

# Using Simulation Environments for HLP #3: Collaborate with families to support student learning & secure needed services



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**Definition:** Mixed reality simulation (MRS) is a type of simulated interaction that is gaining popularity in teacher preparation. It is a well-validated approach for candidates in fields outside of education, including the military and medical field (McGaghie, Issenberg, Petrusa, & Scalese, 2010), and has been applied successfully in a small number of studies in education. MRS extends upon traditional role play and allows pre- and in-service teachers the opportunity to purposefully practice important teaching strategies they are learning about before, or alongside, their K-12 field experiences (Driver, Zimmer, & Murphy, 2008). The key difference is that MRS allows for interaction that mimics an authentic classroom setting. Education simulations allow pre-service teachers to practice decision-making and instructional skills in an environment that mimics how real K-12 students might respond and adjust their actions based on those responses (Dieker, Hynes, Hughes, & Straub, 2014). Further, the simulations provide meaningful opportunities for instructor and peer coaching and feedback (Zimmer, Driver, & McHatton, 2020). Research on simulated interactions have been shown to yield changes in knowledge and instructional skill (Dawson & Lignugaris-Kraft, 2017; Garland et al., 2012; Storey & Cox, 2015; Vasquez III et al., 2017).

**Description of this activity:** In this PLO, Dr. Melissa Driver describes how to use MRS to teach candidates the knowledge and skills needed to collaborate with families to support student learning and secure needed services (HLP #3). Candidates play the role of an inclusion teacher in an English language arts middle school classroom. To ready themselves for the simulation, candidates analyze a student's data and prepare an agenda for the meeting. During the simulation, they have the opportunity to enact HLP #3 with a parent avatar who is played by a live actor. The avatar responds to the candidate's attempts based on directions provided. After the simulation concludes, peers and/or the faculty member can provide feedback to the candidate using a rubric. If peers provide feedback, they will need to be coached to do so. This PLO addresses the second and fourth phase of the Enactment Cycle. Note: This MRS can also be conducted as a role play; candidates or fellow teachers can play the role of the parent.

[Listen to Dr. Kate Zimmer describe MRS and how it can be used.](#)

**Context:** The Mursion simulation presented in this activity can be employed at different points in the teacher education program or in professional development efforts. The activities described in the

implementation guide can be used in their entirety, or specific components can be used depending on candidates' or teachers' instructional needs (e.g., integrated in coursework, ongoing professional development, professional learning communities). This resource is designed to be customizable, depending on the needs and prior knowledge of candidates and the context of the learning community. The simulation can also be combined with the Mursion simulation focused on formative assessment (HLP #6). In this case, the simulation targeting HLP #6 should be completed first.

## Stage 1: (Pework) Developing Prerequisite Knowledge

-What is this stage about?

In this stage, candidates develop the prerequisite knowledge and skills they need to enact HLP #3. To acquire prerequisite knowledge, have candidates complete the following steps and activities.

-How does the instructor implement this stage?

**Step 1:** Watch a brief [video](#) in which a parent describes her journey as a parent of a child with a learning disability. Discuss with candidates the emotions, difficulties, and successes shared. Review the additional provided resources on specific learning disability ([Resource A](#)).

**Step 2:** Candidates complete the [IRIS Center Module \(Resource B\)](#)

**Step 2.1:** Work through the Challenge, Initial Thoughts, Perspectives & Resources, and Wrap-Up within the module.

**Step 2.2:** After completing the first four sections of the module, please respond to the assessment questions in [Resource C](#). **Do not** respond to the assessment questions in the IRIS module.

**Step 3:** Deepen knowledge about collaborating with families. Select three of the articles provided in the materials and resource section ([Resource D](#)). Have candidates use the selected articles to complete the Collaboration and Pework Chart provided in [Resource E](#).

**Step 4:** Consider cultural and linguistic considerations when meeting with family members. Candidates read the following articles ([Resource F](#)) and respond to the prompts in the Collaboration and Pework Chart provided in [Resource E](#).

