's degree, with a one-semester practicum in the fall and a one-semester student teaching experience in the spring. PSTs take methods courses during the spring, summer, and fall semesters before their student teaching. In the spring, during student teaching, they are enrolled in a weekly universitybased seminar and supported by their university supervisor. During fall practicum and spring student teaching, PSTs are directly supervised by a mentor teacher at their placement school and a university supervisor who conducts monthly observations and facilitates a professional learning community of 3-5 PSTs. Video analysis is incorporated throughout the methods courses, supervisor-led PLC meetings, and peer-led seminar groups ("video teams") in a variety of ways. The participants in this study completed their practicum and student teaching during the height of the COVID-19 pandemic when different schools and districts chose to implement safety procedures in a variety of ways. For the most part, the schools at which our PSTs were placed were open with fully in-person, hybrid, and hi-flex models of operation, such that preservice teachers experienced schools differently than the norm of face-to-face interaction.

The two authors of this paper were graduate students who worked as course instructors and university supervisors with the participants in the study during

their final year in the program (see Table 1). Although our identities as white females reflect the teacher population across the country, we do not account for the experiences and perspectives of BIPOC teachers, and therefore our study is limited in that way. Similarly, our participants are all white, with one male and three female participants. These participants cannot represent minority voices in our program or in teacher education at large, but they do reflect the majority-white, female teaching population in in the United States (National Center for Education Statistics, 2018).

United States (National Center for Education Statistics, 2018). While we have worked to sustain reflexive stances throughout this work, we understand that our study inevitably has limitations, that our identities impact the interviews with our participants, whom we know well, and that our assertions are partial and incomplete. Our prior relationships with participants as their course instructors and university supervisors may have led them to reflect more positively on their experiences with video tools used in the program. To counteract that bias, we started each interview with a

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brief statement that we would like to hear their honest opinions, both good and bad, and that sharing negative opinions would not impact their position in the program. In our interviews, participants did share negative experiences they had with video selfreflection, which we address in our findings. Furthermore, as Wong (1998) suggests, we believe that the rapport we built with the participants during our prior work with them opened up space for deeper, more honest conversations about their experiences with the program's requirements for video analysis.

Reflective Practice as Theoretical Framework

This study uses reflective practice as a theoretical framework on two levels: first, in their methods coursework, where critical reflection on practice was the programmatic goal; second, in our interviews, where we asked them to critically reflection on their use of video analysis in the previous year. Here we will briefly overview the tenets of reflective practice that underpin the program and the study itself.

With the idea of reflective practices in education dating back to John Dewey (1933), many teacher educators have since considered the relative merit of this practice for preservice teachers. Due to the nature of reflecting on recorded video, our program's framework for how video self-analysis is used as a reflective practice draws from Schön's (1983, 1987) "reflection-on-action," Griffin's (2003) reflection on "critical incidents," and Larrivee's (2008) levels of reflective practice. Schön distinguished between reflection-in-action and reflection-on-action. During student teaching, preservice teachers often struggle to reflect in the midst of their practice, as they are in a sink-or-swim mindset (Lortie, 1975). Recording themselves teaching and watching the video footage back gives them the chance to reflect on the actions they took, an affordance that is difficult to recreate without video footage, as recalling the details of the class period can be extremely difficult, if not impossible. Schön's reflection-on-action is а retroactive approach to consider alternative options to improve future practice. As a practical tool to cultivate reflection-on-action, Griffin recommended using critical incidents to guide PSTs to think about their practice, with explicit instruction and coaching from teacher educators. In this writing task, PSTs choose a critical incident from their practice to write about, describing what happened and other actions that could have been taken. Reflective writing, according to Larrivee, can be broken down into four levels: 1) pre-reflection, recalling situations without considering alternative actions; 2) surface reflection, considering possible methods without considering the value of the end goal; 3) pedagogical reflection, evaluating strategies to determine their quality; 4) critical reflection, evaluating the ethical implications of classroom practice on students. These four levels are not necessarily linear, but the goal for our PSTs is to practice pedagogical and critical reflection in conjunction with video analysis.

