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FOUNDED BY MARILYN BURNS

HOW DOES EQUITY AFFECT EXPECTATIONS FOR ALL?

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NCSM Conference---Denver, CO

mathsolutions.com/presentations

Equity

A clear definition of equity begins, first, with its separation from the notion of equality. Equity means fairness; equality means sameness.

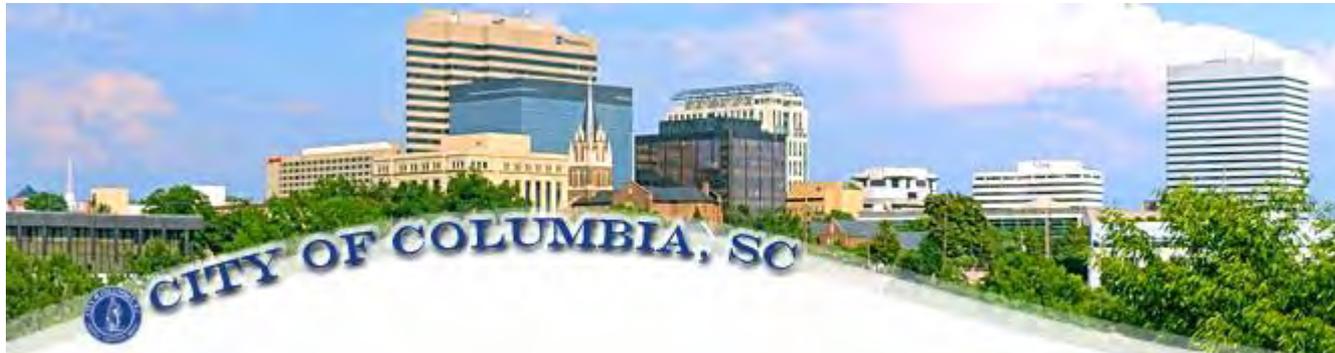
—Nancy Kreinberg

Facts and Figures

Schools	
Total Number of Schools	50
Elementary Schools	28
Middle Schools	9
High Schools	7
Special Schools	3
Charter Schools	3
Student Enrollment	
Total Enrollment*	22,884



Facts and Figures



STUDENT DEMOGRAPHICS

Ethnicity

- Black	74%
- White	18%
- Other	8%

Percentage receiving free/reduced-price lunch	74%
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Challenges

- Student engagement
- Content knowledge
- Lack of rigor
- Prevalence of 'stand and deliver' instruction
- Planning
- Getting everyone involved to understand that the role of the coach is NON-EVALUATIVE.

Richland One

Year 1

- **12** elementary schools
- **28** teachers
- **2** coaches
- Introduce “Talk Moves”

Year 2

- **25** elementary schools
- **89** teachers
- Implement Number Talks and talk moves as core continuum across district
- **4** coaches providing instructional support

Critical Components

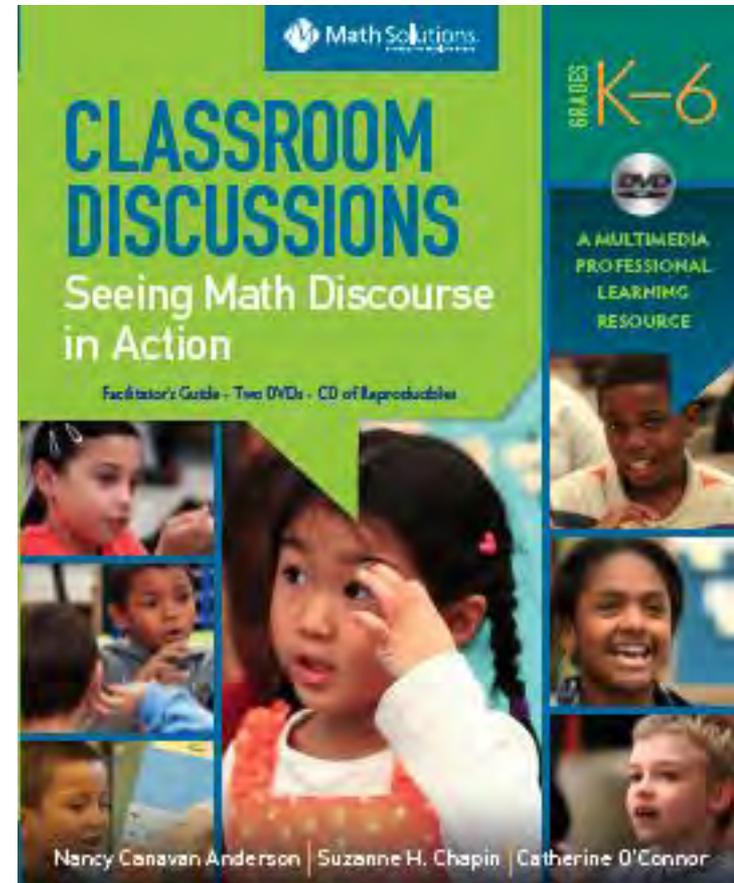
- Ongoing professional development with coaching
- Administrative buy in and understanding
- Communication between, coach, teacher, principal, district
- Continuous reporting and monitoring
- Check in meetings with other departments about goals and needs

