

Synthesis Report

NSF Southwest Regional Conference – 2001
Regional Advisory Team meeting
Austin, Texas
September 26-27, 2001

Overview. At the request of the National Science Foundation (NSF), the Southwest Educational Development Laboratory (SEDL) submitted a proposal to NSF on September 21, 2001, to plan and host a conference of 19 NSF recipients of systemic initiative awards in the Southwest region. A major component of the proposed planning process was to bring together a Regional Advisory Team of 10 regional project staff to design the proposed conference's activities, processes, and outcomes in more detail. The planning meeting was supported and facilitated by SEDL's Eisenhower Southwest Consortium for the Improvement of Mathematics and Science Teaching. This synthesis report captures the major discussion points and agreements of the Regional Advisory Team and outlines next steps.

Purpose of the planning meeting. The Regional Advisory Team met with SEDL staff September 26-27 in Austin, Texas to: 1) agree on the purpose and outcomes for the regional conference; 2) determine processes for reaching conference outcomes; and 3) to identify potential participants, facilitators, and presenters. An agenda and list of participants are attached.

Purpose and Outcomes

Discussion points

Discussion immediately focused on the overall purpose and outcomes of the proposed conference. It was quickly agreed that the most important problem facing all reform initiatives is how to significantly improve student achievement, and the energy of the proposed conference should focus on the overarching question: How do we really improve student achievement in mathematics and science? To answer this question we must learn how to use student data more effectively to analyze our strategies and approaches.

The planners were clear about what the conference should not provide: a series of presentations about project goals and processes. Instead they recommended that the conference focus on "what works for whom and why" and "what matters and how do you measure it." Several participants stated the conference could provide a model for replicated conferences hosted by their projects. Information and interactive discussions were critical components for these planners.

Discussion also explored the difference between focusing on "teacher quality" and "quality teaching." The advisory team indicated current thinking lacks a critical emphasis on understanding how quality teaching works in systemic ways. We need to know much more about the practice and contexts of effective, successful mathematics and science teaching. Tools to understand and influence teachers' attitudes and to assist them in making more effective instructional decisions were explicitly identified as in short supply. There was widespread agreement that the current focus on improving test scores was insufficient and short sighted; the student performance that really matters is improved student understanding implied by rising test scores. Measures of understanding are largely limited to procedural assessments, leading to much confusion among educators

between the measure and the measured. More time must be spent considering the successful practices that are driving student achievement and looking into measuring and broadening their use. The planning group defined these elements as “attributes” of quality teaching.

A final significant stream of the conversation centered on the need to engage the total educational system PK-16. Curriculum alignment and teacher professional development were two areas identified where better connections between higher education and PK-12 programs need to be made.

Major decisions and agreements

The advisory team defined three conference outcomes:

- Identify and explore attributes of quality teaching and learning that result in significant high performance in mathematics and science for all students.
- Share tools and processes to measure the attributes of quality teaching and learning and to identify attributes that don't have measures. (We want participants to be able to find out both what attributes are present in schools and districts and what attributes are missing.)
- Determine next steps (for teams and projects) for using appropriate research tools to define and measure the teaching and learning of PK-16 mathematics and science.

SEDL's proposal suggested two strands for the meeting based on the work of the Glenn Commission: Teacher quality and teacher supply. These were reconsidered and three topical themes emerged from a brainstorming session on possible topics to consider. Each of these is briefly described below. For the purposes of discussing each theme, several guiding questions were posed: What matters? How do you measure what matters? and What next?

- Systemic alignment – Looking beyond the current wave of efforts to align K-12 curriculum, this theme looks at strategies for linking pedagogy, assessment, and curricula K-16, as well as the human and physical resources to accomplish such an alignment. Questions focused on how to identify indicators of alignment and how K-12 should interface with higher education programs. Also raised were issues about the leadership requirements and skills to develop and support alignments.
- Professional learning communities – This theme focuses on developing the capacity of school communities to support continuous improvement. Needs for effective learning communities included: instructional leadership K-16; partnerships between higher education and school/communities; supportive school culture, including strong professional development component with coaching/mentoring strategies; and a strong research base from which to work.
- Emphasis on student learning – This theme broadens the construct of student assessment beyond the current narrow focus on state minimal competency and standardized measures. It is critical that schools develop a system of multiple measures that informs and improves the teaching/learning process while simultaneously working to meet growing state accountability pressures.