**Step 5:** Improve understanding of transition issues and transition planning for secondary students. You will plan for a student interested in college and should pay attention to issues that are relevant in the reading. Read the article and review the website provided in [Resource G](#) and complete the chart provided in [Resource E](#).

-Materials/Resources needed to implement

**Resource A:** [Learning Disability Resources](#)

- Consider the emotions, difficulties, and successes shared in this [video](#)
- Watch this [video on specific learning disability](#)
- [Fuchs, L. S., & Fuchs, D. \(2009\). Creating opportunities for intensive intervention for students with learning disabilities. \*Teaching Exceptional Children\*, 42\(2\), 60-62.](#)
- Explore the following websites:
  - <https://www.ldonline.org/getting-started/ld-basics>

- <https://www.teachingld.org/>

**Resource B:** Iris Module

**Resource C:** Iris Assessment Questionnaire

**Resource D:** Collaborating With Families

- [Currie-Rubin, R., & Smith, S. J. \(2014\). Understanding the roles of families in virtual learning. \*Teaching Exceptional Children\*, 46\(5\), 117-126.](#)
- [Edwards, C. C., & Da Fonte, A. \(2012\). The 5-point plan: Fostering successful partnerships with families of students with disabilities. \*Teaching Exceptional Children\*, 44\(3\), 6-13.](#)
- [Sears, J. A., Peters, B. L., Beidler, A., & Murawski, W. \(2021\). Using relationships to advocate with, for, and to families. \*Teaching Exceptional Children\*, 53\(3\), 79-87.](#)
- [Sawyer, M. \(2015\). BRIDGES: Connecting with families to facilitate and enhance involvement. \*Teaching Exceptional Children\*, 47\(3\), 172-179.](#)

**Resource E:** Collaboration and Prewrite Chart

**Resource F:** Cultural and Linguistic Readings:

- [Francis, G. L., Haines, S. J., & Nagro, S. A. \(2017\). Developing relationships with immigrant families: Learning by asking the right questions. \*Teaching Exceptional Children\*, 50\(2\), 95-105.](#)
- [Rossetti, Z., Sauer, J. S., Bui, O., & Ou, S. \(2017\). Developing collaborative partnerships with culturally and linguistically diverse families during the IEP process. \*Teaching Exceptional Children\*, 49\(5\), 328-338.](#)

**Resource G:** Transition to college

- [Connor, D. J. \(2012\). Helping students with disabilities transition to college: 21 tips for students with LD and/or ADD/ADHD. \*Teaching Exceptional Children\*, 44\(5\), 16-25.](#)
- [National Technical Assistance Center on Transition](#)

**Resource H:** Video focused on communication and listening

**Resource I:** Reading on communicating assessment data

- [Blackwell, W. H., & Stockall, N. \(2019\). RISC: Four steps for interpreting and communicating high-stakes assessment results. \*Teaching Exceptional Children\*, 51\(4\), 265-275.](#)

**Resource J:** Communication Rubric

-Questions faculty/professional development providers might have when teaching candidates about Stage 1

- A lot of prework is necessary in this phase. How do I structure this work in my course and/or professional development so that it is not overwhelming for candidates?
  - A range of resources is provided for you to select for your unique learning context. Teacher preparation program faculty will likely use more of the prework than inservice professional development providers given the prior knowledge and time constraints inservice teachers will have.
  - Likewise, if this simulation is embedded into one to two class sessions in a program course covering a range of topics, the faculty member will likely need to prioritize which of the readings, videos, and

learning activities will have the greatest impact given their candidates' prior knowledge and understanding. Consider prioritizing areas for which candidates may have received less direct instruction, such as developing culturally and linguistically diverse partnerships and effective communication strategies.

- For a course on effective collaboration the prework readings and activities can be scaffolded across one to two weeks leading up to the planning stage.

