

## Inquiry in Motion: Teaching Strategies for Accelerating Student Growth

Formative Assessment Conference  
Nov. 19 and 20, 2009  
Jeff C. Marshall and Michael P. Dahlin

## Tension in Education

- Are we to develop critical thinking or breadth of understanding?
  - The answer has huge implications for the strategies that we use to instruct
  - How do exemplary teachers answer the question?

## Overview

- Inquiry in Motion Overview
- Data Collection/Analysis
- Findings
- Lessons Learned
- Next Steps

## Inquiry in Motion Overview

- Inquiry in Motion (IIM) seeks to improve the motivation, potential, and achievement of students and teachers through rigorous and authentic inquiry-based learning experiences.

## PD Interventions

- PDI-1: (goal: improve quality of inquiry-based instruction)
  - 2 week experiential summer program
  - 4 follow-up sessions
  - monthly follow-up in individual classrooms
- PDI-2: (goal: create a sustainable support structure in participating schools)
  - 3 weeks of summer involvement
  - monthly follow-up meetings in schools

## Data

- Case studies of teacher practice
- Electronic Quality of Inquiry Protocol ([EQUIP](#))
- MAP scores in math content, science content, and science process

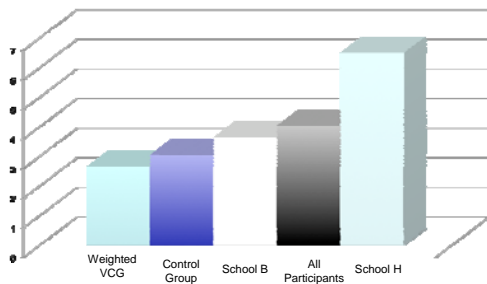
## Data Analysis

- ANOVA and correlational for EQUIP
- Quasi-Experimental Design for MAP score analysis

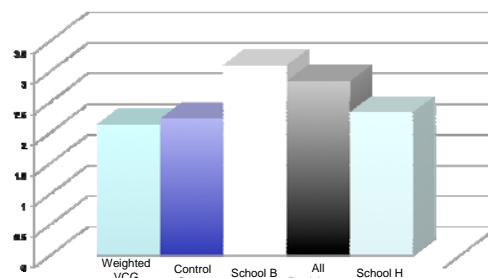
## Findings

- High correlation between teacher performance (EQUIP scores) and student performance on MAP science content and science process (math not yet analyzed)
- Scores of participants in science content and science process exceed district and VCG performances.

## 08-09 Science Content RIT Gain for MAP



## MAP Science Process Gains



## Lessons Learned

- Target schools not entire districts
- Frequent, personalized follow-up is critical
- Create and implement a sustainability plan
- Involve administrators

## Revisiting the Initial Question

- Are we to develop critical thinking or breadth of understanding?
  - critical thinking demands understanding but understanding doesn't demand critical thinking.
  - students who can think critically can excel on mandated tests that emphasize understanding AND demonstrate proficiency in problem-solving, deeper thinking, and innovation.

For Further Info Contact:

[www.clemson.edu/iim](http://www.clemson.edu/iim)

Jeff Marshall: [marsha9@clemson.edu](mailto:marsha9@clemson.edu)

Michael Dahlin: [michael.dahin@NWEA.org](mailto:michael.dahin@NWEA.org)

