Teacher Moments: an online platform for preservice teachers to practice parent-teacher
conversations

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Abstract

Simulations allow preservice teachers to connect education theory and practice in low-risk environments. This study presents findings from our investigation of the suitability of a simulation called “Teacher Moments” for two parent-teacher conference scenarios. Students in a preservice education class completed two Teacher Moments simulations as assignments during the semester. Using a design-based approach, we document how we learn from multiple implementations and discuss the outcome of the revised design. Our findings suggest that students perceive simulations within Teacher Moments as authentic experiences that provoke cognitive dissonance. Additionally, the simulation allows education students to practice key skills in teaching such as remaining calm in difficult situations and articulating their pedagogical and classroom management approaches to parents.

Keywords: Simulation, teacher education, practice-based education, parent-teacher conversations

Teacher Moments: an online platform for preservice teachers to practice parent-teacher conversations

Simulations provide clear connections between the theory presented in teacher education courses and the reality of the classroom, and they can help teacher candidates develop teaching skills and reflect on their choices and beliefs (Egbert et al, 2000; Gibson, 2014). In this study, we focus on a particular class of simulations called clinical simulations, originally developed for medical education but adapted to teacher education over the last two decades. In a clinical simulation, a student interacts with an actor who is trained to portray a specific character in a pre-determined scenario (Barrows, 1993; Dotger, 2013). Clinical simulations give education students direct experience with uncomfortable situations in a low-risk environment where they can share advice and experiences with peers and a facilitator. Although clinical simulations are excellent learning opportunities, the coordination involved in starting a clinical simulation program requires an initial investment of time and energy that may be prohibitive to some teacher educators. In this study, we investigate the suitability of an interactive web application called Teacher Moments, which attempts to capture the essential elements of clinical simulations through multimedia interactive case studies. We believe Teacher Moments could lower the barrier for starting to use clinical simulations for teacher educators and bring these types of experiences to a wider audience of education students.

In Teacher Moments, novice teachers encounter vignettes of classroom life through text or video, and at critical moments teacher candidates are prompted to respond by typing into a text box or recording an audio response. Through individual reflection and group debriefs, education students have the opportunity to examine their choices and consider alternative

approaches they might take in a real-world situation. Teacher Moments is an open source, publicly-accessible platform that enables users to experience simulations without having to train actors, purchase special equipment, or commit significant resources in advance.

In this study, we focus on the suitability of Teacher Moments as an online practice space for navigating discussions with parents. This research builds on work done by Benjamin Dotger as described in his book *I Had No Idea: Clinical Simulations for Teacher Development* (Dotger, 2003). In the book, Dotger provides all of the information needed for teacher educators to replicate scenarios that Dotger has tested in his methods courses: information such as expository overviews of scenarios, scripts and character notes for training actors, reflection questions, and discussion prompts and protocols. In this study, we attempt to faithfully adapt these live simulations with our interactive media case studies to evaluate whether novice teachers can experience similar learning opportunities while taking advantage of the flexibility, data collection capability, and low cost of technology-mediated simulation.

We first explore the role of simulations in practice-based teacher education, describe the simulation platform, then explore how Teacher Moments meets similar goals of a clinical experience with a standardized actor. We use a design-based research approach to document how education students perceive these multimedia case studies as authentic experiences that provoke cognitive dissonance, and provide a shared experience for the students to reflect on, discuss, and engage in meaningful practice. Through reviewing and analyzing student data within the simulation, discussion, and survey questions, we have evidence that Teacher Moments is a promising approach to practice-based teacher education.

Background and Context

Practice-based Teacher Education

Our investigation into simulations is motivated by the increasing demands for a shift in the curriculum and pedagogies of teacher education from a predominant focus on theory and knowledge towards a focus on a practice-based curriculum (Darling-Hammond & Sykes, 1999; Loewenberg Ball & Forzani, 2009; McDonald, Kazemi, & Kavanagh, 2013; Zeichner, 2012). Practice-based teacher education centers on activities that enable effective teaching and are supported by theory and research (Forzani, 2014; McDonald et al., 2014). Some of these core practices are widely applicable, including leading class discussions and crafting lessons that are responsive to students' conceptions; other activities are domain-specific, such as developing historical thinking or having students "notice and wonder" as an approach to solving mathematics problems (Ball & Cohen, 1999; Lampert M., Beasley H., Ghouseini H., Kazemi E., Franke M., 2010). Preservice teachers learn these activities through iterative cycles of learning, rehearsing with peers, enacting them with students, and analyzing and reflecting on their performance (Grossman, Hammerness, & McDonald, 2009; McDonald et al., 2013). These calls for preparation through practice are also reflected in the structure of current residency programs embedded within school settings (Berry et al., 2008; Guha, Hyler, & Darling-Hammond, 2017; Lampert et al., 2013).