Where to start?

Student engagement was the number one concern from every teacher and principal interviewed.

Talk Moves

- Teachers lack images of what sustained classroom discourse looks like.
- Teachers were unsure of how to facilitate discussions.
- Teachers were unsure of what math to discuss.
- Teachers often said they don't have time!
- Teachers were concerned that no one will talk.
- Teachers worried that their students can't do this.



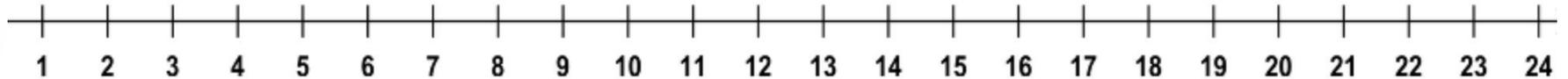
Establishing Norms

- Video Clip Classroom Discussions
- Kdg Turn and Talk

Talk Moves

- Revoicing
 - Repeating
 - Reasoning
 - Adding on
 - Waiting
-
- Classroom Discussions: Using Math Talk to Help Students Learn, 2009

Guess My Number



The secret number is less than _____.

The secret number is greater than _____.

The secret number is between _____ and _____.

Guess My Number



Talk Moves

- Revoicing
 - Repeating
 - Reasoning
 - Adding on
 - Waiting
-
- Classroom Discussions: Using Math Talk to Help Students Learn, 2009

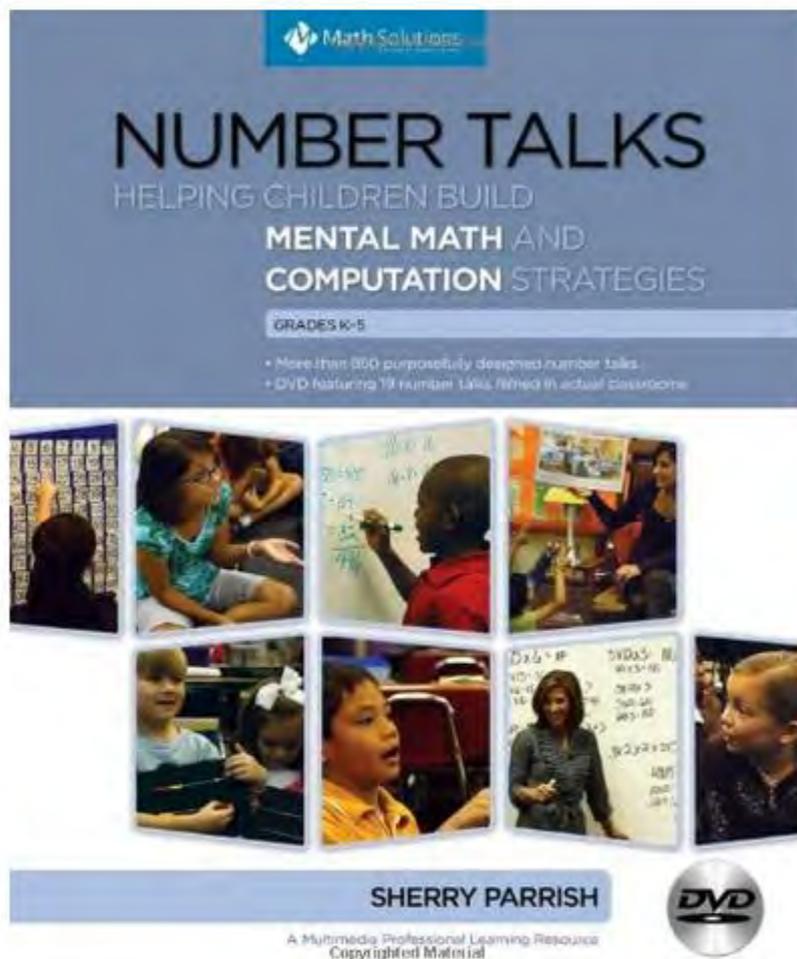
Reluctant Speakers Participate

- Insert video clip from Classroom Discussions 2.1H
Getting all students to participate

This was a new experience for us all. Having conversations about math and relating our ideas to each other has been very powerful. Sometimes students will be sharing their thinking and catch their own mistakes. This builds their confidence as they learn that they are capable mathematicians.

