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Cal State LA student-teachers interact virtually with avatar pupils in a simulated classroom. Photo credit Cal State LA.

Cal State LA receives NSF grant to enhance STEM teaching in urban schools

Cal State LA has been awarded a threeyear \$586,000 grant from the National Science Foundation (NSF) to train future teachers in math and science instruction using a simulation lab.

The grant will establish Simulations for Minority Interactive Learning Environments (SMILE): A Design and Development Project at Cal State LA. The project will feature a simulation lab that will help prepare elementary teachers who will work in high-need urban schools to offer a successful learning experience in math and science.

Researchers will also study the integration of the use of mixed-reality virtual simulations in teacher preparation across several courses in the university's Multiple Subject Teaching Credential Program. Faculty in Cal State LA's Charter College of Education (CCOE) will create scenarios and develop scripts specifically intended to teach STEM concepts.

"I am grateful to our education faculty who embraced the opportunity to explore how avatar simulation could be used in teacher and counselor preparation," said CCOE Dean Cheryl Ney, who is one of the grant's principal investigators. "Together, we are grateful to the NSF for this opportunity to establish a CCOE Simulation Lab and further research the impact of virtual simulation on the preparation of teachers and counselors who will go on to serve children, youth, and families in our simulations will provide future teachers with opportunities to figure out effective teaching strategies and methods before working with pupils in actual classrooms.

The three-year project will be funded by the NSF's Improving Undergraduate STEM Education: Education and Human Resource Program and conducted in partnership with elementary schools in the Los Angeles Unified School District and other districts. Cal State LA students will be placed into the classrooms for their student-teaching experience.

For the past three years, a group of CCOE faculty have used simulations that enable students to virtually practice instruction, classroom management, meeting with parents, job interviews, and counseling sessions. The simulated pilot activities were organized by CCOE through Cal State Northridge's simulation lab.

"Just as pilots spend long hours using virtual simulators before flying a plane carrying real passengers, it is now possible to provide students studying to be teachers opportunities to virtually practice teaching strategies to enhance learning before serving students in real classrooms," said Costello Brown, a consultant on the project and an emeritus chemistry professor at Cal State LA.

In a survey administered by CCOE, student and faculty participants provided positive feedback on the immersive simulated learning environment. "The experience was very valuable," noted one faculty member, who liked that the virtual environment enabled users to collectively solve problems in a variety of classroom situations. One CCOE student commented: "It was cool to see the avatars react to what we were saying. This made us have to think on our feet to react to what they were saying, which I think is very valuable as a teacher."



The Masonic Lodge parking lot was offered by Hugo Lara and the Alhambra Masons as a staging area, and up to 300 bags of groceries were assembled for distribution.

Alhambra teachers find new ways to serve students

Last March, City Councilmember Adele Andrade-Stadler and Alhambra Teachers Association President Tammy Scorcia were discussing the emerging COVID-19 virus and how it could impact the city and the schools. They concluded the global disease would only get worse and that the city and many of its vulnerable school students would feel the effects of it. They were right. But they were not content to be right; they began doing something about it.

They realized the greatest need faced by many families with school age children would be having enough food. They began conducting food distributions from Alhambra High School in March for economically stretched families verified by the school district. That effort was kicked into overdrive with the added concern of keeping everyone safe from the virus as well. When the schools closed, a new site had to be found for distribution.

Supported by a grant from the National Education Association (NEA), they began marshalling the energy of Alhambra school teachers and cobbled together a growing coalition of sponsors, coordinators, and volunteers. At first an open air curb side service was opened on Second Street between Commonwealth and Main Street, the site of the weekly Farmers Market. But that proved labor intensive and snarled traffic in the area.

So on Dec. 12 the program switched to home delivery. The Masonic Lodge parking lot was offered by Hugo Lara and the Alhambra Masons as a staging area, and up to 300 bags of groceries were assembled for distribution. All volunteers signed wavers and received temperature checks and food distribution was based on no contact delivery. The network of Albertsons, school teachers, and their friends and the Los Angeles Food Bank came through with much of the food, and volunteers filled bags with canned goods, dry goods including cereal and pastas, fresh fruit, and more.

Some of the many team members of this food distribution program include Voice of Immigrant Students of Alhambra High School, the FARMS program at Mark Keppel High School, the Alhambra Teachers Association, the Masonic Lodge, Asian Youth Center, the Alhambra Firefighters Association, the Alhambra Police Association, BMW of Alhambra, Vibiana Andrade, and Republic Services.

This monthly program can benefit neighbors from donations of food and volunteers. To help, contact either Councilmember Andrade Stadler at Andrade3@ charter.net or call 626-378-4550 or Tammy Scorcia, Alhambra Teachers Association, at 626 289-1933.

Emmaus Lutheran School holds Pajama Drive 2020

This is the seventh year students at able to attend their Zoom class dressed in

surrounding communities."

Kimberly Persiani, a professor of education in the Division of Curriculum and Instruction, is a co-principal investigator.

Cal State LA's simulation lab will use the TeachLivE virtual reality software by Mursion. TeachLivE, which offers professional training using computer avatars that simulate pupils in a classroom and interact with users in real time. The virtual



Emmaus Lutheran School have participated in a Pajama Drive. Even though the children are in the midst of remote learning at the school, pajamas for infants through adult sizes were collected and competition was intense. The pajamas they collected were donated to a variety of places such as homeless shelters, orphanages, and foster care organizations.

Giving back to the community is one of Emmaus' values, which they teach their students, and the best way of doing this is through the hands-on idea of giving projects. This project gives the children an example and opportunity to understand the idea that giving is important. The school participated in this program so they can help make a better bedtime for people who are in need. This, like other projects, is voted on by the student council.

They ended their drive by having a Pajama Day on Dec. 17. Students were

their cozy pajamas for that day. Emmaus students have been participating in full day Zoom classes with appropriate breaks for lunch and to rest their eyes and give them a break from screens.

The school's traditional Christmas program was held with classes singing, entertaining, and sharing Christmas joy through a Zoom presentation that is viewable on YouTube at Rmarousek@ EmmausAlhambra.org. Students worked throughout the month of December rehearsing at home and on Zoom to be ready for "prime time" viewing.

The school is in the process of getting a waiver from the County of Los Angeles with the goal of reopening on-site learning for kindergarten through second grade. For information about enrolling a child in Emmaus Lutheran School, please see https://emmausalhambra.org/ enroll-now.