Processes for reaching outcomes

Discussion points

The Regional Advisory Team indicated that, to be effective, the conference should make a difference in the way participants work in their own projects. Most of the discussion centered on how to make this happen. Two suggestions were proposed. First,

participants should be asked to do some advance preparation before they come to the conference and to do some follow up after the conference. The web site proposed by SEDL, supplying pre-conference information and registration and post-conference updates, will help facilitate this process. The second suggestion was that teams should be encouraged to take time at the conference itself to talk about how their various sessions might impact the project work.

Another major discussion point raised the possibility that the conference might result in cross-project collaboration on common issues and problems, particularly in the area of research. Participants in the planning meeting felt significant work could be accomplished in this area, particularly in linking research findings, questions, and data collection.

In the final session of the planning meeting, the group broke into three strands to consider the themes described earlier. From this short but productive discussion, a suggested model for investigating the three themes emerged. Inquiry into each of the themes involves:

- Step 1: Determine what matters.
- Step 2: Analyze existing tools and strategies to determine if they in fact measure what matters.
- Step 3: Share with experts existing and potential strategies for focusing on what matters.
- Step 4: Consider how projects can engage or develop such strategies.

A small matrix was proposed to capture this thinking;

	What matters?	How do we/can we measure it?	What can we do to make it happen?
Systemic Alignment			
Professional Learning Communities			
Focus on Student Learning			

Major decisions and agreements

The Regional advisory team agreed to build in time for:

- advance work and some follow-up for teams
- teams to meet during the conference
- role-alike discussions during the conference
- investigating regional strategies and collaborative research agendas

Identification of participants, facilitators, and presenters

Discussion points

Given the changes in airline travel and the need for more time for travel, several critical participants needed to leave the meeting early. We spent time early in the meeting discussing team composition, and came to agreements on who should participate. We had no time to identify extensive lists of speakers, panelists, and/or facilitators, with one

small exception. The learning communities group identified some potential facilitators and their tasks. The identification of topics had to come before the identification of keynote speakers and panelists, so only a very few names were mentioned.

Major decisions and agreements

The advisory team felt that teams and teaming strategies would be important for the success of the conference. The need to build a community of understanding around the ideas of the conference led to the identification of possible roles to help guide the selection of the representative teams. The advisory team agreed to roles for up to six team members at the conference:

- Project director or other important project administrator
- Project data collector (evaluator or researcher)
- Higher education partner either from natural sciences or education
- Instructional “implementer” (project field operative working directly with teachers)
- Instructional leader (teacher, principal, curriculum specialist, or superintendent)
- Policymaker

Next steps

The immediate next steps described below all require SEDL to secure funds to proceed with the planning of this conference. The items below indicate the direction and emphasis that SEDL will take once funding is available.

- Sign a contract with hotel to secure space.
- Begin the development of the web site on line registration.
- Invite regional programs to identify teams and register for conference.
- Design specific conference activities for each of the three themes.
- Request feed back on agenda from Regional Advisory Team.
- Design pre-conference suggested activities for teams.
- Identify and negotiate with panelists, speakers, and facilitators.
- Publish agenda on web site and update with changes as they occur.
- Evaluate the conference to determine if goals/objectives were met.

Attendees:

Regional Advisory Team participants:

Carlos Atencio, Northern New Mexico RSI
Joanne Bogart, El Paso Collaborative
Marceline Carr, Little Rock USP
David Garner, Oklahoma City USP
Alfred L. Hall, Memphis USP
Judy Kelly, Texas RSI
Roni Rentfro, Brownsville USP
Sally Valenzuela, San Antonio USI
Stephanie Williamson, LaSIP
Sam Zagrossi, Texas SSI

NSF representative: Julio E. Lopez-Ferrao

SEDL staff member participants:

Stephen Marble
Jackie Burniske
Ed Tobia

Leslie Blair
Erin McCann
Jeannine Turner