Program-Title Middle School Science Education Leadership

STEM Inventory

Entry# 325

Org-Type Non-Profit-based

Lead San Diego Science Aliance PoC Don Whisman

PoC-Phone 858.292.3854 PoC-Email dwhisman@sdcoe.net

Address 6401 Linda Vista Road

URL www.sdsa.org
Service-Region San Diego County

Type Professional Development for Teachers | Resources

Subjects General Science | Biology | Physics | Earth Science | Environmental Science | Engineering | Robotics | Technology

Level Middle School (5-8th grade)

Other-Objectives The goal of MSSELI is to identify lead science teachers from San Diego City and County middle schools. Once identified, these teachers

Demographics

participate in an intensive summer and academic year professional development program focused on science content, leadership

strategies, and collaboration with area public and private scientific institutions.

Content the work of MSSELI is organized around building middle school science teacher capacity in 1) Analyzing Instructional Materials, 2)

Elements of Effective Instruction, 3) Improving Student Achievement, and 4) Curriculum Leadership. These four elements provide the foundation for the organization of professional learning that takes place during the 40-hour "Summer Leadership Academy" and the "Collaborative Lesson Studies" that take place during the academic year. Planning and implementation of the program is conducted by science educators, administrators, and instructional leaders from the San Diego County Office of Education, San Diego Unified School District, and other school districts in the region. This team has changed and grown over the life of the program to include individuals

with expertise in instructional technologies, science content, and peer coaching from within the ranks of MSSELI.

Outcomes MSSELI fellows are deployed to middle schools in the region to lead or participate in Collaborative Lesson Studies (CLS). This process

involves collaborative planning and delivering a science lesson with specific intended student outcomes. Focusing on intended student outcomes in a three-day CLS engages teachers in the most important professional dialog; How can we be sure that students are understanding and applying the science content? Research shows that teacher participation in lesson studies results in higher student gains in content knowledge in complex coursework. In the case of middle school science classrooms it is essential to assure that students are "getting it" and that teachers are identifying mechanisms to effectively engage all learners. Through the "deprivatization" of practice teacher collaborators discuss deeply the methods they are using to convey content knowledge and refine it for more effective instruction. MSSELI participants report that the Collaborative Lesson Study experience has been transformational for their

instructional practice.

Started 2004 Funded-Through 2010

Length Ongoing Cost \$150K @ year

Primary-Funding Foundation Primary-\$

Materials

Other-Funding

Served-per-Year

How-Assessed External evaluation

Best-Practice-Why MSSELI has been recognized in "What's Working: A Guide to Effective Math and Science Education in San Diego County" for building

 $teacher\ capacity.\ Teachers\ report\ that\ the\ Lesson\ Study\ experience\ is\ transformational\ in\ their\ teaching\ practice$

Promising-Practice

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Other-Orgs San Diego County Office of Education