Field placements have traditionally provided the opportunity for prospective teachers to observe other experienced teachers, practice what they have learned in their campus courses, and engage with other educators in real settings. Various factors surrounding the implementation of

field placements often undermine the quality and learning outcomes for preservice teachers. Such factors include a shortage of host teachers, limited opportunities for repeated practice, and poor integration between field placements and university curriculum (Kaufman & Ireland, 2016; Lehman & Richardson, 2017; Zeichner, 2009). Since there are so many variables inherent in school placements and practicum experiences, preservice teachers from the same cohort may end up with vastly different experiences that may vary in quality and learning outcomes (Dotger, 2013). Education faculty may find it difficult to facilitate appropriate reflection and debriefs related to field placements due to the lack of shared experience among their students (Hannah & Abate, 1993).

Simulations in Learning Environments

In recent years, teacher educators have been exploring simulations as a means of facilitating practice-based pedagogy, augmenting field placements, and enhancing various aspects of teacher education (Dotger, Dotger, & Maher, 2010; Kaufman & Ireland, 2016; Mursion, n.d.). Simulations provide opportunities for practice in a safe space (Egbert, Thomas, & Fischler, 2000; Gibson, 2013), and technology-based simulations are well-established as tools for facilitating teaching, learning, and assessment in other fields such as medicine, aviation, and the military (Barrows, 1993; Fletcher, 2009; Kaufman & Ireland, 2016; Page, 2000). Educational simulations such as *SimSchool*, *Quest2Teach*, and *TeachLive* introduce preservice and inservice teachers to the complexity of the classroom by engaging with students, parents, and colleagues within a virtual environment. *SimSchool* is a learning environment in which teachers assemble classes of students, practice teaching, and collect and analyse data on teaching activities and

student response (Badiee & Kaufman, 2015; Christensen, Knezek, Tyler-Wood, & Gibson, 2011). *Quest2Teach* takes a game-based approach, allowing preservice teachers create avatars and play focused games to develop specific skills or games with a broader focus to gain experience integrating skills within classrooms (Arici, Barab, & Borden, 2016). In *TeachLivE* simulations, teacher candidates interact in real time with on-screen avatars controlled by a remote “inter-actor,” and they work through specific situational challenges much like in a clinical simulation (Hayes, Straub, Dieker, Hughes, & Hynes, 2013; Straub, Dieker, Hynes, & Hughes, 2014). In each of these examples, preservice and inservice teachers have access to student level data and analytics to help in decision making and gauging the effect of those decisions on the students in the virtual world.

In 2007, Professor Benjamin Dotger began adapting clinical simulations for training future teachers and school leaders to be better prepared to handle common problems of practice (Dotger, Masingila, Bearkland, & Dotger, 2015). In his book *I Had No Idea: Clinical Simulations for Teacher Development* (Dotger, 2013), Dotger presents scenarios that address challenging conversations with parents, an opportunity few preservice teachers experience during their preparation (Korthagen & Kessels, 1999).

Dotger and colleagues recruit and train professional actors to play the role of a standardized individual (i.e., parent or student) in the simulations (Dotger, 2013; Dotger et al., 2015). By standardized individual, we mean that multiple actors are trained to embody a specific individual in a consistent manner for all participants of a simulation (Dotger, 2015). Each standardized individual receives an outline of the conversation with specific “verbal triggers” designed to focus conversation on a specific topic during the simulation, and these triggers serve

as points of reference in the debrief (Dotger, 2013). Dotger uses simulations in conjunction with post-simulation debriefs to promote teacher reflection on the problem of practice encountered in the simulation (Dotger, 2013). The emphasis on standardization aligns well with the affordances of technology; through text and video we can create scenarios that are in fact identical from participant to participant, albeit lacking the ability of trained actors to more flexibly respond to specific situations.

