Developing Professional Knowledge and Skills Using Online Scenario-Based Simulations

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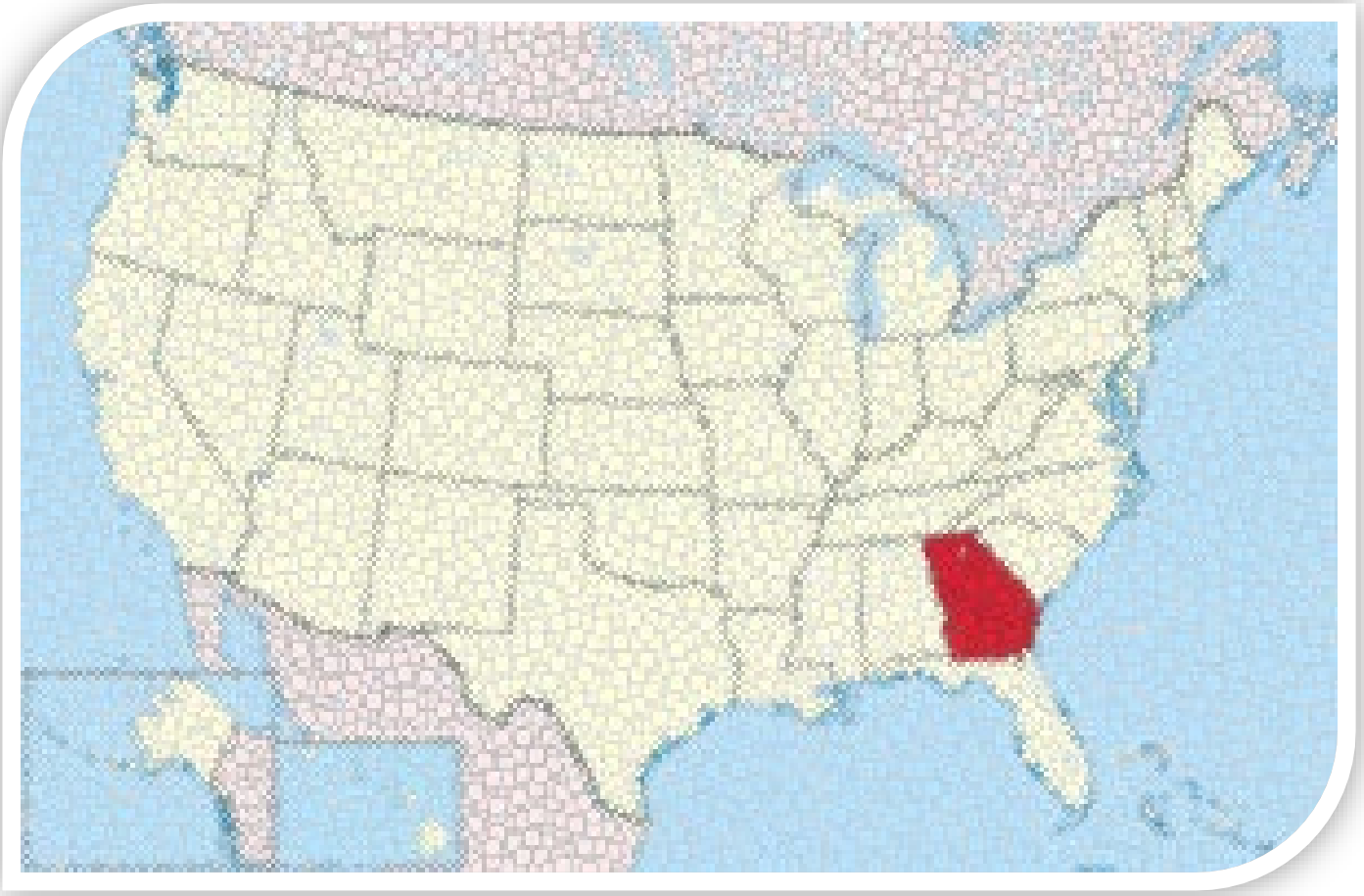
A state university in the southeastern United States delivered scenario-based simulations called UWGLive simulation, powered by Mursion, to improve job performance in co-teaching settings.



The simulation created immersive mixed-reality environments for participants to practice and master certain skills needed in their workplaces.

