



Inquiry-Based Science Narrows the Learning Gap for At-Risk Students

English language learners (ELL), students with individualized education programs (IEP), and economically disadvantaged students (free/reduced lunch, or FRL) from LASER elementary and middle schools outperformed students in comparison schools in PASS assessments.



5-Year LASER* i3 Research Study

- Rural North Carolina
- Northern New Mexico
- Houston Independent School District

* The Leadership and Assistance for Science Education Reform model developed by the Smithsonian Science Education Center



Inquiry Based

A student-centered method where students ask questions, solve problems, and design solutions and the teacher facilitates learning

- Science
- Reading
- Math
- Engineering



PASS performance tasks:

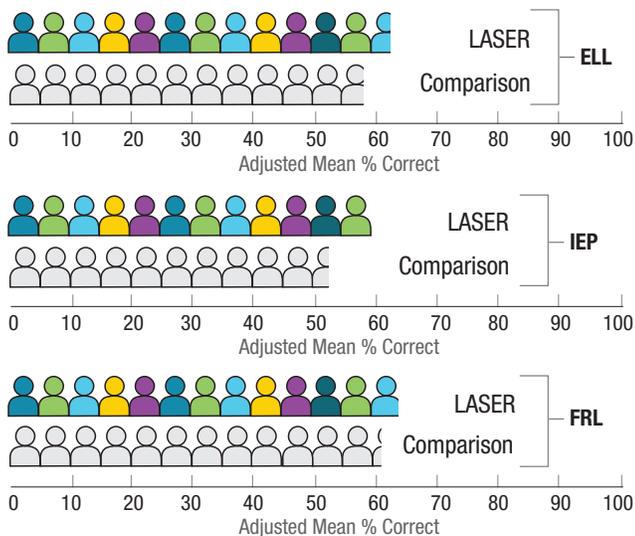
applied learning to hands-on tasks, just as professional scientists apply their expertise to conduct scientific investigations and solve complex problems



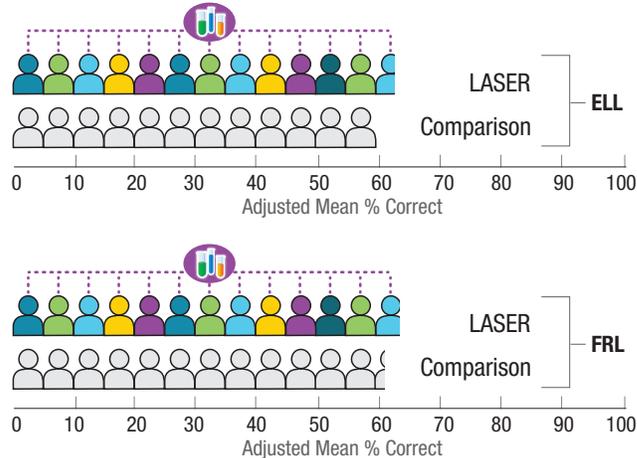
PASS open-ended:

communicated scientific information, inquired, reasoned scientifically, and used science to express positions in societal issues

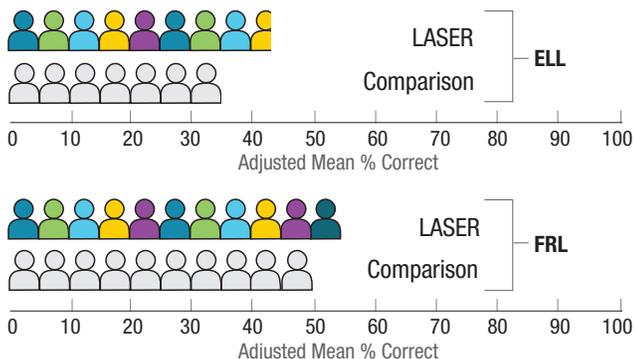
Elementary School PASS Performance Task



Elementary School PASS Open-Ended



Middle School PASS Performance Task



Get the Details

Download the LASER i3 Executive Summary:

www.carolina.com/stc/laser

Learn more about Smithsonian science curriculum programs:

www.carolina.com/stc

Get started with the Smithsonian Science Education Center's LASER program: www.scienceeducation.si.edu

Source: Smithsonian Science Education Center. (2015). The LASER Model: A Systemic and Sustainable Approach for Achieving High Standards in Science Education. Executive Summary. Washington, DC: Smithsonian Institution.