The benefits of clinical simulations to teacher education have been documented in various studies (Dotger, 2011; Dotger et al., 2015; Self, 2016). For example, clinical simulations have been shown to help stimulate preservice teachers' self-assessment of their instructional style and provide teacher educators with valuable data about the content knowledge, instructional abilities, and practices of their preservice teachers (Dotger et al., 2015). A benefit of clinical simulations over field placements is that clinical simulations provide teacher educators with the ability to direct the learning outcomes by designing the simulation to focus on specific problems of teaching practice (Dotger, 2013).

The three main factors that impede the dissemination of clinical simulations as a pedagogical tool for teacher education are the required time commitment, associated costs, and educators' reluctance to changing their teaching approach (Grossman et al., 2009; Kaufman & Ireland, 2016). Technology-mediated approaches such as Teacher Moments may be able to address some of these considerations. Replacing trained actors with standardized text and video scenarios reduces the main cost of the enterprise, and scheduling and coordination become substantially easier as well since the technology software is available anywhere at any time. Teacher educators can try out various simulations on Teacher Moments without having to

purchase any special equipment or commit significant resources upfront. The only equipment required is an internet-enabled device with a web browser.

Learning and Experience Goals for Parent-Teacher Simulations

From Dotger's (2013) work, we identify four kinds of goals for participants in the parent simulations. The first two goals are experiential. First and foremost, clinical simulations need to be perceived as as an *authentic experience* by users. To be successful, students have to buy into the scenario and respond to the interaction as if it were a real conversation between a teacher and a parent. One crucial element of an authentic experience is that teachers experience *cognitive dissonance*. Cognitive dissonance occurs when an individual encounters attitudes, beliefs or behaviors that conflict with their own, which produces discomfort leading to an alteration in one or more of the attitudes, beliefs, or behaviors to reduce the discomfort and restore balance (McLeod, 2008). Teachers experience cognitive dissonance in the early stages of their career (Cook, 2009), resulting in disequilibrium. Dotger purposefully designs his simulations to incorporate such psychological challenges in order to provide preservice teachers with opportunities to deconstruct and evaluate approaches to such problems (Dotger, 2013, pp. 10–11).

These experiential goals, authenticity and cognitive dissonance, are prerequisites for students to address the two learning goals of these scenarios: *maintaining calmness in frustrating circumstances* and *articulating teaching policies and philosophies*. A successful implementation of clinical simulations allows preservice teachers to practice engaging in a challenging situation, and to reflect on their response as a way to develop professional skills as a teacher and be more

prepared for uncomfortable situations in the future. In these parent conversations, teacher candidates should be able to remain calm while articulating their beliefs and policies as they relate to pedagogy and classroom practice.

Research Questions

From these four goals, we derive the four research questions for this study. To be a viable alternative to in-person clinical simulations, the Teacher Moments simulation would have to be perceived as authentic by users and meet the learning objectives of a comparable clinical simulation. Therefore, we address the following four questions:

1. How do education students perceive Teacher Moments as an authentic representation of a parent-teacher conference?
2. How effectively does the Teacher Moments scenario engender cognitive dissonance among education students?
3. How do education students perceive Teacher Moments as an opportunity to practice remaining calm in frustrating circumstances?
4. In what ways do education students use Teacher Moments as a practice space for articulating their teaching, assessment, and classroom management philosophies?

Methods

Context and Participants

Undergraduate preservice educators enrolled in an Introduction to Education course engaged with simulations in Teacher Moments three times over the course of the semester.

Though this course is part of a preservice teacher sequence, not all students complete the entire

sequence, and we therefore refer to the participants as “education students” in this article.

Students were informed that all students in the class would use Teacher Moments for a homework assignment; however, students had the option to exclude their responses from the analysis. Twenty-four undergraduate students were registered in the course in the spring of 2017; twenty-two students (17 female, 5 male) gave consent for their information to be included in the study. At the time of the playtest, all students had started visiting middle or high school classrooms. During these visits, education students observed classroom teachers and interacted with students. None of the students had taken part in parent/teacher meetings.

