Abstract Submitted
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A Study on the Increase in Interest and Positive Perception of STEM Fields Through Student Engagement[1] JORGE CARMONA REYES, Baylor University, SHANNA ATTAI, Retired from Baylor University, ROB ALTMANN, A-PsychEd Publication Services, JOHN DAVIS, University of Utah, JUDY YORK, Education Service Center Region 12, KERRI RANNEY, EMMA BEAIRD, Huckabee, Inc., TRUELL HYDE, Baylor University — Over the past two decades, workforce development within the U.S. Fusion program has been an ongoing issue. One of the long-term strategies for addressing this concern as stated in the final report titled 'Fusion in the Era of Burning Plasma Studies: Workforce Planning for 2004 to 2014,' recommended implementation of outreach programs at all educational levels with the goal to attract a diverse group of students into pursuing a career in fusion science and engineering [Thomas et al, 2003]. Although multiple interventions have been created in an attempt to achieve this goal, they have yet to yield the desired outcome. The approach presented here is based on student engagement at the elementary school level. Because student engagement is dependent on both time and subject, proper measurement in which it changes through any intervention is challenging. This presentation will describe a new measuring tool developed by the authors that can quantify student engagement changes. The long-term goal of this study is to understand how such constructs change and how they depend on the STEM subject explored so that interventions can be more effective in order to increase college STEM classroom sizes.

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