# Educational Leadership Students and Mixed Reality Experiences: Building Student Confidence to Communicate with Parents and Teachers

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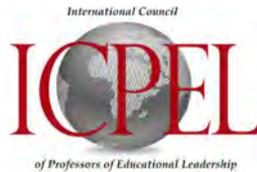
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Preparing future school administrators to engage in effective communication with parents and teachers is a necessary component of master's of educational leadership preparation programs. Mixed reality experiences (i.e., a life-like virtual rehearsal experience) provide students with opportunities to engage in realistic practice in a low risk professional environment where they are given immediate feedback and an opportunity to reflect on the simulation experience. Through this study, researchers examined students' perceived value of the mixed reality experience in developing their conferencing communication skills with parents and teachers. Findings from this study indicated that educational leadership students placed a high value on the mixed reality experience as it related to building their confidence in speaking to parents and teachers. Given the findings from this study, educational leadership programs may want to consider infusing mixed reality experiences into their programs tailored to their specific context to transition from a traditional delivery model to a contemporary model with realistic practice aligned to the needs of schools.

Keywords: mixed reality, parent communication, teacher communication, reflective practice, and educational leadership preparation

Educational leadership preparation is best when tailored to the unique context of a program and the students (Manna, 2015). Classroom experiences, field experiences, and internships should provide a cohesive system of development (Orr & Pounder, 2011). A cohesive system of learning experiences scaffolds students from classroom practice to the field experiences and internships. To avoid ineffective field and internship practice, one educational leadership program provides for virtual rehearsal with feedback in a mixed reality environment to increase students' expertise prior to engaging with parents and teachers in school level live contexts.

Mixed reality holds promise for providing virtual rehearsal prior to educational leadership students practicing in schools and before assuming administrative positions in schools. Exploration of new immersive technologies to impact preparation of school leaders can assist in transitioning traditional preparation to contemporary preparation, aligned with the changes in schools and providing realistic practice coupled with feedback and reflection. Mixed reality combines technology with the strength of improvisational interactors to provide a life-like virtual rehearsal experiences (Dieker, Grillo, & Ramlakhan, 2012; Dieker, Hynes, Hughes, & Smith, 2008; Hughes, 2014). When this unique use of technology is implemented and combined with coaching feedback to enhance students' expertise and confidence there is potential to better prepare school leaders to communicate with parents and teachers.

Context of the Study

The problem studied was the need for educational leadership master's degree students to be prepared for diverse parent and teacher conferences before their school-based administrative internship and before subsequent appointment to an administrative position in one of the local school districts. In the regional area served by the university where this study was completed, the school community is comprised of parents and teachers who are ethnically, economically, educationally, and linguistically diverse. Schools within this community are considered urban emergent in that they share similar characteristics with schools located in larger cities like New York and Los Angeles, cities considered to be urban intensive (Milner, 2012). Therefore, practicing interactions with diverse populations is intended to develop educational leadership students' confidence and expertise in conferencing with parents and teachers during the administrative internship. Variables that researchers believed could be positively influenced with virtual rehearsal in a mixed reality environment included the level of preparedness and confidence that master's degree students have in their internship and soon thereafter as novice administrators as a result of the life-like simulated experiences.

This study examined educational leadership master's degree students' perceptions of value of these virtual rehearsals and the coaching feedback from fall semester 2013 through spring semester 2015. Master's degree students ($N = 141$) in an educational leadership program participated in virtual rehearsal with immediate coaching feedback twice as part of their coursework during their master's degree program. One of the experiences was a parent conference that resides in the course entitled Community School Administration. The second virtual rehearsal experience was a teacher post-observation conference that is included in the second teacher supervision course, aptly named Supervision II.

