

Evaluating Collaboration between Science, Technology, Engineering and Mathematics (STEM) Programs in the **National Girls Collaborative Project**

WEPAN Conference
St. Louis, MO
June 9, 2008

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Overview

- Background Information
- Defining Collaboration
- Measuring Collaboration
 - Data Collection Tools
 - Methodology
 - Analysis
- Project Example
- Evaluating Collaboration - Checklist



Defining Collaboration

- “Mutual relationships and goals; a jointly developed structure and shared responsibility; mutual authority and accountability for success; and sharing of resources and rewards” (Mattesich & Monsey, 1992, p. 7).
- “The process of achieving a goal that could not be attained efficiently by an individual or organization acting alone” (Wang, Haertel, and Walberg, 1997, p.7).



Benefits of Collaboration

- Effective use of resources and funds
- Integration and alignment
- Synergy
- Sharing promising practices



Benefits of Evaluating Collaboration


- Relationships influence program outcomes
- Increase likelihood of collaboration benefits
- Help partners overcome challenges to collaborating
- Increase partners' awareness and reflection
- Effects of collaborating
- Sustainability of relationship
- Others?

“More than 200 federal education programs exist to promote STEM careers, but evaluation and coordination are lacking.”



EVALUATION

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All teaching, learning and collaboration

Challenges



To collaboration

- Resources
- Commitment
- Turf
- Conflict
- Respect
- Diversity
- Communication

To measuring collaboration

- Defining collaboration
- Multiple perspectives
- Evolving relationships
- Recognizing collaboration indicators
- Identifying data sources
- Gathering evidence
- Analyzing data



Strategies for Evaluating Collaboration

- Defining collaboration
- Goals and indicators
- Involving multiple stakeholders
- Using pre- post- and ongoing measures
- Multiple data sources
- Others?



Measuring Collaboration

- Needs assessment
- Goals and indicators
- Partner roles
- Communication and decision-making process
- Benefits and challenges
- Outcomes and outputs
- Sustainability



Methods

- Self reports
 - Surveys
 - Interviews
 - Group interviews
- External sources
- Observations of meetings
- Document review
- Project outcomes
- Other examples?



National Girls Collaborative Project

- Framework
- Needs and Resources
- Incentives



Measuring Collaboration in the NGCP

Annual Survey

- Extent to which NGCP impacted levels of collaboration
- Rubric showing level of collaboration with different types of groups, from coordination to collaboration

Mini-grant Reports

- Most effective and least effective aspects of collaboration
- Division of labor and shared tasks



Best Practices in Successful Collaborations

PREPARE

- Reflect on past collaborations and the characteristics of successful or ineffective collaborations.
- Create a quick summary of your research findings/program products and services you can easily share when you first meet potential collaborators.
- Identify your strengths and challenges.
- Identify the resources you have to offer.
- Identify any research needs you have.

LOOK

- Find the “home” of your audience who can benefit from your research findings/program products and services.
- Identify assistance or guides that can help you.

PLAN

- Be flexible and patient.
- Create a collaboration agreement.
- Debrief the collaboration.

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Collaboration Rubric

Networking (1)

- *Aware of organization*
- *Loosely defined roles*
- *Little communication*
- *All decisions are made independently*

Cooperation (2)

- *Provide information to each other*
- *Somewhat defined roles*
- *Formal communication*
- *All decisions are made independently*

Coordination (3)

- *Share information*
- *Share resources*
- *Defined roles*
- *Frequent communication*
- *Some shared decision making*

Coalition (4)

- *Share ideas*
- *Share resources*
- *Frequent and prioritized communication*
- *All members have a vote in decision making*

Collaboration (5)

- *Members belong to one system*
- *Frequent communication characterized by mutual trust*
- *Consensus is reached on all decisions*



Collaboration Rubric Results

Initial levels

- California (CA) = 1.92
- Massachusetts (MA) = 2.64
- Wisconsin (WI) = 1.85

Highest levels

- K-12 schools
- 4-year colleges or universities

Lowest levels

- Media
- Federal government organizations
- organizations serving rural students