In methods courses during fall practicum, course instructors required the PSTs to film their teaching around specific pedagogical tasks, for example, facilitating a class discussion, giving directions for an assignment, or leading a mini-lesson. PSTs were required to film themselves teaching and select five to ten minutes of a critical incident on which they would like to receive feedback from peers and course instructors. Simultaneously reading about best practices, PSTs built on their pedagogical content knowledge to ask specific questions about their practice. Based on peer and course instructor feedback, PSTs reflected in writing on alternative actions they could take in similar situations that might improve their practice. This process relates to Griffin's (2003) model of reflecting on

> 'critical incidents' that guided preservice teachers to (a) use the language of their profession; (b) connect theory to practice as they explain their practice; (c) connect their practice to the standards of their profession; and (d) describe how their reflection/analysis would affect their actions in the classroom and school communities. (p. 208)

Like Griffin, course instructors worked to guide students to "focus on the *meaning* of the incidents rather than on the *experience* of them" (p. 210, emphasis in original). The fall video analysis tasks were structured and scaffolded to guide PSTs into pedagogical and critical reflection (Larrivee, 2008) so that they would hopefully engage in reflection-onaction (Schön, 1983, 1987) more independently in the spring semester.

Throughout the spring semester student teaching, preservice teachers met monthly in professional learning communities (PLCs) with their university supervisor and three to four other preservice teachers, where they engaged in collaborative problem-solving, often with the assistance of video footage they recorded as they taught. Video usage across PLCs varied widely, but typically included selfselected video footage of critical incidents that PSTs with wanted to share peers to receive recommendations to improve practice. Similarly, the seminar class included video team meetings about every week, which were unstructured times for preservice teachers to gather in small groups and share self-selected video footage for problem solving, reflection, goal setting, and next instructional planning. These spring-semester video analysis tasks were more open-ended than the fall methods course requirements but built on the skill of selecting a critical incident, asking pedagogical questions to

solicit feedback, and reflecting on peer and supervisor feedback to improve future practice.

Aside from the preservice teachers' reflective practice through video self-analysis that occurred before our study began, the interviews layered another opportunity for the preservice teachers to reflect on how this pedagogical practice influenced their instruction and to consider its merit in future teaching contexts, much like the third level of Larrivee's (2008) reflection framework, pedagogical reflection. Finally, as graduate students interested in further supporting preservice teachers in reflective practices, we were also pedagogically reflecting on the video-self analysis method. The following section will further detail our data collection and analysis that afforded such reflection.

Methods

Participant Selection

As graduate research assistants on a research team devoted to better understanding reflective practice through video analysis in our university-based English Education certification program, we set out to understand the perspectives of exemplary preservice teachers who had participated in our program the previous year. The program coordinator provided the names of six students who had exceeded program expectations for video analysis. These participants were selected for their consistent demonstration of pedagogical and critical reflection, beyond pre-reflective and surface-level reflection (Larrivee, 2008). Of the six contacted participants, four former PSTs agreed to participate (see Table 1; all names are pseudonyms). All participants identified as white; one participant identified as male and the other three identified as female. Our one male participant, Michael, was pursuing a master's degree, whereas Abigail, Alexis, and Samantha were pursuing bachelor's degrees. Video use requirements were the same for all participants, regardless of the degree they were pursuing.

The participants were placed in high school English language arts classrooms in two districts. Two participants, Michael and Alexis, were at a high school that served a population of majority white and Hispanic students in a suburban area. The other two participants, Abigail and Samantha, were placed at a high school in another suburban community that served a majority of Black and Hispanic students. All participants had completed program requirements and were no longer under our supervision at the time of the study, which removed the pressure of the evaluative nature of our former relationship. However, we acknowledge that our role as their former supervisors and course instructors could have an impact on the content of the interview. At the beginning of each interview, we reminded the participants that the interview had no impact on their status in the program, and we asked for honest opinions so that we could improve the program for future cohorts.

Data Collection

We conducted semi-structured interviews that lasted approximately one hour each (Brinkmann, 2015). Our questions centered on the perceived benefits of video analysis for critical reflection as implemented during the fall methods courses, spring PLCs, and spring video teams meetings. Examples of questions posed during the interviews included, *Describe a time when* a video task helped you reflect on your practice and What did you learn about yourself as a teacher through these video analysis activities? (see Appendix for initial interview protocol.) We also used elicitation strategies such as screen-sharing the videos they had submitted to elicit greater detail about the assignments. As the interviews were semistructured, we allowed the participants to lead the direction of the discussion when appropriate, and we "Video analysis tasks were

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revised our guiding questions with each interview to gather comparable data from consecutive participants. Interviews were conducted virtually via Zoom, recorded, and transcribed by the researchers. All transcripts were stored in a shared, passwordprotected drive so that both researchers had access for comparative coding.