Specifically, the virtual rehearsal was completed through TeachLivE™, a mixed reality system. TeachLivE™ provides an immersive learning experience through a simulation where the participants are able to practice with avatars and receive immediate coaching and feedback, in a low risk environment. The simulation lab was developed to support preservice and in-service teachers'

practice with classroom situations with avatar students in a low risk professional setting. Later, the simulation system was expanded to include adult avatars for the purpose of realistic practice in communicating with parents and teachers in an administrative capacity in a low professional risk environment (Dieker et al., 2008). To analyze students' perceptions of the value of the virtual rehearsal experiences and the coaching feedback learning experiences both immediately after the simulation experience and months later at the completion of the administrative internship, the researchers designed four research questions:

(a) To what extent, if any, do Educational Leadership M.Ed. students believe the TeachLivE™ parent conference and teacher post observation conference simulation experiences to be helpful in developing their communications skills with parents and teachers?

(b) To what extent, if at all, do Educational Leadership M.Ed. students believe the TeachLivE™ coaching feedback was helpful in developing their communications skills with parents and teachers?

(c) To what extent do student reflections of the TeachLivE™ experience indicate it is beneficial in increasing skill in communicating with parents and teachers immediately following the mixed reality simulation?

(d) To what extent do Educational Leadership M.Ed. students perceive the TeachLivE™ experience to be beneficial in influencing leadership behaviors as they relate to communication with parents and teachers at the end of the second semester administrative internship?

Conceptual Framework

As described by Manna (2015), there is no one best way to prepare school leaders and, therefore, preparation should reflect the local educational needs. A template for preparation of school leaders is not enough for those entering into diverse, urban environments with high accountability for student learning in such states as Florida. Consequently, to add value to the learning experiences of master's degree students in educational leadership, faculty members at one university chose to provide virtual rehearsal in a mixed reality environment that simulates parent conferences and teacher post-observation conferences in local schools.

Mixed Reality Experiences and Coaching Feedback

Although it is considered good practice by many to role play and have peer practices, situated learning requires both content accuracy and complexity of practice (Rees Dawson & Lignugaris-Kraft, 2013). The use of peer modeling and role-playing among peers is not consistently effective because it is dependent on the skill set and comfort of students who role play, students' comfort in not being lenient with peers, and students' comfort in providing realistic diverse practice (Okita, Bailenson, & Schwartz, 2008).

Because of the need to develop consistently effective situated learning, the researchers utilized two theoretical frames, mixed reality and coaching with feedback, to improve students' expertise and to propel the preparation of school leaders into a new realm of possible delivery modes. Moving from theory to practice with scaffolded instruction and the use of virtual rehearsal, creates a safe environment in which the learner can experiment with the content without risk. A safe environment is a place "where error is welcome and fostered – because we learn so much from errors and from the feedback that then accrues from going in the wrong direction or not going or not going sufficiently fluently in the right direction" (Hattie, 2009, p. 23). As such, this safe

environment for learning provides opportunities to make curricular connections and engage in deep reflective practice (Sch n, 1983). When the mixed reality experience has a realistic avatar, who looks and sounds like a human, engagement and responses are generated that are much like in a human-to-human interaction, indicating that the environment provides a social influence on participants (Fox, Janssen, Yeykelis, Segovia, & Bailenson, 2014).

The use of virtual rehearsal environments with immediate coaching and feedback maximizes the opportunity for students to improve future performance. Coaching is a way of using inquiry, providing feedback, and generative thinking to improve performance (Taylor & Chanter, 2019). In a review of over 8,000 studies, feedback was determined to be the most powerful single modification for expertise development (Hattie, 2009). Feedback can add value to the practice by identifying specific targeted components or misconceptions to build capacity of another in a contextualized experience (van Diggelen, den Brok, & Beijaard, 2012). Feedback that supports learning the most is close to the behavior, and clarifies what is correct and incorrect, and how to remedy misconceptions or ineffective practice. (Hattie, 2009; Taylor & Chanter, 2019; Taylor, Watson, & Nutta, 2014). Kluger and DeNisi (1996) saw feedback as an intervention to close the variability between desired and current performance. To improve performance, Hattie (2009) described an effective model of feedback, which includes: feed up (the goal), feedback (the result), and feed forward (next steps; p.176). By utilizing this coaching feedback model, the learner can become metacognitive of his or her own performance, adjust the performance, and continually improve proficiency (Hattie, 2009).