Richland One Teacher

Year Two



Homework

- Reading, Practice and Reflection:
 - What did you learn about your students' mathematical thinking?
 - What insights did you have into their understandings?
 - What tools were available to further your students' thinking?

$$70 - 34 =$$

- Insert Video clip Number Talks 3rd Grade

Number Talks

I have grown as an educator because of Number Talks. I have found that sometimes it is better for me to be quiet and listen to what my students have to say. I am a much better teacher when I question and guide them to the answer instead of simply stating the answer and giving them my strategy to answer it.

Richland One Teacher

Tools for Success

Observation tools

One-on-One Coaching Visit	
Teacher's Name:	Date:
School:	
Grade:	
Question	Notes
Tell me about your students.	
How many students are you teaching each day?	
What outcomes are you striving for with students?	
What would most help your students?	
Are you familiar with the Rigor and Relevance framework?	
What do you like about your implementation of the framework?	
What challenges are you facing implementing more rigor or what questions do you have?	
Are you familiar with the Principles of Learning? If so, which principles are you comfortable implementing?	
Talk about the kinds of professional development you've attended in the past few years.	
How do you learn best?	
How many days of Math Solutions PD have you attended? Rigor Relevance Training?	

Monthly Coaching Action Plans

Coaching Action Plans

Teacher's Name _____ Grade Level _____

Teacher's Email _____ School _____

Teacher's Goal _____

Month	What We Did:	What We Need to Do:
September		
October		
November		
January		
February		
March		
April		

Observation form-Modeling



Model Lesson Observation Form

Lesson Instructed By _____

Name: _____ Date: _____

Lesson designed for Grade _____ Subject _____

Important Academic Language I Heard	How were the students engaged? Initially?
Notes about types and levels of questions asked by the instructor:	Persistently during the lesson? At the conclusion of the lesson?
The instructor checked for student understanding by:	Examples of Differentiation

Questions I have about instruction:

Ideas I have about instruction:

Observation form

Coaching Observation Form

teacher _____ date _____ school _____

Students engaged in rigorous tasks	
Students engaged in relevant tasks	
Small group instruction based on data	
Higher level purposeful essential questioning	
Student engagement	
Cooperative group learning (small group, partner work....)	
Tools/manipulatives purposefully used	
Anchor charts/ word walls	
Connections (prior knowledge or other subjects)	
Accountable Talk	

Questions to Ask During Debriefing:

Establish expectations for collaborative classroom discussions for the purpose of developing thinking, reasoning, and sense-making as called for in the Common

		1 = Beginning	2 = Developing	3 = Meeting	4 = Surpassing
Talk Moves <ul style="list-style-type: none"> • Revoicing • Repeating • Reasoning • Adding On • Wait Time 	Teacher	Rarely uses Talk Moves to facilitate students' discussions, thinking, and participation	Shows some use of Talk Moves to facilitate students' discussions, thinking and participation	Uses a variety of Talk Moves to facilitate students' discussions, thinking and participation	Frequently and appropriately uses all of the Talk Moves to facilitate student discussions, thinking and participation
	Student	Few students participate in discussions that illustrate their thinking and reasoning as responses to Talk Moves initiated by the teacher	Some students occasionally participate in discussions that illustrate their thinking and reasoning as responses to Talk Moves initiated by the teacher	Most students consistently participate in discussions that illustrate their thinking and reasoning as responses to Talk Moves initiated by the teacher	All students consistently participate in discussions that illustrate their thinking and reasoning as responses to Talk Moves initiated by the teacher
Partner, small and whole	Teacher	Limited appropriate use of partner, small, and whole groups for classroom tasks and discussions	Occasional appropriate use of partner, small, and whole groups for classroom tasks and discussions	Frequently uses appropriately partner, small, and whole groups for classroom tasks and discussions	Consistently uses appropriately partner, small, and whole groups for classroom tasks and discussions

**Professional Learning for Raising Student Achievement
Focus on Math
Strategy Use Chart**

Collaborative Classroom Discussions	Dates Observed									
Uses Talk Moves—list the ones used Revoicing, Repeating, Reasoning, Adding On, Wait Time										
Uses whole group groupings										
Uses small group groupings										
Solving Problems in More Than One Way	Dates Observed									
Uses rigorous tasks										