Understanding the limitations of our relationships with our interview participants, we triangulated the interview data by collecting reflections our

participants had written earlier in the program for different course assignments. These reflections were written for different course instructors from ourselves, and so provided us the chance to see how our participants talked about their video selfreflection in a different setting for a different audience. We collected a total of six written reflections, with at least one for each participant.

Data Analysis

After each interview, we wrote reflective memos to capture our initial thoughts and notable comments from the

interview (Birks et al., 2008). These memos were instrumental to creating codes for our inductive rounds of coding. During and after data collection, we practiced analytic induction (Erickson, 1985) through multiple rounds of reading and coding transcripts, and generating assertions, which we then tested against the data set.

For the first round of coding, each interviewer read through the interview transcripts individually and coded participant responses inductively, adding notes about emerging themes to a shared memo document. After meeting and reviewing our initial codes and memos, we collapsed all our codes down to three pattern codes (Miles et al., 2020): *authentic viewing, ownership,* and *multiple uses*. For the second round of coding, we each re-coded two interviews, then switched transcripts and checked each other's coding to ensure inter-coder reliability.

After the second cycle of coding, we agreed that our codes were too broad, so we expanded them to five

codes that better captured our participants' experiences: reciprocity, authentic viewing, decision-making, context, and multiple uses. We went through the transcripts for a third round of coding with these codes and created an analytic table with salient quotes from participants for each code. From there we wrote our assertions. We combined the codes "reciprocity" and "context" to assert that video projects allowed our participants to reflect on a variety of different classrooms and contexts. We combined the codes "authentic viewing" and

"multiple uses" to assert that being able to leverage multiple, converging voices allows preservice teachers to reflect differently. The fifth code, "decision-making," supported assertion three, that the participants learned to be intentional about video curation. To triangulate these assertions, we then read and coded the participants' written reflections with our three assertions, looking for instances of confirmation and disconfirmation. We added salient quotes from the written reflections that supported our assertions to the analytic table. We did not find any statements that disconfirmed our assertions.

Findings

Our in-depth interviews revealed that our preservice teachers felt video analysis tasks were most impactful when they were shared with those in other contexts, not just uploaded for a grade or for personal reflection; when they could receive feedback from multiple, converging voices, rather than just peers or course instructors; and when they learned how to curate video footage that would be meaningful for viewing and receiving feedback. The following sections detail the major assertions brought forth by our analysis.

Assertion 1: Video Projects Allowed Participants to Reflect on a Variety of Different Classrooms and Contexts.

Although this cohort met regularly for their university courses, the participants appreciated the additional opportunity to reflect on one another's experiences afforded by seeing each other's teaching and classroom contexts. Furthermore, this cohort experienced practicum and student teaching in the midst of the COVID-19 pandemic (the 2020-21 school year), during which time many felt isolated from others. Watching videos of their peers teaching created a community of reflection that otherwise may not have developed. Though under normal circumstances they might get to observe peers placed in the same building (if any other preservice teachers were placed in the same building), preservice teachers rarely got to see what their peers were doing. Notably, Samantha explained, "I was starved for that. I wanted to watch my peers teach all the time." She explained that she felt encouraged when she was able to reflect on her own practice alongside videos of others at her "skill level," because when she felt like she was "doing something wrong," she realized many preservice teachers face the same problems during

their student teaching. Reflecting on video footage shared by peers in both practicum and student teaching semesters often gave the participants a boost of confidence and sense of community. On the other hand, Alexis shared,

> I mean I felt like the video groups were like not a bad idea, I just wish we weren't stuck with the same people for the entire semester. I would have liked to get feedback from more than just those three people.

Being placed in a video teams group with others who were in the same placement as her and one peer who did not fully commit to the goals of the group, she wished she had been placed with preservice teachers in other counties in order to see what other teaching contexts were like. Though the design of the video teams was meant to cultivate community, her assigned group limited her ability to reflect across contexts. This specific experience, however, points to the benefits of seeing and learning from peers in other contexts.