Methods

To complete this study on students' perceived value of the mixed reality experience and coaching feedback, the researchers designed a mixed-methods study implementing a convergent design, where both quantitative and qualitative data were collected and analyzed (Creswell & Plano Clark, 2018). Quantitative data collection was completed through the use of three survey instruments, while qualitative data collection was completed through an analysis of written student reflections following the mixed reality experience.

Population and Sample

The population of this study consisted of educational leadership students enrolled in master's degree in educational leadership (M. Ed.) program in one large university in the southeastern United States. The convenience sample used in this study was comprised of students enrolled in two target courses in the educational leadership program delivered in a face-to-face mode from the fall 2013 semester through the spring 2015 semester ($N = 141$). Both courses from which the convenience sample was drawn focused on communication skills development related to interacting with parents or teachers; thus, researchers chose these two target courses for inclusion in the study. Instructors of the two target courses agreed to include the mixed reality experience as part of students' learning experiences. Additionally, following the administrative internship and practice prior to graduation in the spring 2015 semester, participants ($N = 61$) were provided an opportunity through the program exit survey to provide additional and anonymous feedback as to the perceived value of the simulation practice and coaching feedback after completion of the administrative internship.

Data Collection Procedures

As part of the preparation to enter live situations during the required administrative internship, educational leadership students participated in two mixed reality experiences as part of a scaffolded instructional process. Through the mixed reality experiences, educational leadership students participated in a virtual rehearsal focused on specific, targeted communication skills practice where they applied theory to practice. Prior to participating in the mixed reality experience, students reviewed course-specific scenarios (i.e., a parent-based scenario or teacher-based scenario) developed by two of the authors. Students then completed a 10-minute conference with an interactor using a scenario. Two example scenarios, one from the parent conference simulation and one from the teacher conference simulation, follow.

Scenario 1: Parent Conference

Sean is an excellent student, but recently there has been a marked change in his behavior which several teachers have commented on. For the first time ever, Sean was given a detention due to his rude behavior and attitude in his mathematics class. What was particularly worrying is that Sean did not seem concerned about his behavior. His teacher called home to communicate her concerns to Sean's mother and was astounded by the response that she received. Sean's mother was abusive on the pone blaming the school for Sean's deteriorating behavior and attitude. In particular she focused on the teacher, who she said had humiliated Sean in class and seemed to hate her son. Sean no longer wanted to go to school in the morning and this was causing a great deal of stress at home. Sean's mother, Jeanette McGowan has agreed to come in for a conference with you, the administrator."

Scenario 2: Post Teacher Observation Conference

Mrs. McGowan, a first year teacher, has arrived for her post observation conference. You arrived at her class prior to it beginning so you could observe the critical first few minutes of class. Students entered the class while she was doing something on her computer and organizing materials at her desk. They proceeded to converse with one another, engage with their Netbooks, iPads, and phones. Four minutes after the bell rang to indicate the start of class, Mrs. McGowan welcomed the students and asked them to take out their books and begin reading silently on page 23, after which they were to copy down the questions she had on the Smartboard and respond to them. After giving these directions, Mrs. McGowan returned to her desk and once again engaged with the computer.

At the conclusion of each of the two 10-minute mixed reality experiences, students received immediate coaching from an expert who gave supportive, but direct feedback on students' performance. As participants exited the simulations, perception surveys (Educational Leadership Parent Conference Simulation Feedback and the Educational Leadership Teacher Conference Simulation Feedback) were completed, collecting both demographic variable data and perceptions of the simulation practice and coaching experience. The completion of the survey was confidential in that the instructor knew who participated, but did not know which participants completed which survey.

