

Lessons from a Train-the-Trainer Professional Development Program

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STEP is a modified train-the-trainer professional development program by the Lunar and Planetary Institute; there are a variety of lessons learned to date.

About STEP

LPI provided 6-8th grade science specialists and lead teachers in the Houston region with in-depth Earth and Space Science content, activities, and pedagogy over 15 days each, aligned with Texas ESS standards. STEP leaders are assisting participants in presenting workshops to other teachers. Scientist mentors assist with participants' efforts.

STEP's goals are to improve middle school instruction in ESS; and to create and test an innovative model for Train-the-Trainer. From late 2012 through 2014, STEP participants conducted 35 workshops for approximately 1,630 science teachers in Texas.

External evaluation is being conducted by Harris County Department of Education's Research and Evaluation Institute, and shows an increase after one year in STEP participants' knowledge (cohort 1 showed a 10% increase; cohort 2 showed a 20% increase), confidence in preparing other teachers to teach Earth and Space Science showed a 41% increase (cohort 1) and a 44% increase (cohort 2); and confidence in having the skill level to prepare other teachers showed a 29% increase (cohort 1) and a 47% increase (cohort 2).



Main findings to date

Leaders in science education may not be confident in presenting ESS professional development.

Many STEP participants were uncomfortable with leading workshops initially, but through STEP professional development and particularly through opportunities to present jointly with others, their confidence increased.

Arranging for school or district content-specific professional development can be difficult.

Most STEP participants are limited at the school and district level in their ability to conduct professional development.

School and district professional development sessions are usually short.

Most of the STEP workshops offered at districts were 1-3 hours, some with multiple topics addressed within that period. Only one of the district workshops held a full day devoted to a single topic.

Educators are unsure how to best work with scientists.

Participants were unsure how to best work with scientist mentors, despite multiple opportunities to interact and plan with scientist mentors.

Educators value in-person meetings over short teleconferences.

Participants found it very difficult to set aside time for short after-school and evening teleconferences; more participants were able to attend additional meeting days.

This poster's full abstract is at

www.hou.usra.edu/meetings/lpsc2015/pdf/1940.pdf

For more details about STEP, go to

www.lpi.usra.edu/education/step2012

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