Mathematics Coaching: Moving from Master Teacher to Mathematics Leader

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Professional Development for Coaches

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 include the why, what, and how of teaching mathematics.
Knowledge Domains

Mathematics Content Knowledge

Knowledge of Student Learning

Coaching Knowledge

Knowledge of Teacher Learning
Coaching Knowledge

- Communication
- Student Learning
- Teacher Practice
- Teacher Learning
- Relationships
- Leadership
- Assessment
- Teacher Development
Professional Development for Coaches and Administrators

- Eight sessions (October – February)
  - ½ day for coaches and their administrators
  - 1 ½ days for coaches only

- Refresher session (September)
  - ½ day for coaches and their administrator
  - 1 ½ days for coaches only
PD Sessions for Administrators & Coaches (1/2 day)

- Discuss progress of coaching within building
- Establish a culture of coaching in building
- Provide information on effective mathematics classrooms:
  - Standards for Mathematical Practices
  - Principles to Action
- Relate coaching cycle to administration support
<table>
<thead>
<tr>
<th>School Leaders</th>
<th>Mathematics Coach</th>
<th>Teacher</th>
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<tbody>
<tr>
<td>• Articulate a clear vision for teaching and learning</td>
<td>• Ask reflective questions of teachers</td>
<td>• Communicate specific instructional needs to coach</td>
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<td>• Implement coaching as a professional development model</td>
<td>• Provide feedback to teachers</td>
<td>• Ask for specific types of support from the coach</td>
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<td>• Set aside time for coaching within the daily schedule</td>
<td>• Share instructional materials and resources</td>
<td>• Listen to hear ideas being presented</td>
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<td>• Share goals and beliefs of coaching to entire school</td>
<td>• Maintain confidentiality with teachers about coaching sessions</td>
<td>• Take shared responsibility for cultivating a positive and productive coaching relationship</td>
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<td>• Articulate clear expectations for coaching</td>
<td>• Use a structured approach for coaching:</td>
<td>• Set aside appropriate amount of time for coaching sessions</td>
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<td>• Budget appropriate resources (time and personnel) to support coaching</td>
<td>• Gather information before the lesson</td>
<td>• Be open to try new instructional practices</td>
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<td>• Make mathematics coaching a priority</td>
<td>• Observe complete lesson</td>
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<td>• Collect &amp; document evidence from lesson</td>
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<td>• Debrief &amp; reflect with teacher after lesson</td>
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<td>• Be flexible &amp; dependable</td>
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Consumer of Coaching Framework

How to be a Wise Consumer of Coaching (Journal of Staff Development, February 2011)

- Feedback
- Reflection
- Classroom expectations
- Content
- Structure
- Communicating needs
PD for Mathematics Coaches
(1 ½ days)

- Developing rapport and trust with teachers
  - Adult learners
  - Change process

- Observing / practicing coaching techniques
  - Videos
  - Scenarios

- Tools to determine teacher needs
  - Teacher Needs Inventory
  - Reflections (Coach and Teacher)

- Sharing and discussions among coaches
Ten Roles for Coaches
(Killion, 2009)

- Data coach
- Resource provider
- Mentor
- Curriculum specialist
- Instructional specialist
- Classroom supporter
- Learning facilitator
- School leader
- Catalyst for change
- Learner