Too few students are learning the science they need to make sense of our complex, 21st-century world.

Professional development on high-leverage teaching strategies through video-based lesson analysis can transform teaching and student learning.

**INSERVICE TEACHERS**

Can the STeLLA approach effectively enhance teacher knowledge and practice and improve student outcomes?

**PRESERVICE TEACHERS**

Can the STeLLA approach be effective as part of an elementary teacher preparation program?

**STeLLA 1 (2003-2008)**
Original program in California showed the STeLLA approach can advance teachers' science knowledge and instruction in a way that impacts student learning. Promising results inspired deeper investigation.

**STeLLA CO (2009-2015)**
Rigorous experimental study of a program that demonstrated significant improvements in science learning and outcomes for Colorado Front Range teachers and students in STeLLA classrooms. Results inspired deeper investigation.

STeLLA 1 (2003-2008) was successful in Colorado Front Range classrooms. Results provided the strongest possible evidence for STeLLA's effectiveness.

**Can STeLLA be effective as a district-wide program?**

**Can STeLLA be effective for secondary teachers and students?**

**Can STeLLA be effective through an exclusively online intervention?**

**Can STeLLA effectively prepare future secondary science teachers?**

**VISTA (2004-2012)**
Online program designed to prepare a small national sample of new teachers during their university methods courses. Promising results inspired deeper investigation.

**VISTA Plus (2012-present)**
Broader and more interactive educator preparation program showed successful science learning outcomes for new teachers and ultimately their students during the student teaching year.

**STeLLA Online (2018-present)**
Full-onlne version of STeLLA CO program will be developed, tested, and studied to better understand if it can produce similar teacher and student impacts as the original face-to-face intervention.

**RESPeCT (2013-present)**
A program that reaches all K-6 teachers in an urban district by preparing teacher leaders to facilitate STeLLA with their colleagues.

**Minnesota STeLLA (2015-present)**
STEM-focused STeLLA program delivered over a shorter duration to a diverse population of K-12 science students across Minnesota.

**STeLLA High School (2015-present)**
Study of a district-wide STeLLA program designed specifically for high school biology teachers across Louisville, Kentucky.

**EMAT (2011-2017)**
Free online course developed to help high school science teachers frame complex energy concepts in a relevant way for students, while also deepening teachers' own knowledge of content and teaching practice.

**STeLLA Collaborative (2017-present)**
Collaborative program with university science and education faculty and local science teachers to prepare future secondary science teachers across Colorado.