All students demonstrate appropriate expectations during partner, small, and whole groups

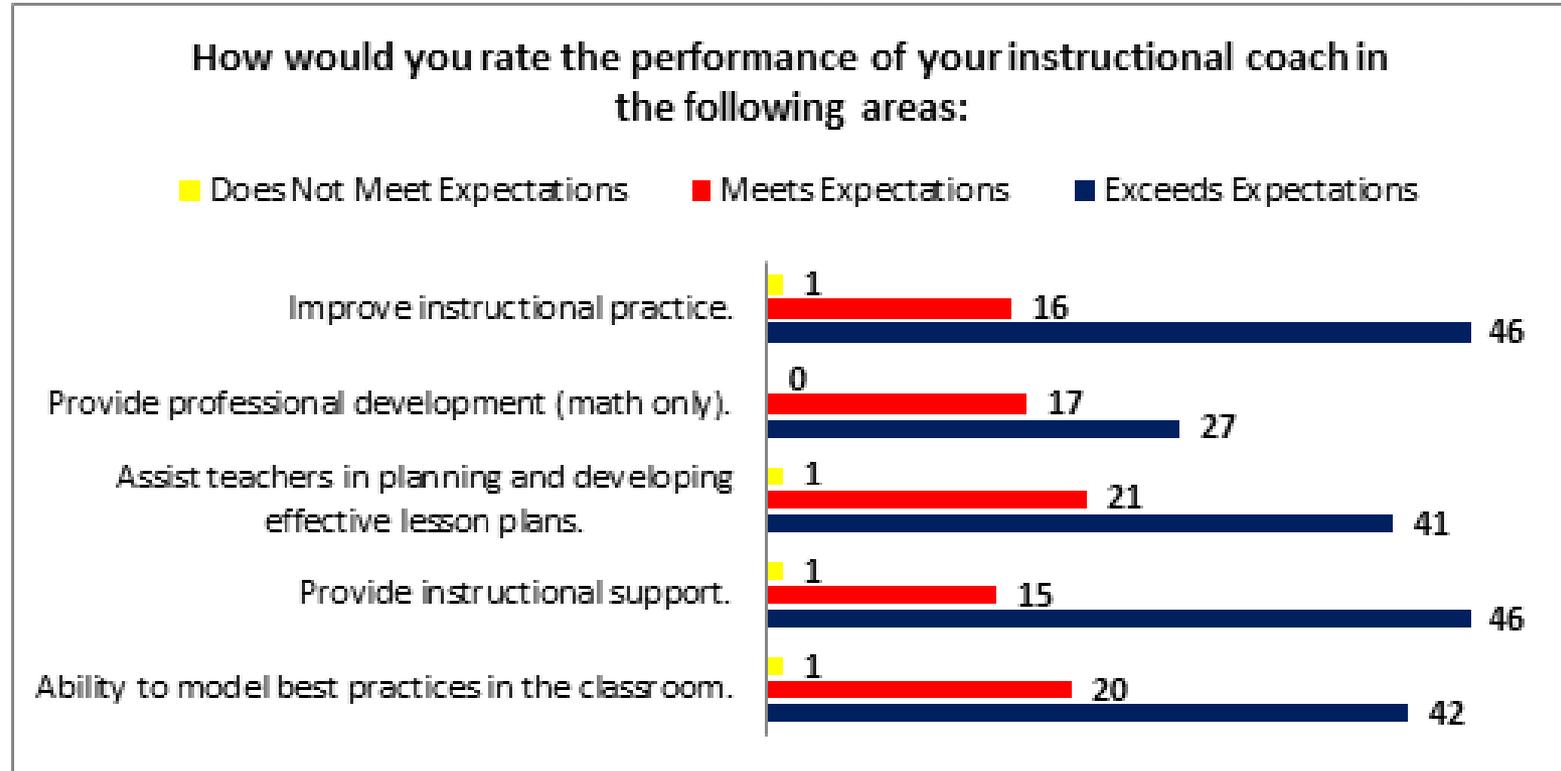
Communication

Mid-Year Report

Richland School District One
End of the Year Report – April 2013

*Building Capacity to Support and Sustain
Rigorous and Relevant Classroom Instruction*

Chart 3: How would you rate the performance of your instructional coach in the following areas:



Visit Summary Form

Consultant T.J. Jemison

Visit Summary

Arden

Ms. _____

11-13-12

10:15 – 11:15

Purpose of Visit:

Third visit. TJ modeled a Number Talk. Met to debrief after.