Scenarios and Methods Course Integration

The professor integrated Teacher Moments into the semester on three different occasions: week 2 (4th meeting), week 8 (15th meeting), and week 11 (21st meeting). Similar to Dotger’s implementation of clinical simulations, the first occasion was an introduction to the assignment and expectations for the assignment, and results from that implementation are not included in this analysis.

The second occasion was part of a series of classes on Universal Design for Learning (Meyer, Rose, & Gordon, 2014) and Understanding By Design (Wiggins & McTighe, 2005). After discussing how to design classes to reach all learners, the professor wanted to highlight the challenges of understanding how to meet specific students’ needs. In this simulation, Lori Danson is a concerned parent who asked to meet with the teacher before the beginning of the school year without giving a specific reason for the meeting. During the first part of the simulation, Lori Danson explains that Brian is autistic, and then asks the teacher to “tell me what you know about autism”. Ms. Danson also asks how the teacher will adapt the class to

accommodate Brian, and how the teacher would respond if Brian unexpectedly hugs another student in class. Lori ends the conversation by saying that she is just concerned for her son. The learning objective for this simulation is to examine “how teachers address what they do or do not know about a specific disability” (Dotger, 2013) to a knowledgeable parent. This topic is a springboard for a broader discussion about how teachers accommodate students with disabilities, learn about different services for students, and address behavior issues for all students. We refer to this scenario as the Danson-Autism scenario.

The third occasion used another Dotger scenario involving a parent concerned about the difficulty level of a course. The scenario was integrated into a series of classes on innovative pedagogy and student assessment, such as inquiry-based and project-based learning and portfolio-based assessment. The instructor’s goal for the simulation was to have students practice discussing and communicating their teaching strategies and assessment practices with parents. In this simulation, Jennifer Turner is a disgruntled parent who calls a meeting with the teacher to discuss her daughter Amber’s low grades in the teacher’s class. Her main premise is that her daughter’s budding modeling career makes school irrelevant. During the meeting, Mrs. Turner questions the teacher’s high expectations and constructivist-based teaching and learning approaches and asks whether Amber could just get a passing grade in the class. The verbal triggers in the Jennifer Turner situation include “Not everyone goes to college, so you shouldn’t be teaching them like they all are”, that the teacher is “wrong in his/her approach to teaching”, that “I was a teacher once...” (even though she owned a daycare center) and “Amber has always done well in other classes. Your class seems to be the only one she’s having trouble in” (Dotger,

2013 pp.89). Mrs. Turner is condescending to the teacher, and threatens to meet with the school principal. We refer to this as the Turner-Rigor scenario.

Simulation Process and Protocol

We model our process after the protocol used by Dotger (2013), except that the education students in this study use Teacher Moments to respond to a text-based or video-based simulation experience, rather than interacting with a live actor. With the exception of the group discussion questions and some of our survey questions, all other written materials used in the playtest were derived from the Danson-Autism and Turner-Rigor simulations described in Dotger's book (Dotger, 2013, pp. 84–91). This section provides details about our playtest protocol as illustrated in Figure 1. The steps marked with an asterisk are specifically for the research study.

Figure 1: Teacher Moments process and data collection protocol

Read background context (1): The preservice teachers begin by reading a five-paragraph background context about the simulation.

Pre-simulation teacher reflection questions (2): After reading the background context, the preservice teachers spend a few minutes responding to two pre-simulation reflection questions in an online form, noting expectations about the conference and comments or concerns they may have.

Teacher Moments simulation (3): After answering the pre-simulation reflection questions, the education students begin the simulations. The Danson-Autism simulation consists of a welcome page and 6 text-based interchanges with Ms. Danson (the standardized parent), each requiring an audio response from the teacher. Students read the text interchange, then audio record their responses by clicking on a button labeled “respond” when they are prepared to respond, as seen in Figure 2a. After completing six responses, participants view a summary page with all of the text scenarios and their responses. In the Turner-Rigor simulation, we tested two additional features in order to increase the authenticity of the scenarios and enhance the experience of cognitive dissonance. In this scenario, there are six recorded video comments from Mrs. Turner, as shown in Figures a and b. Following each recorded comment, the video player displays a still image of the parent and the audio recorder immediately begins recording the participant’s response and ends when the participant clicks the button labeled “done”.

