Transcript of a Presentation by Nora Garza and Gabriela Solis-Cavazos (Laredo College), September 16, 2020

Title: RAPID: Using Real Life COVID-19 data to teach quantitative reasoning skills to undergraduate Hispanic STEM students

Nora R Garza CIC Profile

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YouTube Recording with Slides

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Transcript

Katie Naum:

Next Nora Garza and Gabriela Solis-Cavazos of Laredo College. So, I'll let you guys take it away.

Nora Garza:

Slide 1

Thank you very much and thank you all for hosting us with the COVID Information Commons. It's nice to be able to share. I'd also like to thank Laredo College and my RAPID team of faculty members that are part of this group and the RAPID research assistant students that are coming on board as we speak. Gabriela Solis-Cavazos is the co-PI for this grant. Also thank NSF and the HSI program which is funding this RAPID grant. Gabriela Solis is our undergraduate research coordinator for a grant that we have where students are already participating in undergraduate research experiences with faculty partners. So, Gabby for the next slide-

Slide 2

We have a challenge as everyone does. With extra stress on all our undergraduate students, we are a primarily Hispanic on the Texas-Mexico border community college- two-year college, now called Laredo College. We have had like everyone else with coronavirus interruptions in undergraduate research opportunities. For example, our faculty members would work with our students in labs or outdoors, for

example, doing bird counts in our environmental science center even working with virtual mannequins and things- I mean the real mannequins now are real and now they have to have virtual working with these. So, in order to keep our students engaged- I think some of you that do work in education are noticing- are seeing- our students feeling completely overwhelmed. Some of the things that Debbie Kim mentioned exactly the same thing: lack of resources, the digital divide, not all our students have the best technology, the best internet connections. So, this sense of, not hopelessness, but definitely a panic of these are very good students who want to stay connected, want to stay engaged, and want to be successful. And those are our goals exactly.

So, Gabby will give you a little bit more about our solution and what we're doing about it.

Gabriela Solis-Cavazos:

Slide 3

So, when the impossible happens, think of the possible. And with that, our solution was to engage the students in the current pandemic. We want them to generate knowledge and learn about COVID-19 while gathering real time data. With that, we have 20 RAPID students and six faculty students- six faculty members. Okay, we have three objectives that we are trying to meet. Our first objective is to implement a data analysis research experience. The second objective is to create a professional development course for the faculty. And the third objective is to evaluate the project's impact on students' quantitative reasoning skills, their attitudes towards quantitative information, and their subsequent STEM coursework and college success.

Slide 4

So, we will be creating faculty development training for the six faculty mentors. They're going to be assigned reading assignments like the Math for Life. They will be assigned calculation assignments, some discussions, all of which will be done through Zoom. So, we want to know some problems that students face and that we can try and correct. So, both of these images here, they show our faculty working on research projects with our students. In the top right, we have our students learning about water quality with the Rio Grande. And in the bottom, we have Dr. Mang teaching the students about chemical compounds.

Slide 5

We are RAPID research assistant. These are the 20 students that will be working with us. They are going to learn how to collect data online from COVID-19. So right here, we have an image of the Laredo COVID dashboard which is updated daily on COVID cases and we want them to learn how to analyze it and understand what they're seeing. As well that each of them received a thermometer so there will be recording their temperatures, and we want them to report their temperatures to the Kinsa HealthWeather app, which is an application where they're trying to provide information to the public about safety, about diseases, knowing like if there is a group of high temperature, maybe there's

something going on in that area. Overall, we want the students to create a poster and present their research findings to spread their knowledge to others.

<u>Nora Garza:</u>

Slide 6

We are also coordinating with Dr. Esther Wilder at Lehman College. So, this is as much a capacity building project for Laredo College and for our colleagues and for our students to stay resilient and stay engaged, be retained, be success successful STEM majors. If you have any questions, we know we have many questions for you. Some of our students are listening, some of our faculty are listening, but if you have any questions beyond this time frame, you can contact us at that email address. Thank you.