Partners in Innovation... Integrating ELD and Science

Funders:
USDOE Investing in Innovation (i3) Grant
2010 - 2015
Sonoma Valley Education Foundation
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Research and Evaluation Team:
Inverness Research Inc.
Center for Research, Evaluation, and Assessment (LHS)
“Let’s give them science to talk about!”

Institute for Inquiry
science teaching & learning
connect ELD expertise

SVUSD
teaching & learning in K-5 classrooms

Integration of ELD & Science
professional development approach
nurture English language development (ELD) and science achievement

create new knowledge
Goals & Questions

Effective integration of Science & ELD: learning & teaching

ELD Pedagogy

Hands-on Inquiry-based Science Pedagogy

what does it look like in classrooms

how to create science learning that is supportive of ELD

why integrate science & ELD

Productive strategies: classroom discourse & science notebooks

Cultural dimensions of ELD

Classroom practice in Integrated Science & ELD
Museum as laboratory for learning & teaching

Where the right answer is a question ...
National Center for K-8 Science Education
Leadership Development

Professional Development Workshops
  Fundamentals of Inquiry
  Assessing for Learning
  Classroom Strategies for Teaching Inquiry

Impact (1995-2010)
  5000 lead teachers, district professional developers, university faculty, museum educators
  160 projects, 600 districts, 42 states

On-line Professional Development Curriculum
Transformative

Translatable
Sonoma Valley Unified School District

60% ELs
5 elementary schools
80 K - 5 teachers
paths of innovation
Program Design

Leadership Opportunities
Co-present PD - Host classroom visits - Review & Refine model curriculum units

Workshops
- Immersion into ELD and science integration
- Address cultural dimensions of ELD

Study Groups
- Reflection on classroom practice
- Examine students’ work

Classroom Practice
- Teach model curriculum units
Pedagogical Decision Making

Practical view

L2 Acquisition view

Sociocultural view

Science & Literacy view

Teacher
model curriculum units

**Exploration**  
**Investigation**  
**Communication & Interpretation**

classroom practices

**Classroom Discourse:** Science Talks  
**Written Communication:** Science Notebooks
Model for Partnerships

**Museum**
- "laboratory-oriented" culture
- professional development

**Schools/Districts**
- openness to exploration

**Integration of ELD & Science**
- create new knowledge

**Students are:**
- conversing (with purpose)
- exploring (with purpose)
- observing and recording

**Images:**
- Students engaging in hands-on science activities.
- Diagrams illustrating scientific concepts.
- Group photo of educators and students.