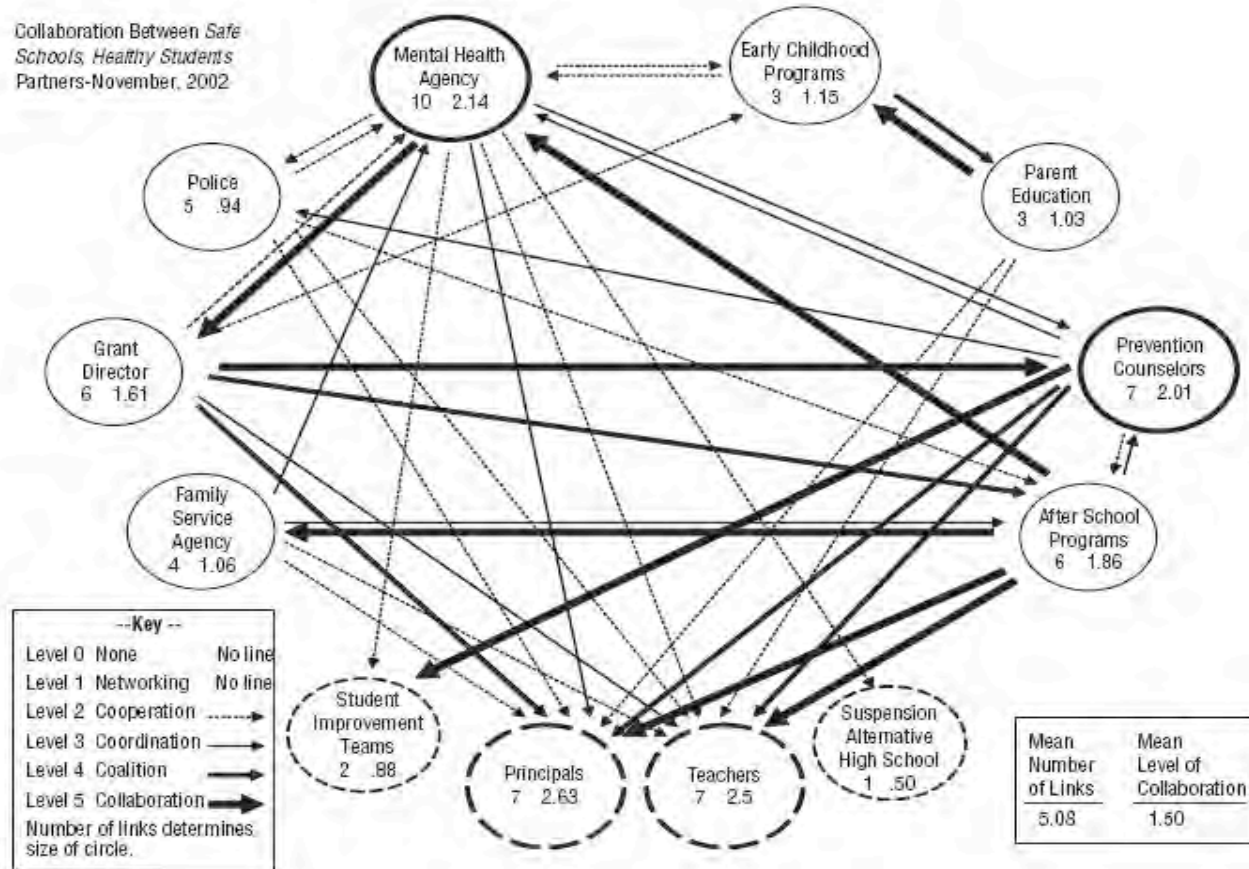
Collaboration Rubric Analysis

- Increase in collaboration with all organization types, except a slight decrease in the amount of collaboration with K-12 counselors
- Increases significant in collaboration with STEM professionals and higher education STEM programs
- Mean levels of collaboration across all individual organizations surveyed increased significantly from mean = 1.84 to mean = 2.81



Analyzing Collaboration Data

Collaboration Between Safe Schools, Healthy Students Partners-November, 2002



Evaluating Collaboration – *A Simple Checklist*

- To use to reflect on collaboration evaluation not overall collaboration – not a readiness to collaborate
- Hands on experience
- Questions and comments



Discussion Questions

- What are other ways to evaluate collaboration data, e.g., speed networking outcomes?
- What are some effective strategies for presenting the data to stakeholders?
- How does the evaluation of collaboration impact relationships and partnerships?



Questions?

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