Quantitative Instrumentation and Data Analysis

Quantitative instrumentation. A total of three survey instruments were utilized to collect quantitative data for this study. The first two instruments, the Educational Leadership Parent Conference Simulation Feedback and the Educational Leadership Teacher Conference Simulation Feedback instruments (referred to as the simulation exit surveys), were designed by the researchers to ascertain participants' perceptions of preparedness as a school leader for parent and teacher communications immediately after the virtual rehearsal experience. Both instruments were developed by the authors based on course objectives. Prior to collecting data, the two survey instruments were piloted with educational leadership faculty, including the course instructors, to ensure content validity. The instruments' Likert-style items for each mixed reality experience were: (1) As a result of this simulation, I feel more confident in speaking with (parents/teachers), (2) The simulation was helpful and should continue to be included in the M. Ed. program, (3) The simulation was realistic (4) This simulation was beneficial (5) The coach's feedback was helpful. Unique to the teacher conference instrument was item (6) I feel more comfortable setting improvement goals with a teacher. Each item was rated by participants on a 5-point Likert scale: (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree (4) Agree, and (5) Strongly Agree.

After completion of a two-semester administrative internship in the field, the M. Ed. Educational Leadership students completed the online Educational Leadership Exit Survey which included four items related to the simulation experiences, the third survey instrument used in the study. The first survey item related to the virtual rehearsal experience was, "I participated in an experience while in the educational leadership program." If students selected yes, then they were given three more items: (1) Participation in an observation feedback conference simulation increased my effectiveness in giving feedback, (2) Participation in a parent conference increased my effectiveness in communicating with parents, and (3) I recommend that the faculty continue the use of mixed reality before the students participate in experiences in real time (Educational Leadership Exit Survey, 2014). Each item had a 4-point Likert scale: (1) strongly disagree, (2), Disagree, (3) Agree, (4) Strongly Agree.

Quantitative data analysis. Descriptive statistics were used to analyze the responses to each item on the two virtual rehearsal mixed reality experience surveys. Surveys contained items ranging from strongly disagree to strongly agree on a 5-point Likert scale. From the participant responses, central tendency, frequencies, mean, mode and percentages were calculated. Response means for each item and an overall mean were calculated for each virtual rehearsal mixed reality experience.

The final data gathered and analyzed with descriptive statistics were from the M.Ed. program exit survey completed the semester of graduation. The survey contained three items specific to the TeachLivE™ simulation experience, with responses ranging from strongly disagree to strongly agree on a 4-point Likert scale. Similar to the surveys completed immediately after the experience,

these responses yielded central tendency, frequencies, mean, mode, and percentages. Response means for each item and an overall mean were calculated.

Qualitative Instrumentation and Data Analysis

Qualitative instrumentation. In both of the targeted courses, students were required to complete a one- to two-page reflection on the mixed reality experience. In the reflection, instructors of both courses asked students to reflect on what went well during the mixed reality experience and to determine what would they do differently in a similar situation, based on the coaching feedback and theoretical knowledge presented in the courses. Fifty-five de-identified reflections were shared with the researchers for analysis.

Qualitative data analysis. Student reflections provided by the course instructors on the experience were analyzed qualitatively by identifying commonalities and patterns through the constant comparison method (Glaser & Strauss, 2008). A total of 55 student reflections were collected from course instructors and analyzed by the researchers. In the examination of the reflections, three broad categories arose from the analysis. The broad categories were coded, yielding 132 individual data points related to the broad categories. Then, the categories were compared and integrated to determine themes related to student perception of the mixed reality experience (Glaser & Strauss, 2008).

Findings

The results of the quantitative and qualitative analyses are presented here. First, findings related to developing communication skills with parents and teachers are discussed as determined by survey results. Then, findings related to the coaching and feedback in the experience are presented from survey results. Finally, the results section concludes with the presentation of the qualitative findings from students' written reflections.