Ultimately, the participants repeatedly emphasized the joys and benefits of reflecting alongside their peers in other contexts and building community across the cohort. Specifically, in the midst of the pandemic, districts created vastly different policies that impacted preservice teachers' experiences. While Abigail was instructed to stay at her desk, monitor virtual students through the desktop computer, and avoid contact with face-to-face students, another preservice teacher taught in a fully face-to-face context with almost no restrictions. Abigail was grateful to see what teaching in a more "normal" setting looked like, so she could better prepare for post-pandemic teaching:

It was really interesting to see her moving around the classroom in front of the room, since I didn't really get to do that all that much because I kind of had to stay near the computer most of the time, to be there for the online students.

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Table 1

	Author 1 as supervisor	Author 1 as instructor of record	Author 2 as supervisor	Author 2 as instructor of record
Michael (White, Male) MAT	\checkmark	\checkmark		\checkmark
Abigail (White, Female) BSED		\checkmark	\checkmark	\checkmark
Alexis (White, Female) BSED	\checkmark	\checkmark		
Samantha (White, Female) BSED			\checkmark	

Participants, demographics, degree acquired, and relationship to researcher

The pandemic also impacted Samantha's sense of community, as many university courses transitioned to virtual or hybrid settings with fewer opportunities for peer-to-peer interactions. She was grateful for the "snippets" she got to see of other preservice teachers to help her gauge "what's possible and acceptable and out there." Essentially, the additional opportunity to reflect-on-actions (Schön, 1983, 1987) in their own video footage as well as their peers was beneficial for expanding our participants' understanding of the variety of teaching styles and settings. This is particularly important in our context because cohort members are placed in varying geographical contexts (e.g., rural, suburban, urban), school structures (e.g., public and independent), grade levels (e.g., middle and high), and tracks (e.g., co-taught, on-level, honors). Seeing into these different contexts can also deepen their understanding of the nuances and expectations of teaching and instruction beyond their personal experience in their student teaching placement, which can help them make more informed decisions as they begin to imagine what context they hope to teach in during their career.

Assertion 2: Being Able to Leverage Multiple, Converging Voices Allows Preservice Teachers to Reflect Differently.

Text 1 (Video): Dangers of Social Emotional Learning

In exploring the ways in which the participants looked at video analysis as a method for receiving feedback on their teaching, we identified the benefit of leveraging multiple, converging voices on one instance of teaching. Typically, preservice teachers rely on feedback about their teaching from their mentor teachers at their placement context. Video analysis allows for multiple layers of feedback, once that footage is brought back to the university context. So, instead of searching for the one quick fix, or "right" way to teach, preservice teachers are pushed to reflect within a convergence of perspectives (e.g., self, mentor teachers, peers, university supervisors, and professors). As Samantha discussed, the participants appreciated when their "peers commented on specific timestamps" because it gave

"feedback in real time," but they also looked forward to their university supervisor and their professors viewing the video to aid in their reflective process. We believe the added perspectives supported the participants to move beyond pre-reflection and surface levels of reflection and into pedagogical and critical levels of reflection (Larrivee, 2008).

For instance, Abigail appreciated when her university supervisor would email her comments and feedback on her video submissions and help her set up goals for her teaching. The university supervisor, mentor teacher, and student teacher met together to set goals based on observations of teaching both in person and through video footage. Abigail explained that her supervisor's feedback pushed her to consider standards the program uses to evaluate preservice teachers. Mentor teacher's evaluations may draw on different frameworks than what is used for preservice teachers, which then can influence how feedback is given to preservice teachers. Some mentor teachers may have different perspectives on various instructional moves and classroom management styles than the theories taught in university methods courses, and these differing perspectives can create confusion for preservice teachers making sense of what they learn in their teacher preparation program compared with what they see in their placement contexts. The convergent voices of mentor teachers and university supervisors giving feedback on the footage allowed the participants to reflect through multiple vantage points in order to make decisions on how to improve their practice. We feel that Abigail's experiences resonate with what we have witnessed while working with many preservice teachers: The mentor teacher's feedback was grounded in classroom practice, and the university supervisor's feedback was tied to university-based teacher evaluation, which bridged a perceived gap between theory and practice.