UWGLive includes situations of adult (e.g., parent, teacher, principal, or other professional) avatars with which a participant can interact. Each avatar, student or adult, has a distinct personality.

UWGLive, as a scenario-based simulation application, includes several virtual classroom environments in PK-12 settings (i.e., upper elementary, middle school, and inclusion classrooms).

UWGLive, as an instructional tool, is versatile in accommo-dating adjustments to meet the needs of other professionals practicing to master their job-specific skills by offering different professional environments such as office spaces, confer-ence rooms, and service settings.

The Simulation Experience

The scenario-based simulation supports teaching and learning activities with undergraduate and graduate students as special education majors.

The simulation provides students with an experience where they can demonstrate communication, collaboration, and negotiation competencies to co-plan a lesson.

The Simulation Experience

Each time participants interact with an avatar, they encounter the same personality and preferences.

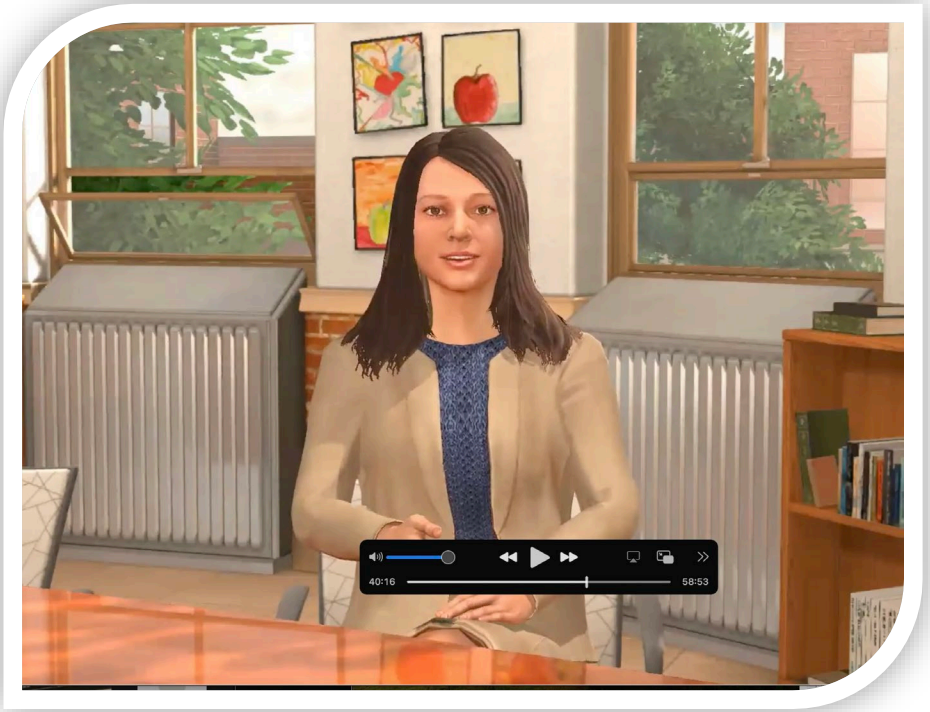
During a simulation, the avatars can see and hear the participants as they present, allowing the avatars to react in real-time.

Participants

- Undergraduate students
- Majoring in special education
- Ready to pursue student teaching experiences
- Working with a general education teacher to plan a lesson

Perceived Values

- Students apply acquired knowledge and practice skills in a safe environment, i.e., the simulation.
- The scenario-based simulation allows the special education major to interact and co-plan a lesson with a general education teacher (avatar).
- The teacher candidate encounters two authentic challenges (general education teacher (avatar) who is resistant to co-teaching and has concerns about teaching students with special needs).
- After the simulation session, students self-reflect and receive instructor feedback.



Co-Teaching Content Knowledge
Reflective Practice
Professional Development
Time Management
Technology Access
Challenges

Reflections

- Practice in working with colleagues and students is key to success as a special education teacher.
- Effective communication skills require opportunities to develop through time.
- Providing authentic scenarios is an important component in developing future special education teachers.
- The ability to observe practitioners in action helps in gauging one’s capacity to perform similar roles.

- Collect quantitative and qualitative data to demonstrate evidence of impact on learning after the simulation experience.
- Design research studies to establish the relationship between demographic characteristics and performance.
- Create new scenarios aligned with competencies expected for special education teachers to develop.

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