Successes:

- Ms. _____ continues to implement the Number Talks. She has used the resource very effectively.
- Continues to incorporate many of the strategies from the Number Talks Book.
- She is already seeing an improvement in her student's abilities to solve problems, be more flexible thinkers, and better explain themselves.
- Ms. _____ is teaching all the math at her grade level.

Targets:

- Questioning- using higher level questions.
- Doing a Number Talk daily.
- Using the agree symbol.
- Try to implement random calling.
- Use of Smart Board for doing Number Talks.
- Eliciting strategies from children rather than explicitly showing.

Next Steps/Action:

- Let TJ know if model or observe in January.
- Building in time to reflect on which strategy is the most efficient.
- Creating a culture where all voices are expected to be heard.
- Focusing on accuracy, efficiency, and flexibility.
- Read next section of Number Talks book.

Follow-up visit:

Next visit: Jan 8th, 2013

Professional Portfolio for Math Instruction

- **Teacher's Name**
- Teacher photo
- Grade Level
- School
- Richland One School District
- Columbia, South Carolina
- 2012-2013

Portfolio

Background Information

- **Professional Development attended**
- **How many times were you coached?**

Portfolio Reflection

- **Why did you choose this piece?**

Portfolio

Coaching Reflection

- How has the coaching process impacted your practice of teaching and help you advance in your professional goal(s)?
- How has job embedded coaching helped your students as learners?
- What goals do you have for the immediate future?

Portfolio

Coaching Reflection

- What has been the most valuable part of the coaching process?
- What would you change about this process?

Portfolio

Number Talks Reflection

1. If you had just a minute or two to describe 'Number Talks' to another teacher, how would you complete this sentence? "Number Talks are....."
2. Can you describe anyway that your work with Number Talks has impacted your teaching in other areas?
3. Please describe any specific 'a-has' you experienced when using Number Talks.

Professional Development

- Ongoing support during coaching for mathematical content knowledge
- Additional summer opportunities with in depth course work
- Constant availability of coaches to support planning and lesson ideas

Next Steps

- Professional Development for all participants
- Extended coaching times—90 minutes per session
- Quarterly group coaching
 - Lesson study through full lesson observation cycle
 - Planning

Critical Components

- Ongoing professional development with coaching
- Administrative buy in and understanding
- Communication between, coach, teacher, principal, district
- Continuous reporting and monitoring
- Check in meetings with other departments about goals and needs

The most valuable part of this learning experience was the ability to have a non-threatening environment to be observed and then get immediate feedback on the observations. Normally observations make me nervous and I feel like I am being looked at under a microscope. During these observation I knew I was being observed to see what I had learned and what was transferring over into the classroom but I did not feel threatened.

On the road to Equity

It has really made me stop and think about how I question students. It has also made me more aware of allowing students to take more ownership in their learning, rather than me just telling them strategies. *It makes their learning more authentic and provides more opportunities for them to have ah-ha moments.*

Richland One Teacher



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Talk Moves

REVOICING

“So you’re saying that ...”

This move not only gives the instructor time to clarify what the student is saying, it also provides opportunity for fellow students to have another opportunity to clarify and make sense of what a student is saying.

REPEATING: ASKING STUDENTS TO RESTATE SOMEONE ELSE’S REASONING

“Can you repeat what (another person) just said in your own words?”

This move is useful instead of the instructor revoicing. Ask one student to repeat or rephrase what another student has said, and then immediately follow up with the first student. ***“Is what so-and-so said what you meant?”***

REASONING: ASKING STUDENTS TO APPLY THEIR OWN REASONING TO SOMEONE ELSE’S REASONING

“Do you agree or disagree and why?”

After a student has made a claim, and the instructor has made sure that everyone else has heard it and has had time to process it, the student can elicit learners’ reasoning about the claim.

ADDING ON: PROMPTING STUDENTS FOR FURTHER PARTICIPATION

“Would someone like to add on?”

This move can be used after the instructor has revoiced what a student has said. This prompting for more input on previous statements will, over time, result in learners who are more willing to weigh in on what the group is considering.

WAITING: USING WAIT TIME

“Take your time ... we’ll wait ...”

Many teachers are familiar with *wait time*—the important finding that after having asked a question, a teacher should wait at least ten seconds for students to think before calling on someone for an answer. Wait time also comes into play after a student has been called on. After an instructor has called on a particular student, that student should be given at least the same amount of time to organize his or her thoughts.