On the other hand, when video footage was posted to a shared platform but not viewed by peers, supervisors or professors, Michael expressed that it felt like "a stick in the mud," a wasted effort. Though the university valued the structured opportunity for preservice teachers to reflect individually on their own practice, Michael felt the tasks were "inauthentic" when he "wasn't talking to anyone else." He explained, "If I knew people might view it or someone might reply to it, then I would feel like it meant something." Teaching the lesson the first time and receiving feedback from only the mentor teacher meant that Michael lacked the layers of feedback he usually got from his peers, professors, and supervisor. For Michael, one layer of self-reflection was not impactful enough to make video analysis worthwhile.

Another time, Alexis shared a video with her peers and posed a question that they struggled to find a solution for. Her mini-lesson using a children's book did not translate to the class performing the same skill with an on-level text. She summarized her peers' feedback as, "Yeah dude, I have no idea what happened." However, Alexis described the benefit of having the mentorship of her professor and program coordinator when her peers were stumped while analyzing her video footage because she was able to see how the jump in text complexity required more scaffolding for her students to be successful. Having little experience preparing reading lessons, Alexis and her peers were not able to weed through the plethora of factors that might impede her students' understanding of her lesson. While her peers understood that there was a gap in student understanding, they were not able to pinpoint the disconnect. Alexis needed the pedagogical expertise of her course instructor to help her see that the differences in text complexity between the example she gave and the independent work she assigned were too vast. Having video footage of the lesson paired with the feedback of multiple, converging

voices gave Alexis an insight into the lesson that she may not have had otherwise.

Related to the coaching on "critical incidents" in Griffin's (2003) work, all of these cases show how feedback from multiple, convergent voices on the same teaching video played a critical role in making the video analysis tasks meaningful to participants so that it could impact future practice. The convergence of voices on one moment of teaching reinforces the complexity of the practice and establishes the principle of finding multiple alternative approaches to classroom dilemmas.

Assertion 3: The Participants Learned to be Intentional About Curating Video Footage.

As the preservice teachers moved through the scaffolded video knowledge tasks. their of themselves as teachers and their audience shaped their desire to share impactful video of teaching moments, resulting in curated video footage through intentional planning and early recording. In their experiences of filming their

teaching and reflecting during methods courses, the preservice teachers shared video clips of themselves attempting "ambitious pedagogy" (Sun & van Es, 2015), asking for specific feedback from their professors and peers. For Samantha, this experience, though painful to watch because of the inherent vulnerability of sharing with others, was beneficial because she could connect with her peers over shared difficulties and experiences. In her written reflection submitted a few days after the discussion, Samantha wrote how she initially felt that the lack of participation from her class during a discussion was

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because of her "abysmal failure as a teacher" but later described how her "biggest breakthrough came from [her] perspective and perception of [her] instruction to the students" when she realized discussion was a conversation and not reciting prepared responses back to students. Samantha first described her experience of sharing footage of herself as intimidating, but later her language around videoanalysis grew to embracing vulnerability that allowed her to receive multiple perspectives and desiring feedback on more difficult moments. She explained, "It was difficult to choose what video to share,

> because I was bouncing on this need for validation or praise for doing something well, but also wanting to share a growing moment." Over the course of time, she learned that video footage was more useful for feedback when she was vulnerable and shared moments of struggle with her peers, supervisors, and course instructors.

Another aspect of curating video footage was that how the footage was shot determined what the participants were reflecting on. For instance, Michael described

himself wanting to use different technology to film so he could see his students more:

> I wished that I would have worn a GoPro instead. I know that sounds funny, but I didn't want to see me as a student per se, I wanted to see what I was doing to the students and their genuine reactions from what I was doing, but without them knowing, like I needed a tiny GoPro [laughter]. I mean I want to see myself every once in a while, just to see my posture or do I look nervous, but after I've learned that or once I got comfortable with

that later in the year, I do wish I'd seen my students more.

Many preservice teachers focused the camera on themselves at the front of the classroom, because they conceptualized teaching as their actions, rather than as the interactions between themselves and their students. On the other hand, Michael was considering how capturing video footage of students better served his reflective practice, to critically reflect on how students were responding to the lesson. He was beginning to shift from surface-level reflection to pedagogical reflection, from his actions to the impact of his actions on students (Larrivee, 2008).

