Examining the Relationship Between Educational Goals, Self-Efficacy, and Science Academic Achievement in High School Students: A Latent Moderated Structural Model ● 2:15-3:45pm, Convention Center, 200 Level, Hall D ● Learning Sciences-SIG poster session ● In this study, goal setting theory provided a basis for testing a latent moderated structure (LMS) model to examine science achievement differences in 200 high school students in the Northeastern United States. Specifically, the LMS model was used to examine the impact of ninth grade students' educational goals in STEM on the relationship between STEM self-efficacy and science academic achievement. Presenters: Yueming Jia (Education Development Center, Inc.), Youn Joo Oh (Education Development Center, Inc.)

Extending Learning in the CryptoClub with Student-Generated Online Tutorials ● 12:25-1:55pm, Convention Center, 100 Level, 121C ● Invited Session: Changing the Game: Research Innovations and Interdisciplinary Development of Technologies – Poster session ● This is a structured poster session, with discussant. Janet Beissinger's presentation features the CryptoClub afterschool project, which engages middle-grade students in using mathematics to make and break secret codes. The CryptoClub features web-based computer games and student-created online tutorials, made using technology such as iPads and screen-capture software, in which students explain their solutions to mathematics and cryptography problems. Presenter: Janet Beissinger (University of Illinois at Chicago)

A New STEM Education Model for a New Era: Integrating Social Justice, Urban Ecology, and Career Development ● 8:15-9:45am, Convention Center, 100 Level, 121C ● Division C - Learning and Instruction / Section 1d: Science ● This session discusses the impact of integrating social justice with STEM skill and career development in an out-of-school program for low-income, ethnic minority youth. The papers report on outcomes of a National Science Foundation ITEST-funded project that engaged students from an urban center in using STEM skills to address community problems. Researchers found that integrating these strands supported the development of students' self-efficacy, career exploration regarding STEM, community critical consciousness and the potential of STEM to provide a secure base from which students could explore STEM careers. Session Organizer: Dennis J DeBay (Boston College) Chair: Michael Barnett (Boston College) Discussant: Caroline E. Parker (Education Development Center, Inc.)

Sharing Place: The Virtual Watershed ● 2:15-3:45pm, Convention Center, Terrace Level, Terrace IV ● Part of PCs in the Himalayas and iPads on the Reservation: Impact of Technology on Learning Within Cultures - Roundtable Session ● Students from the two communities engage in study and reflection about the impact of water health, monitoring, restoration efforts, and historical and future land-water policy that impact their communities, individually and collectively. The research findings from this project will assist educators and teachers of American Indian students to more effectively incorporate interdisciplinary STEM learning activities into the curriculum and engage in projects of importance to the community. Presenter: Anne Kern (University of Idaho)

For more information about these and other sessions, visit http://www.aera.net.