

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
New Worlds - Non-Traditional Space Education and Outreach (7)

Author: Dr. Laura Rodriguez Amaya
Texas State University, United States

Ms. Mariela Ramirez Sanchez
Texas State University, United States

ENGAGING LATINO FAMILIES IN STEM EDUCATION: IMPROVING PARENTAL AWARENESS
AND CONFIDENCE**Abstract**

In addressing the numerous factors that contribute to unequal participation of minorities in science education, many are in agreement that early exposure to STEM careers is essential. Throughout the last decade, researchers have recommended that career exploration and awareness begin before high school. A study that used nationally representative longitudinal data suggests that to attract students into the sciences and engineering, we should pay close attention to children's early exposure to science at the middle and even younger grades (Tai et al, 2006). The concept of elementary school career education has gained momentum in recent years. According to Ediger (2000), "the elementary school years are not too early to begin to achieve a vision of what one desires to do in life contributing to the world of work." The FAMA-Future Aerospace-engineers and Mathematicians Academy - program aims to increase participation and retention of historically underserved and underrepresented students in STEM disciplines by offering early Space-based STEM learning experiences for upper elementary-middle school students, family outreach and professional development for pre-service teachers. The family outreach component includes a STEM home-based learning component. Programs and interventions that engage families in supporting students' learning at home have been linked to student higher academic performance (Henderson and Mapp 2002). However, to design effective STEM home-based family learning interventions, first we need to understand 1) how confident are parents in helping their kids with math and science at home? And 2) what are the cultural variations? This paper will present the findings of the FAMA program on family/parental confidence on assisting their students with their math and science homework in grades 4th through 8th. An exploratory parent survey is being conducted in the San Marcos Consolidated Independent School District in San Marcos, Texas in the U.S. throughout the school year 2015-2016. Data will be analyzed through SPSS and results presented.