



## ***LASER Focused: A Model for Teaching Inquiry-Based Science to English Learners*** **2017-2018 District Report: Aurora Public Schools**

*Research indicates that inquiry-based instruction is particularly effective with certain student populations, including English Learners (ELs). The Center for Research in Educational Policy (CREP) at the University of Memphis (CREP) has partnered with the Smithsonian Science Education Center (SSEC) to develop, implement, and evaluate **LASER Focused: An EL-specific component to SSEC's Leadership and Assistance for Science Education Reform (LASER)** model for inquiry science instruction. The goal of this program is to improve achievement for EL students and provide teachers with new resources for supporting ELs through hands-on science instruction.*

### Intervention Activities:

- Two 2.5-day summer PD sessions for STC Unit implementation and EL support (2017 and 2018)
- One half-day of Condensed PD (Fall 2017)
- Two free Family Nights at the Denver Museum of Nature & Science
- Support for implementation of one STC Unit in each science class

### Evaluation Activities:

- Two PD evaluation surveys
- Baseline vs. 2018 administrator and teacher surveys
- 45 classroom observations
- Attendance at DMNS Family Nights
- 39 STC Unit Logs submitted by teachers
- Baseline vs. 2018 analysis of student achievement

### **2017-2018 Results:**

- For the **3rd grade cohort**, the **treatment group demonstrated a larger reduction in the EL/non-EL achievement gap in mathematics** compared to controls
- For the **6th grade cohort**, the **treatment group had a larger reduction in the EL/Non-EL gap in reading/language arts**
- Based on Year 2 outcomes, *LASER Focused* has had the clearest impact on the **3rd grade treatment group in mathematics** and the **6<sup>th</sup> grade treatment group in reading/language arts**
- **HIGHLY POSITIVE** teacher perceptions of 2017 and 2018 PD
- **INCREASED** administrator and teacher perceptions of support for inquiry science instruction and ELs vs. baseline
- **MODERATE to LOW** reliance on various components of the STC Units by teachers implementing in AY 2017-18
- **VARYING** implementation of EL support pedagogies in the classroom

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