Figure 2a. Text-based scenario with “respond” prompt button

Figure 2b. “Done” button appears while recording audio response

Figure 3a. Video scenario

Figure 3b. Still image displayed while recording audio response

In both text and video based scenarios, the education students save their audio responses so they can review them afterward and share them with the class.

Post-simulation reflection questions (4): After each scenario, the education students return to another form to complete six reflection questions about their perceived strengths and weaknesses in responding to the simulation, as well as their feelings about it. They save these responses and bring them along for the class debrief so they don't have to recall everything from memory.

Post-survey about simulation (5): The students complete a short survey about Teacher Moments to share their feedback on the pre-simulation tasks and the simulation experience (see Appendix A). Students are asked whether the pre-simulation materials were adequate preparation, whether they perceived the scenario as a plausible interaction between a parent and teacher, and how difficult it was to provide responses during the simulation.

Group discussion (6): Students engage in a facilitated discussion of each of the Teacher Moments experiences on the date the homework was due. Both classes begin with framing questions, a small group discussion, and conclude with a full group discussion of students' reactions to the scenario. In both playtests, the instructor viewed students' post-simulation reflection responses before the class debriefing session.

Complete post-discussion survey (7): At the end of class, students complete a short survey about the discussion. Survey items probe whether the students felt they learned anything new or gained any new insight from the debrief, any suggestions they have about the discussion format, and any other thoughts or feedback they have about the entire process. The simulation can be viewed at the following website: (BLINDED FOR ANONYMITY)

We followed these protocols, but had some difficulties with student compliance in the Danson-Autism scenario--only 6 students completed the scenario as assigned. The scenario was assigned early in the semester, and 14 students had not yet configured their email from the class platform (Google Classroom) to their university email account, thus they did not receive the invitation and links to the scenario. After addressing that problem, 19 students completed all exercises generating data for the Turner-Rigor scenario. We listened to the students' audio recordings for both of the scenarios, and all of the students' responses suggested that they approached the assignment seriously.

We analyzed students' responses to the anticipatory and post-simulation reflection questions, the notes from the class discussion, and the post-discussion survey. We were particularly interested in the post-simulation reflection questions, which Dotger calls "raw reflections" (2013 p. 59), as those reflections capture the "immediate, visceral reactions the teacher exhibits in response to the problem-of-practice s/he just experienced in the simulation" (p. 59). The way in which students respond to the post-simulation questions will indicate whether students perceived the Teacher Moments experience as authentic. Students also saved and reviewed their audio responses to enable what Dotger calls "data-based reflections" (p. 60).

These data-based reflections could be used in class to recall and address students' reactions to the simulation during the class discussion. We also analyzed notes from the class discussion and the post-discussion surveys to understand how students used the data-based instructions. In the following section, we describe our analysis of student experience of authenticity and cognitive dissonance, and of maintaining a calm demeanor and articulating their teaching beliefs.

Results

Authenticity of the Experience

Students were asked whether they perceived the scenario as “a good approximation of a situation I may experience in a parent-teacher conference”. Most students responded positively; five of the six students in the Danson-Autism and eighteen of the nineteen students in the Turner-Rigor simulation either agreed or strongly agreed that the simulations were authentic approximations of parent-teacher conversations. Although the students had not directly participated in any parent/teacher conversations, they perceived these scenarios as believable situations, which is an important piece of authenticity.

When the students were asked to write down three to five words that described their experience from the Danson-Autism simulation during class, students wrote words such as “anxiety”, “pressured”, “conflicted”, “stressful”, “realistic”, “shocking”, and explained that the simulation “felt natural”. In the survey responses, students described being “uncomfortable”

during the simulation, and this feeling affected their ability to respond. As one student commented,

I kind of expected her to come almost ready for a fight. I think that it was clear from the get-go that Amber's mom was involved and had high expectations, just not in academics. It was a little intimidating and hard to handle, but felt pretty real.

Another student observed that the simulations sparked imaginative thinking about the future of these fictional interactions:

I liked the story. I could imagine how I might act going forward, even though that wasn't part of the simulation. I like that it prompted further thoughts about how I might follow up with Amber or with Jennifer at some later date.