## Stage 2: Planning Stage

-What is this stage about?

In this stage, candidates learn how to prepare for a parent conference meeting. Part of this preparation may include developing knowledge needed to use the Mursion simulator if they are unfamiliar with it.

-How does the instructor implement this stage?

**Step 1:** Review the scenario for the simulation [Resource K](#)

**Step 2:** Choose one of the parent advocacy websites, groups, and resources within the Collaboration and Prework Chart ([Resource E](#)) to share with Mr. Reed in the meeting.

**Step 3:** Review Harrison's IEP ([Resource L](#)) and recent progress monitoring reading fluency data ([Resource M](#)) to prepare for the meeting.

**Step 4:** Skim the articles and websites included in [Resource N](#) to support meeting preparation.

**Step 5:** Draft an agenda for your upcoming meeting with Mr. Reed ([Resource O](#))

-Materials/Resources needed to implement

**Resource E:** [Parent resource list](#)

**Resource K:** [Full scenario for the simulation](#)

**Resource L:** [Harrison's IEP](#)

**Resource M:** [Harrison's progress monitoring data](#)

**Resource N:** Meeting resources

- [National Center for Intensive Intervention \(NCII\): A Practitioner's Guide for Communicating with Parents and Families](#)
  - [The NCII Tips for Families infographic](#)
  - [National Technical Assistance Center on Transition, specifically Transition Planning Process](#)
- [Zirkel \(2020\). An updated primer of special education law. \*Teaching Exceptional Children\*, 52\(4\), 261-265.](#)

**Resource O:** [Meeting Agenda Template](#)

-Questions faculty/professional development providers might have when teaching candidates about Stage 2

- **What if my candidates are unfamiliar with progress monitoring data?**
  - This scenario is designed to be implemented for a range of candidates. Depending on your candidates' prior knowledge of progress monitoring, you may want to supplement with additional prework or structured supports as they engage in this scenario. If the progress monitoring chart and sample reading probe are confusing for candidates, consider modeling how you would interpret and effectively communicate the data. If candidates have previously completed a progress monitoring course, allow them to make their own inferences and plan the conversation.
  - The National Center for Intensive Intervention has excellent resources to support candidates' further understanding of progress monitoring. <https://intensiveintervention.org/intensive-intervention/progress-monitor>
- **Should I provide guidance to my candidates about what information to look for in the IEP?**
  - Yes, guidance could be a useful supplement depending on candidates' familiarity with IEPs. For special education candidates, instructors may want to provide less guidance (than they might provide to general education and leadership candidates) about information to look for to encourage exploration and familiarity with the IEP components.
  - If the instructor provides less guidance on navigating the IEP, then candidates may require more time to explore the IEP.
- **What if my students do not have a deep understanding of learning disability characteristics and instructional needs?**
  - Consider including more articles and resources focused on learning disabilities in your prework. It may also be helpful to revisit some of the article content while students are reviewing Harrison's IEP and assessment data to facilitate connections with candidates.
- **Do candidates participate as individuals or partners in the simulation?**
  - Candidates can participate as individuals or partners. An individual approach assumes the inclusion teacher, played by the candidate, has previously analyzed and discussed the data with a fictional general education co-teacher. This data analysis and discussion can be done as a class or independently. Alternatively, candidates can be paired, and one can be assigned as the special education teacher and one as the general education teacher. The inclusion teacher collaborates with the co-teacher, and together, they analyze benchmark data from the first nine weeks of school to prepare for the parent conference, create an agenda for a meeting with the parent, and then engage together in the simulated conversation with the parent avatar.

## Stage 3: Implementation Stage

-What is this stage about?

In this stage, candidates practice enacting HLP #3 by participating in a MRS parent/teacher conference with Harrison's father, Mr. Reed. We highly encourage teachers to record their teaching experience/simulation to help with the post-work reflection and growth activities.

-How does the instructor implement this stage?

