Orientation for Coaches
EMC Coaching Definition

A mathematics coach is an on-site professional developer who enhances teacher quality through collaboration, focusing on research-based, reform-based, and standards-based instructional strategies and mathematics content that includes the why, what, and how of teaching mathematics.
Coaching . . .

- It is a big investment from a teacher to engage in coaching cycle.
  - Time commitment
  - Emotional risk-taking

- Coaching can have an enormous impact on teacher practice.
Coaching Cycle for EMC Project

- The coaching cycle will be completed eight times per year with each of three teachers.

- Four of the eight coaching cycles will focus on Number Sense and Operations.
  - This may look different at different grade levels, ranging from arithmetic to fractions and ratios to proportional reasoning.
Coaching Cycle for EMC Project

There are three distinct parts to each coaching cycle designed to examine mathematics instruction.

- Pre-Lesson Conference (~15 minutes)
- Lesson Observation (entire class period)
- Post-Lesson Conference (~30 minutes)
Pre-Lesson Conference

Purpose: to develop a shared view of the upcoming lesson

- Mathematical content and goal
- Instructional tools and strategies
- Potential challenges for students
- Areas of special focus for coach
- Evidence coach should collect
Pre-Lesson Conference

Encourage the teacher to share/discuss:

- What mathematics should students know and understand as a result of lesson?
- What should you watch for as evidence of student understanding?
- What challenges, questions, or concerns should you focus on?
Pre-Lesson Conference

Make the teacher aware that:

- This is an observation for the teacher’s benefit, **not** an evaluation of any kind.
- It’s all right to deviate from original plan if a “teachable” moment arises.
Pre-Lesson Conference

Logistics

- Allow at least 15 minutes to discuss the upcoming lesson.
- Use e-mail, phone, or a drop-in visit to schedule the pre-lesson conference.
- If possible, schedule all three parts of the cycle (pre-lesson conference, classroom observation, post-lesson conference) as a whole.
Lesson Observation

Your role is to be a data collector.

- Focus on the issue(s) you discussed with the teacher in the pre-lesson conference.
- Document the relevant mathematics content and strategies used to teach it.
- Collect evidence of student learning.
Lesson Observation

Good observation is essential for a worthwhile post-lesson conference.

Take detailed notes using some form of organizer.

- Decide beforehand whether you will share notes with teacher – this will affect what is written.
- Note all relevant aspects of the classroom and instruction that affect the lesson.
Post-Lesson Conference

Purpose:

- Analyze evidence together to interpret what students know and are able to do as a result of the lesson.
- Reflect on teacher moves that uncovered or advanced students’ mathematical understanding.
Post-Lesson Conference

Logistics

- At least 30 minutes will be needed.
- Ideally, meet immediately following the classroom observation. Otherwise, schedule a time close to the observation.
- Face to face interaction is best for this stage.
Coach & Teacher Reflection Instrument (CTRI)

- The CTRI collects information about coaching relationships, mathematics content discussed, and impact of coaching on instruction.

- Coaches and teachers individually complete instrument online in May of each year (2010-2014).
Thank You!

Have we answered your questions about:

- The EMC project?
- The EMC coaching model?
- EMC research tools and expectations?
- How you will benefit from participating?

We look forward to working with you over the next five years!
Contact Us:
James Burroughs, EMC Project Director
Phones: (406) 994-3911 or (877)572-5032

Email: emc@math.montana.edu

Web: www.math.montana.edu/~emc/