Additionally, the program's scaffolding from fall to spring supported the students' ability to be more creative and risky in their lesson planning and filming over the course of the year-long student teaching experience. In the fall, preservice teachers had specific guidelines for planning and recording, but the video teams in the spring were more open-ended in their requirements. Michael felt that he benefited from the creative license to plan and film what he wanted so that he could share strengths as well as probe weaknesses. Similarly, Alexis wanted to film engaging lessons and not "pointless" moments when students "write silently for thirty minutes." As they progressed through the year and had more freedom in their planning, participants recalled being more intentional about how they wrote their lesson plans so that they could curate video footage that would be meaningful for their peers to watch and provide feedback on. We believe that this intentional planning is a result of sustained reflection-on-action (Schön, 1983; 1987), or deeply reflecting back on the content of the footage in both pedagogical and critical (Larrivee, 2008) ways.

This evolution from uneventful teaching footage or fear of audience to re-storying failure pushed these participants to be intentional about what to film and to consider how the footage could be a learning experience in a reciprocal manner. For instance, Samantha explained wanting to showcase her teaching in a way that represented what the cohort was learning at the university: "I want to make sure that...I'm teaching... a skill or a method we wanted to try on, or something that I know that my peers or professors would have something to say about." Her inspiration to film engaging footage went a step further and influenced how she planned even when she wasn't filming. She spoke on how video analysis helped her be "discerning with [her] teaching." Similarly, when Abigail had her mentor teacher film her teaching, they agreed that the footage should either get her the most feedback or be the "best thing to show other people in the cohort." Instead of bringing back footage of perfectly executed lessons, the participants wanted to show footage of moments where they experimented with what they were learning in their methods courses or where they still have questions and curiosities of how to do things better.

Discussion

Our initial research question was, In what ways did video analysis provide impactful learning experiences for these preservice teachers? Overall, the participants found video viewing to be impactful when it allowed for connection over shared experiences and exposure to different experiences. While much of video use in teacher education is centered on footage of experienced teachers to learn from their advanced skills (Gaudin & Chaliès, 2015; Hougan et al., 2018; Lok et al., 2018; Superfine et al., 2015), our preservice teachers were grateful for the opportunity to see others at their own skill level, to peek into similar and different classrooms and contexts, and to learn about the varieties of "normal" out there. With only a year of student teaching experience, many preservice teachers are limited to what they witnessed in their mentor teacher's classroom, rather than pooling

ideas from a variety of contexts. Watching their peers teach through shared video footage was an impactful experience that is nearly impossible to replicate without video recording. And while many programs are starting to incorporate reflection, feedback, and evaluation through video footage (Gelfuso, 2016; McFadden et al., 2013; Sherin & van Es, 2005; Snoeyink, 2010), we do not see much attention on the benefits of watching peers' video footage and seeing into different local teaching contexts or discussion on how this practice can be improved – topics worthy of future research.

The participants also expressed that the video

analysis experiences were most impactful when they were interactive, incorporating feedback from course instructors, peers, and university supervisors. In contrast, video analysis felt inauthentic when videos were uploaded or shared with no feedback or interactions from others, even if personal reflection was required. Smith and colleagues (2020) found that their preservice teachers valued self-evaluation through video,

and our findings support this finding while also adding the importance of the video receiving timely and authentic feedback. Chizhik and Chizhik (2018) also wrote that their preservice teachers "who received video-annotated feedback improved their mindset toward their potential growth as teachers," whereas those who did not receive video-annotated feedback "slightly decreased their mindset" (p. 539). The participants in our study benefited from multiple, convergent voices providing feedback on the same teaching moment. Though we know that PSTs value the feedback of their mentor teacher most of all, who is with them day-in and day-out to see the complexity of their practice (Chizhik & Chizhik,

"Video footage provides opportunities to capture the complexity of the classroom to receive more meaningful feedback from their peers and evaluators at the university, who do not always have access to in-person observations."

2018), we also see how video footage provides opportunities to capture the complexity of the classroom to receive more meaningful feedback from their peers and evaluators at the university, who do not always have access to in-person observations. Rather than trying to remember what happened after the lesson or even at the end of the day itself, video footage affords watching and rewatching and seeing new things as the purpose of reflection evolves. Watching themselves teach through video, the concerns of preservice teachers evolve from, for example, *How can I get a handful of disengaged students to participate*? to *How can I change the structure of the discussion to be more inviting and*

> engaging for all students? Thus, teacher educators can use video self-analysis to strengthen preservice teachers' ability to pedagogically and critically reflect on actions depicted in the video.