**Step 1:** Instructor schedules MRS sessions and meets with lab personnel. Instructor provides Full Scenario for Simulation Specialist ([Resource P](#)) to prepare for the simulation

**Step 2:** Instructor ensures that candidates have access to the virtual platforms and understands how interactions are scored (review Communication Rubric in [Resource J](#)).

**Step 3:** Candidates video tape themselves in the simulation to review and reflect afterwards.

-Materials/Resources needed to implement

**Resource J:** [Communication Rubric](#)

**Resource K:** [Full Scenario for Simulation](#)

**Resource O:** [Meeting Agenda Template](#)

**Resource P:** [Full Scenario for Simulation Specialist \(Hits/Misses\)](#). *Note that the information in Resource P is only for the instructor/facilitator and not to be shared with teacher candidates.*

-Questions faculty/professional development providers might have when teaching candidates about Stage 3

- **How do I prepare for the simulation?**
  - Preparation varies depending on the MRS lab with which you partner. After you schedule a time with your lab, the lab will communicate with you to plan the scenario and also discuss lab logistics (e.g., all meeting agendas or lesson plans must be submitted at least one week in advance, cancelation policy).
  - The information you will need to provide the lab in advance is in [Resource K](#): Full Scenario and [Resource P](#): Hits and Misses. The lab may have a preplanning meeting to discuss the upcoming session and align expectations. If you do not have specific information from Harrison's IEP or the progress monitoring data you want addressed by the parent avatar, you will inform the lab at this time.
- **What technology is needed for the simulation?**
  - MRS can be done in person in a physical lab or virtually using a video conferencing platform.
  - For sessions in a physical lab, students will not need any technology; the lab will provide everything.
  - For virtual sessions, typically candidates will only need internet, a video camera connected to their computer, and a microphone connected to their computer so that the avatars can see and hear the candidate interact.

- At the start of each session, the lab will facilitate a technical check to ensure that all technology is working correctly before beginning the planned scenario.
- **How do I schedule and structure candidates' time in the simulator?**
  - Candidates can practice their conversation with the parent avatar, Mr. Reed, either individually or in a group setting with classmates watching their interactions. Pros and cons exist for both approaches. We recommend that both types of sessions are recorded so the candidates can later view and reflect on their practice.
  - For group sessions, each candidate should have approximately 10 minutes to engage with the parent avatar and facilitate the meeting agenda planned in [Resource P](#). Group sessions can be helpful to ease nerves about the technology as the instructor has the opportunity to introduce and briefly model interacting with the avatars. Candidates can view their peers interacting with the avatars and learn from each other. They can also debrief as a group. Depending on the class size, scheduling practice opportunities for all candidates in larger classes can be difficult. Instructors should also be mindful that candidates may fatigue and lose interest after seeing multiple sessions with the same objective and similar approaches.
  - For individual sessions, candidates can sign up for a 10-minute session from available time slots. The student will log in to the session from a link provided and engage in the conversation with the avatar. After the session, a recorded link will be sent to the student and/or instructor. Communicating with the lab that these sessions should be recorded and the process for obtaining the link for students is especially important. The student and/or instructor can view the video to score on the communication rubric. Keep in mind that although this can save time for the students, if the instructor plans to watch all the videos, the process can be very time consuming.

## Stage 4: (Post-Work) Reflective Stage

-What is this stage about?

In this post-work stage, candidates analyze and reflect on their experience of being the simulator while participating in a parent/teacher conference. They evaluate their own practices and each other's practices to reinforce the learning of this PLO. Instructors can also provide feedback to candidates.

-How does the instructor implement this stage?

After students have reviewed their own video, the instructor may place candidates with partners or in small groups so that they can reflect on other's recorded session in the simulation lab. Instructors who facilitated a whole-group simulation session may choose to omit this stage of peer feedback if sufficient peer feedback was provided during the session after each candidate engaged in the scenario and an opportunity for a whole-group debrief took place. We recommend that each candidate have at least one completed Peer Feedback Form to reflect on.