In the initial Danson-Autism scenario, Lori Danson's comments were rendered in text, and several students suggested that multimedia would be more realistic. One student wrote that,

While having the mother's words in text was helpful for me to review what she said and address every point, it eliminated the challenge of carefully listening to and remembering someone else's words, something that can trip up a lot of people with poor memories.....**Having the mother's statements presented in audio form would allow us to practice this challenging aspect.** (Emphasis added)

A different student suggested that the interactions would also be more challenging and realistic if the recording started immediately following the recording.

I think that **if it is possible for Lori's piece to be an audio recording and have the student-teacher's audio recording begin immediately after Lori's recording finishes**

then you will get a more natural response. This format allowed for time for thought before responding, when in reality, a student-teacher would only have a moment to synthesize and respond. (Emphasis added)

As noted, we implemented these suggestions in the Turner-Rigor scenario, and 18 of the 19 students who completed the post-reflection survey agreed or strongly agreed that the interaction of listening and responding to the simulation felt realistic. In the open-ended follow-up question, eight students specifically mentioned that the video format in the Jennifer Turner simulation was more realistic than the text format in the Lori Danson scenario. These students described how the video allowed them to see Mrs. Turner, monitor her body language, and respond in a more realistic fashion. In reflecting on the videos of Jennifer Turner, one student explained that “Her body language and tone definitely let me know she was not happy with me”.

Cognitive Dissonance

In their reflections, students identified key moments as particularly difficult in both scenarios; often these corresponded with the verbal triggers that were purposefully included in the simulation. Sometimes students referenced similar phrases or the exact phrase in their post-simulation survey responses. In Table 1, we show several examples of verbal triggers from the two scenarios and responses that correlate to these pivotal moments.

Table 1: Cognitive dissonance in students' responses to verbal triggers in the Lori Danson and Jennifer Turner scenarios (Emphases added)

Verbal trigger from Dotger (2013) scenario	Education student responses (emphasis added)
<p>“What do you know about autism?” (Lori Danson)</p>	<p>“The hardest question was when she asked what you know about autism, since it's a spectrum disorder it affects people differently. I could assume something about her child.”</p> <p>“I struggled to explain my familiarity with autism, probably because I am not quite so familiar with it at all. I definitely need to learn more in the special education/learning disability department.”</p>
<p><i>Apologetically</i> “I’m sure you think I’m a pain in the neck parent, but I’m just trying to protect my son” (Lori Danson)</p>	<p>“...at the end when she became really nice and reasonable, I felt like I struggled with that more versus when it was an unreasonable request. I felt like I overcommitted more when she was nice and reasonable.”</p>
<p>“I’m no dummy. Are you sure this is how you’re going to communicate with</p>	<p>“...in the middle what I struggled with was that she wasn't super nice to me. The whole I'm not a dummy</p>

<p>me when you also serve so many other kids and families?"..... (Lori Danson)</p>	<p>thing. It was hard to keep a positive spin on it. I didn't want it to go so negative."</p>
<p>"I was a teacher once....." (Jennifer Turner)</p>	<p>"I was caught a bit off guard when Mrs. Turner said that she was herself a teacher, and my response had a "well this is well-known and researched pedagogy" tone which would probably be off-putting. I would have expected a bit more sympathy from her after explaining my position and pedagogy."</p> <p>"I think it'd be interesting to discuss her "I've been a teacher before" card. A lot of people use the fact that they've been a teacher to justify their policies or thoughts on education, but there are so many teachers out there and a lot of them aren't "good". What does "good" mean?"</p>
<p>At the end of the discussion,imply you "will be talking with the principal about the teacher's 'unreasonable expectations' of his/her students" (Jennifer Turner)</p>	<p>"Yes, it [the simulation] reminded me that I tend to have trouble thinking when frustrated with someone. In the last response after Mrs. Turner threatened to go to the principal, I hesitated a while before I came up with a response, which was still not the greatest."</p>

	<p>“Yes. I paused, uncertain of how to respond, when Mrs. Turner said that I was new so I didn't know how things worked, and when she said that she would bring in the principal. I'm not sure how to respond when people tell me I'm unqualified.”</p>
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In the Danson-Autism simulation, students realized they did not know a lot about autism and the resources available to teachers, and wanted to learn more about how to manage classes with disabled students and communicate effectively with parents of children with disabilities. During the discussion, students also shared ideas about how to strike a balance between attending to Brian's needs and not “hovering over him” and between reassuring Lori while not taking on too much extra work for themselves as teachers. The simulation also prompted students to become better informed about disabilities and support systems for students.