> Finally, as the participants described shifting from wanting to share their best moments in the classroom to being willing to share vulnerable moments, the opportunities to reflect trickled

down into the decisions they made in the classroom. Curating video footage became less about showing off or receiving validation, and instead centered on reflecting on their decisions and actions as teachers, and in a few instances how those impacted students. Along the same lines, Sun and van Es (2015) designed their video analysis tasks to cultivate "ambitious pedagogy," helping preservice teachers shift their focus from the "ums" and awkwardness of standing in front of students for the first time, to thinking critically about their pedagogical moves, like giving clear directions, making connections to prior learning, and creating mini-lessons based on assessment. As Sun and van Es (2015) pointed out, watching and rewatching video footage allows preservice teachers to notice things they wouldn't have otherwise as they reflect on their choices and their interactions with students. Snoeyink (2010) designed video tasks that required PSTs to record multiple angles of the classroom, not just themselves at the front of the room. While our program did not have those specific requirements, our high-achieving PSTs began to think about how to curate video footage that captured the students rather than just themselves standing at the front of the room. Like Griffin's (2003) critical incidents, our preservice teachers began to focus on what mattered most in their teaching. Thinking about teaching as a series of pedagogical choices instead of teacher-centered moments was made possible by having video analysis tasks tied to an authentic audience and feedback.

One notable caveat to the benefits of this reflection practice is the technical difficulties of working with video footage: The participants did express some concerns regarding the unwieldy and timeconsuming process of uploading video footage from their personal devices to the web-based app used in the program. While this concern is warranted, and should be a consideration of other teacher preparation programs looking to incorporate videoself analysis practices, we have already seen this concern decrease with both the improvement of the platform our program uses since the conclusion of data collection in this study and our programs' added experience of trouble shooting these concerns. Nonetheless, the technology and platforms used to film and reflect on video should support preservice teachers' reflective practices, not detract from it.

Conclusion

This study showed that the high-performing preservice teachers who participated in our study found video analysis to provide impactful learning

experiences valuable for their reflective thinking. First, the participants benefited from video sharing that allowed them access to a variety of different classrooms and contexts. We also found that being able to leverage multiple, converging voices allowed the participants to reflect differently. Finally, as the participants moved through the scaffolded video tasks, their knowledge of themselves as teachers and their audience shaped their desire to plan intentionally, share impactful video of teaching moments, and occasionally take risks. This initial round of feedback from participants helped us investigate the impact of video use in our program, but can also provide guidance for other teacher education programs working to incorporate video analysis. We see that the video footage paired with reflective writing has the ability to become a portfolio of preservice teachers' reflective practice and growth across a program.

Teacher education is of course designed to measure and evaluate student performance, but incorporating the perspectives of our preservice teachers can allow us to design programs that are responsive to student voices. Self-recorded video footage has been used frequently for evaluation of preservice teachers (Chizhik & Chizhik, 2018; Gaudin & Chaliès, 2015; Gelfuso, 2017) but less so for opportunities to watch other novices and see other classroom contexts. Our findings have added to the literature by showing that preservice teachers value the chance to look virtually into other classrooms and see their peers teaching. Potential future directions for research include exploring different ways teacher education programs can harness peer-based video sharing and feedback. As this study was limited by its small number of participants, future research could also include larger surveys or interviews with preservice teachers about their experiences with video analysis, including the voices of minority students and lower-performing students.

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Appendix Initial Interview Protocol

- 1. Tell me the story of the first time you used [the video analysis app].
- 2. Tell me a few ways you used [the video analysis app] this year. (open)
- 3. If you were designing the program for next year, how would you assign [the video analysis] tasks?
- 4. Describe a time when [the video analysis app] helped you reflect on your practice. (open)
- 5. What is something you discovered about your teaching because of what you did in [the video analysis app] that you wouldn't have otherwise been able to learn? (open)
- 6. Tell me about a time [the video analysis app] got in the way of your teaching and learning. (open)
- 7. Can you see yourself using [the video analysis app] as a practicing classroom teacher? (closed)

As time allows, screen share [the video analysis app] and talk through goals the participant set. Elicit stories about their experiences.