**Step 1:** Candidates watch the video of their simulated parent teacher conference.

**Step 1.1:** Candidates reflect on their video and lesson plan and score it using the communication rubric ([Resource J](#))

**Step 1.2:** Candidates complete additional reflection prompts in [Resource Q](#)

**Step 2:** Candidates watch a peer's video of his or her simulated parent teacher conference

**Step 2.1:** Candidate works with instructor to secure peer's video and lesson plan.

**Step 2.2:** Candidate scores peer on the Communication Rubric ([Resource J](#))

**Step 3:** Candidate provide peer with feedback using the Peer Feedback Form ([Resource R](#))

-Materials/Resources needed to implement

**Resource J:** [Communication Rubric](#)

**Resource Q:** [Reflection Prompts](#)

**Resource R:** [Peer Feedback Form](#)

-Questions faculty/professional development providers might have when teaching candidates about Stage 4

- **How should I use the Reflection Prompts ([Resource Q](#))?**
  - After watching their recorded session in the simulator, regardless of whether in a group or individual setting, candidates should reflect on the provided prompts and make connections to their professional learning goals and development plans. The reflection responses can be used to promote deeper discussion and to inform course instruction.
- **How should I use the Peer Feedback Form ([Resource R](#)) and Communication Rubric ([Resource J](#))?**
  - For group sessions, candidates can fill out the feedback form and/or rubric on each of their peers who engage with the parent avatar during the simulation session. Alternatively, they can fill out the form in small groups. Their responses can be used to contribute to a group debrief and discussion.
  - For candidates who complete their session individually, we recommend assigning or letting them self-select a peer with whom to share their video link. The peer can complete the feedback form and/or rubric based on his or her observation of the video to encourage deeper reflection and additional engagement in the content, as candidates completing the session alone did not have the opportunity to view and learn from interactions with peers.
  - Regardless of whether the form and/or rubric are used in group sessions or individually, the instructor should set norms and expectations for providing safe, positive, and constructive peer feedback.

### **Additional Readings**

If you want to learn more about MRS, you can read the following:

[Dawson, M. R., & Lignugaris/Kraft, B. \(2017\). Meaningful practice: Generalizing foundation teaching skills from TLE TeachLivE™ to the classroom. \*Teacher Education and Special Education, 40\*, 26-50.](#)

[Dieker, L. A., Hynes, M. E., Hughes, C., & Straub, C. \(2014\). \*Using virtual rehearsal in TLE TeachLivETM mixed reality classroom simulator to determine the effects on the performance of mathematics teachers\* \(Technical Report\). Orlando: University of Central Florida.](#)



[Driver, M. K., Zimmer, K., & Murphy, K. \(2018\). Using mixed reality simulations to prepare preservice special educators for collaboration in inclusive settings. \*Journal of Technology and Teacher Education\*, 26, 57-77.](#)

[Garland, K. V., Vasquez III, E., & Pearl, C. \(2012\). Efficacy of individualized clinical coaching in a virtual reality classroom for increasing teachers' fidelity of implementation of discrete trial teaching. \*Education and Training in Autism and Developmental Disabilities\*, 47\(4\), 502-515.](#)

[McGaghie, W. C., Issenberg, S. B., Petrusa, E. R., & Scalese, R. J. \(2010\). A critical review of simulation-based medical education research: 2003-2009. \*Medical Education\*, 44\(1\), 50-63.](#)

[Storey, V. J. & Cox, T. D. \(2015\). Utilizing mixed reality to building educational leadership capacity: The development and application of virtual simulations. \*Journal of Education and Human Development\*, 4, 41-49.](#)

[Zimmer, K., Driver, M. K., & Alvarez McHatton, P. \(2020\). Performance feedback in teacher preparation: Improving preservice teacher use of high-leverage practices through mixed reality simulation. Manuscript accepted to GATEways to Teacher Education.](#)