For the Turner-Rigor simulation, students were surprised to encounter a “former teacher” with low academic expectations and a willingness to go to the principal. In the individual survey responses and the class discussion, students shared their frustrations in dealing with someone who was stubborn, unreasonable, and a former teacher who did not appear to value education. They recognized the importance of keeping the principal informed about their own teaching practices in addition to articulating their rationale to students and parents. The simulation also reminded students that teaching includes both academic and social skills, as well as developing

relationships with parents. Both simulations allowed students to experience and reflect on moments of cognitive dissonance that could occur in a difficult parent-teacher conference.

Learning Objectives: Meaningful Practice

Calmness in Frustrating Circumstances. One of the main learning objectives of the Turner-Rigor simulation is to serve as “an opportunity for teachers to practice remaining professional, calm, and reasoned when interacting with a generally disrespectful parent/guardian” (Dotger, 2013, p. 85). Twelve of the nineteen education students who completed the scenario mentioned maintaining composure in a challenging situation as an area of professional strength during the Jennifer Turner simulation, describing their responses as “reasonable”, “calm and logical”, “collected”, and “calm and thoughtful”. Engaging in the Lori Danson scenario also gave students the chance to practice remaining calm. In their reflections, four of the six students mentioned being “conversational”, “remaining calm”, “maintaining my composure” being “diplomatic” and “speaking respectfully”.

While some of the education students felt composure was one of their strengths during these simulations, the experience also highlighted remaining calm and not getting frustrated as areas for further growth. Students’ raw reflections revealed their surprise in how the parents responded. In the Danson-Autism scenario, one student explained,

If I was thrown off by a question, I tended to stutter or awkwardly pause instead of responding calmly and confidently. I did, however, gain confidence and clarity as I spoke in each response.

Students also reflected about their responses in the Turner-Rigor scenario, as a different student mentioned:

I think I could be better at responding when caught off guard. After Mrs. Turner mentioned me being a new teacher in a condescending manner I was pretty caught off guard and my response to her was not as well thought out due to my surprise.

These two examples mirrored other students' reactions to the Danson-Autism and Turner-Rigor simulations. The scenario topics created the "raw" response of surprise, and gave the students practice responding to an unexpected event in a low-stakes environment. This allowed students to practice and reflect on their ability to remain professional when dealing with a disrespectful parent.

Articulating Teaching, Assessment, and Classroom Management Philosophies. Both scenarios prompted students to articulate the rationale supporting their choices as teachers. The primary goal for the Danson-Autism scenario is to "synthesize their classroom philosophies for students with disabilities with their instructional and management strategies" (Dotger, p.108). Students' responses to the post-simulation survey indicate that the simulation prompted them to consider how to balance the needs of students with disabilities with the needs of the rest of the class, and was a chance to practice listening carefully and reassuring a concerned parent. Students thought through how they would address student behavior in the classroom in a constructive and thoughtful way. One student explained:

My strengths were always looking for ways for Brian to grow in every situation presented. For example, in the "unwanted hug" situation, I made sure to talk to both

students involved separately to understand the whole situation to appropriately direct Brian afterward.

Students also described how they would engage with parents of students with disabilities through effective communication such as “addressing everything Mrs. Danson had mentioned and avoid giving vague or unhelpful answers”, and by being open to learning from parents including recognizing that “Lori’s advice and insight could be a great help for me in the future in teaching students with autism”.

The Turner-Rigor simulation focused on academic issues, prompting education students to describe their expectations for students with a parent who did not have similar views. Students had to articulate their teaching philosophy while under pressure, and explain how they would evaluate students as individuals. One student explained,

I think I remained calm throughout the simulation and gave a slow, well thought out response. I also think I did a good job justifying my philosophy arguing that all students should be challenged and that the activities I promoted would help in the long run.

Another student described how individual growth was a more important assessment to them than comparing across students.

I think I did a good job of explaining that Amber was capable of more. Multiple times, Jennifer brought up that I was expecting too much, and I think a good response to that is to say that her daughter is capable of meeting them. I also pointed out that I don't expect the same quality of work from all students: it's not an AP class, so if some can't work to

AP standards, that's ok, as long as I see effort and improvement. I thought Jennifer would agree that Amber is capable of that.