Quantitative Data Analysis: Developing Communication Skills and Coaching Feedback

The Educational Leadership M. Ed. students ($N = 141$) indicated through responses on the simulation exit surveys that they believed the parent conference and teacher post observation conference virtual rehearsals with feedback were helpful in developing administrative conferencing and communications skills with parents and teachers. To begin, most participants agreed or strongly agreed (94%) that the simulation experience was realistic. The perceptions of the simulation being realistic practice were clustered in agree and strongly agree with parent conference were ($M = 4.63$) and teacher conferences ($M = 4.46$). Moreover, the majority of participants (90%) indicated that they agreed or strongly agreed that the simulation made them feel more confident in speaking to parents and teachers. Specifically, the participant perceptions for the simulation being helpful in building confidence in communication skills were rated highly on a 5-point scale for the parent conference ($M = 4.41$) and for the teacher conference ($M = 4.14$). In terms of finding the virtual rehearsal to be beneficial in developing conference communication skills, participants' responses from parent conference participants ($M = 4.71$) teacher conference participants ($M = 4.59$) were high on a 5-point Likert-type scale.

In addition to finding the experience realistic and beneficial in developing their communication skills, participants also found the feedback provided by the coach to be helpful. On

the 5-point Likert-type scale, the perception of the coaching feedback being helpful, 97.2% of participants (n = 137) responded agree or strongly agree. Only two participants (1.4%) disagreed or strongly disagreed. The mean score for the parent conference participants was 4.86 with 98.5% of participants indicating they agreed or strongly agreed. For teacher feedback, the mean score for participants was 4.76 with 95.6% indicating they agreed or strongly agreed.

On the exit survey given in a later semester at the conclusion of the two-semester administrative internship, participants indicated high value of the mixed reality simulation with the experience being beneficial to the development of speaking confidence when conferencing with parents (M = 3.57) and giving feedback to teachers (M = 3.56) on a 4-point Likert-type scale. Responses also were consistent for program continuance; most participants agreed or strongly agreed that the virtual rehearsal should continue immediately following the mixed reality practice simulation (97.2%) and after completing the internship (98.4%). The mean score for the parent conference participants was 4.84 and the mean score for the teacher post-observation conference participants was 4.39.

Building confidence in speaking and professional experiences. Simulation exit survey data related to confidence in speaking were analyzed by the professional experiences of participants and by the years of experience in education. Findings from this analysis indicated that 127 participants (90%) agreed or strongly agreed that the simulation was helpful in building their confidence in speaking across the categories of years of experience or job title. Furthermore, as part of the simulation exit surveys, participant professional experiences (i.e., job title in their school districts at the time of the study) were gathered in which 115 of the 141 (81.5%) participants indicated a current job title that required a Florida Department of Education professional license. Results of this analysis indicated that eight participants were administrators in central office administrative roles, 87 participants were classroom teachers, and 20 participants were instructional support in instructional coaching roles. Participants also provided information regarding years of experience in education (i.e., number of years in the educational field). There were no participants who had less than one year experience, 36.5% percent indicated between one to three years of experience, 29.5% indicated between four and six years of experience, 15.6% indicated between 7 and 10 years of experience and 18.2% indicated 11 or more years of experience in education. Table 1 provides a detailed account of years of experience, job title, and perceptions of the experience in helping with building confidence in speaking.

Table 1

Confidence in Speaking with Parents and Teachers Simulation Survey Responses and Years of Experience in Education

Total Years of Experience and Job Classification	Strongly Disagree $n = 1$	Disagree $n = 2$	Neither Agree or Disagree $n = 7$	Agree $n = 61$	Strongly Agree $n = 44$
Less than one year					
Administrator	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Classroom Teacher	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Instructional Support	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
1-3 years					
Administrator	0 (0.0)	0 (0.0)	0 (0.0)	3 (2.6)	1 (0.8)
Classroom Teacher	0 (0.0)	0 (0.0)	1 (0.8)	16 (14.0)	19 (16.6)

Instructional Support	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	1 (0.8)
4-6 years					
Administrator	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.7)
Classroom Teacher	0 (0.0)	0 (0.0)	2 (1.7)	14 (12.2)	11 (9.6)
Instructional Support	0 (0.0)	0 (0.0)	0 (0.0)	5 (4.3)	0 (0.0)
7-10 years					
Administrator	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)
Classroom Teacher	1 (0.8)	1 (0.8)	1 (0.9)	5 (4.3)	3 (2.6)
Instructional Support	0 (0.0)	0 (0.0)	0 (0.0)	4 (3.5)	1 (0.8)
More than 10 years					
Administrator	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Classroom Teacher	0 (0.0)	0 (0.0)	2 (1.7)	7 (6.1)	4 (3.5)
Instructional Support	0 (0.0)	0 (0.0)	1 (0.8)	5 (4.3)	2 (1.7)

Note: Disaggregated by current job title N = 115. Source: H. Buckridge (2016) p. 109

Qualitative Data Analysis: Student Reflections on the Virtual Rehearsal

Qualitative analysis of the 55 participant reflection assignments revealed four themes: (a) retelling of the experience without reflection (10.6%), (b) simulation experience (15.15%), (c) coaching and feedback (25%), (d) and participant personal performance (49.25%). As participant reflection was analyzed, participant responses were further delineated as either general or specific comments. General and specific comments were related to each of the four themes.

Simulation experience. The examination of general comments focused on the simulation experience were examined further for additional details. This analysis led to the subtheme that the simulation was beneficial (53.8%) because it was realistic (23.1%), and valuable (23.1%). Specific comments focused on the simulation experience revealed two equally occurring themes: realistic practice (42.8%) and confidence in communication (42.8%). One participant reflection comment encompassed the value of the practice, "If I could log more hours and experience different scenarios, that I would become a stronger administrator. I have learned I need much more practice, and would like much more practice. I wish there was a way that students could sign up to practice whenever they could."

Coaching and feedback. Each general comment focused on the coaching and feedback category was examined resulting in themes focused on clear communication (62.5%), confidence in conferencing (25%), and importance of having critical conversations (12.5%). Specific comments focused on coaching and feedback resulted in themes related to improving communication skills (55.5%) and confidence in conferencing skills (33.3%). One participant shared, "There was a point when we were both talking at the same time and she [the avatar] stopped to apologize. I immediately told her that was fine and let her continue. This is the part of the coaching session that was brought to my attention. I was told that I did a good job at listening to her and making her feel special. I learned that it is ok to let others have the floor even though you are the leader." Another participant stated, in relation to improving communication skills, "From the feedback, I realized I missed several key points. In my haste I failed to explain that her son was upset."

Participants' personal performance. As with other general comment categories, personal performance was examined further resulting in subthemes: importance of planning (41.3%), need to be clear in communication (34.8%), increasing confidence while conferencing (17.4%), and being professional during conferences (6.5%). Specific comments on personal performance resulted in subthemes: communication skills (42.1%), confidence in speaking (31.6%), and planning (21.0%). One participant reflection stated, "I learned I need to focus better on what parents are telling me in

a meeting. Listening carefully and pausing to create a correct response would result in a more successful meeting." Another student encapsulated professionalism by stating, "I found it somewhat uncomfortable that the scenarios were based around students I didn't know. This stressed the importance of being highly visible within my school so I can maintain relationships with my students, families and staff."

Discussion and Implications for Practice

The discussions and implications for practice begins with a discussion of educational leadership students' perceptions of the perceived value of developing conferencing communication skills for parents and teachers through virtual rehearsal. Then, students' perceived value of the coaching feedback following the simulation is discussed. The discussion concludes with students' ability to reflect on practice as a result of the virtual rehearsal.