The simulation prompted students to unpack their ideas about assessment and communicate their ideas with parents, and gave them an opportunity to share these ideas with their peers and the instructor during the discussion.

Discussion

Clinical simulations allow education students to experience important situations such as parent-teacher conversations in a low-stakes environment. Education students are able to reflect on their part in these conversations individually, generate ideas for discussion, share their own ideas, and gather feedback from peers and the instructor. A simulation platform like Teacher Moments has the potential to lower the barriers for teacher educators to explore and implement clinical simulations as a pedagogical approach for teacher education. Our findings in this initial study indicate that the Teacher Moments scenarios meet the criteria for an effective simulation in that each was perceived as an authentic scenario, caused students to experience cognitive dissonance, and gave students a chance to practice remaining calm while clearly articulating their pedagogical and classroom management approaches in conversations with a parent. Additionally, the simulation gave a common experience that enabled students to exchange ideas with peers and instructors.

In future work, we hope to develop several new features to improve the Teacher Moments experience. We plan to introduce branching pathways to allow participants to solicit information

from parents during scenarios, and to configure repeated practice opportunities for teachers. We plan to create simpler avenues for participants to hear the responses of other participants, perhaps in small online “study groups,” to increase asynchronous opportunities for peer feedback. We hope to develop simple authoring tools to allow any teacher educator to create their own scenarios for practicing other kinds of parent conversations or difficult situations with colleagues or students, and share information about these tools with a wider audience. We also plan to incorporate transfer tasks such as role plays and additional case studies as other ways to gauge the impact of these types of practice spaces on participants. This early-stage design-based research provides informative data from teacher education students that they believed that Teacher Moments has real value in rehearsing for challenging circumstances. Our future research will examine whether education students who engage with Teacher Moments simulations are in fact more prepared and behave in more professional, sophisticated ways than education students who don’t have such opportunities to practice.

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Appendix A Teacher Moments - pre and post survey questions

Pre simulation survey

Given that you have little data on which to build expectations, what are your goals for this parent-initiated conference with Lori Danson?

Do you have any specific observations, notes, concerns or statements you wish to document before this simulation begins?

Keep this window open and complete the next set of questions after you have completed the simulation.

Simulation

Please complete the simulation in Teacher Moments before proceeding to the next page. You will need to make audio recordings, so please find a quiet place. We recommend you open the link in Google Chrome.

LINK SUPPRESSED

Post simulation survey

Reflecting back on your conversation with Lori Danson, list 3 - 5 words/phrases to describe your initial thoughts or feelings

Recognizing that you had little data prior to the conference, were you able to accomplish your goals? If not, what prevented you from doing so?

What were your strengths in this simulation? Briefly describe the portion of the simulation where you exhibited this professional strength.

Did this simulation highlight any professional skills, knowledge base(s), or dispositions on which you need to improve? If so, briefly describe the specific portion of the simulation where you struggled or were unsure of how to proceed

Reflecting on your meeting with Mrs. Danson, do you have any new or different perspectives on your professional responsibilities, policies, or expectations?

Are there specific questions, statements, dilemmas, or situations that arose in your simulation that you want to raise for discussion during the larger group debriefing in class? List below

Please save one of your audio responses on your computer for the class group discussion. This could be a clip related to any of your responses above or any part where you struggled. You can download and save any of your responses on by right clicking on the play button (in the Summary page) and selecting "Save Audio As..."

The background context provided before the simulation contained sufficient information for me to imagine myself in that situation as a new teacher

I think text is an effective way to present the context and background information about the scenarios

Any other thoughts or feedback about the context

Use the scale strongly disagree/ disagree/ neutral/ agree/ strongly agree to respond to the next 5 statements.

The pre-simulation reflection helped me prepare for the simulation

Any other thoughts or feedback about the pre-simulation teacher reflection

The scenarios give a good approximation of situations I may experience in a parent-teacher conference

I think text is an effective way to present the words spoken by someone else during the scenario

I think audio response is an effective way to practice my response to scenarios I may experience in a conference

The user interface of Teacher Moments was easy to use

Any specific things you liked about Teacher Moments?

Any specific things you did not like about Teacher Moments?

Any other thoughts or feedback about Teacher Moments or the overall experience?