Communication Skills Development

The virtual rehearsal experience provided educational leadership students with the opportunity to practice conferencing in a low professional risk environment where they could make deep curricular connections between (a) effective communication strategies for engaging with parents and teachers and (b) application of the communication skills in the simulation (Dieker et al., 2012; Dieker et al., 2008; Sch n, 1983). Through the simulation, students engaged with a realistic avatar who simulated with accuracy the complexity involved in communicating with a parent or teacher in similar conferencing situation (Fox et al., 2014; Rees Dawson, & Lignugaris-Kraft, 2013). Triangulation of both survey responses and participants' written reflections, revealed that the realistic experience of the simulation was valuable and aided participants in their development of communication skills. General comments found in student reflections on the favorable experience of the simulation were consistent with Likert-scaled survey items. Specifically, the simulation experience furthered students' confidence in communicating with parents and teachers. In fact, educational leadership students found the experience so valuable that they expressed a desire to have more mixed reality practice opportunities to improve communication performance. Additionally, the perceived value of the simulation experience in building communication confidence held true for participants independent of years of experience in education and current job title (e.g., administrator, teacher, or instructional support).

Coaching Feedback

Of the participants, 137 of them found the coaching feedback given during the simulation to be helpful in building their confidence in communicating with parents and teachers. As a result of the coaching feedback, participants identified communication skills and behaviors they should retain and communication skills and behaviors they needed to continue to develop. By being provided focused feedback immediately following the simulation practice, participants were able to hone specific, targeted skills (van Diggelen et al., 2012) needed to communicate with parents and teachers effectively. Furthermore, the targeted practice with focused feedback emphasized what was correct and not correct and how to modify target skills for effectiveness (Hattie, 2009; Taylor & Chanter, 2019; Taylor et al., 2014).

Previous research in using mixed reality with teachers with student scenarios suggested that four 10-minute sessions changed target professional behaviors, and the improvements transferred into professional practice in classrooms with students (Straub, Dieker, Hynes, & Hughes, 2014). It is likely that educational leadership students also transferred improvements in communicating with parents and teachers into the two-semester administrative internship based on the high value participants placed on feedback in the exit survey. This may be because the coaching feedback provided following the simulation was predicated on the model espoused by Hattie and Timperley (2007) with feed up (where am I going?), feedback (how am I going?), and feed forward (where to next?; p. 87). Within this context, students knew they were going to engage in targeted communication skills practice, coupled with feedback on their personal performance, and reflection to identify their next steps as they continue to develop communication skills. The perceived value of the mixed reality experience, therefore, stemmed from the ability to practice in a realistic setting, to receive focused feedback on targeted skills, and to reflect on the experience to identify future skills enhancements.

Reflecting on Practice

The simulation experience also served as a vehicle to facilitate reflection to improve performance (Taylor & Chanter, 2019). Participants' written reflections on the experience underscored the connection between the virtual rehearsal and students' ability to reflect on their personal performance in relation to communication skills development. By using reflective practice as a component of learning through experience in the simulation (Harvey, Coulson, & McMaugh, 2016), participants were able to reflect on various aspects of their personal performance, including being clear when communicating, having confidence while conferencing, and being professional during conferencing. Moreover, the reflective practice highlighted communication skills participants perceived as warranting further development based on their personal performance during the simulation. As a result of the reflective practice, participants identified actions that would have resulted in a successful conference such as listening carefully.

Limitations

The limitation of the study is that it took place in one university educational leadership master's degree program over five consecutive semesters. Although the school community and students are diverse, the study was limited to one geographic region in central Florida. Furthermore, the study did not endeavor to objectively ascertain the expertise of the students once they were in the school environment and relied only on students' perceptions of their ability to successfully engage in administrative conferences with parents and teachers.

Conclusion

This study led to the finding that practicing critical content focused on communication skills in a low professional risk environment with feedback and reflection is important before becoming an administrator accountable for communicating with parents and teachers. Based on the findings of this research study, it is recommended that administrator preparation programs have access to realistic models and practice with feedback prior to engaging in administrative conferencing situations. Furthermore, current administrators may also benefit from ongoing practice

opportunities to improve their conferencing communication skills with all stakeholders. Continuing research should consider how many mixed reality sessions are needed to improve target skills for those in administrator preparation programs and those already serving as administrators in schools and school districts.

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