

The Role of Math Coach in the Elementary School

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Introduction

- The math coach position needs to be clearly defined. With a definite job description and set of expectation, the math coach can implement a variety of supports for both students and teachers. The supports can impact the success of student learning in math. The supports can also influence the ways teachers prepare lessons and collaborate with other teaching staff.
- To be able to be most effective, coaches need to have clearly defined roles and expectations. The coach is "direct support to teachers if their roles are defined" (Killion & Harrison).

- "Coaching is a process, a powerful, confidential relationship, a strategy and dozens of skills and techniques that support an individual or an organization through a change process" (Reiss, 2007).

What is effective coaching?

- Coaching Models
- Characteristics of the Math Coach
- Professional Development
- Administrative and Principal Supports
- Relationships

Types of Coaching

- **Cognitive Coaching:**
focuses on the cognitive processes of teaching
 - **Instructional Coaching:**
provides new strategies for a teacher to use in their classroom
 - **Content-Focused Coaching:**
teacher and coach collaboratively plan, teach, and reflect upon classroom lessons
- The teacher focuses on how to improve not only students' learning process but also their own learning processes. By focusing on their own learning, the teacher will continue to refine their general teaching expertise.

Characteristics of Coaching

- Coaches have coaching skills. They listen carefully, communicate effectively, and use effective questioning skills.
- Coaches have relationship skills. They work with teachers and principals to form a team working on trust and respect.
- Coaches foster leadership through openness, fairness, and non-judgmental observations.

Characteristics of Coaching

- Coaches demonstrate dependability by examining coaching situations to determine the most effective coaching strategies.
- The coach has highly successful teaching experience with positive student outcomes in the same general grade levels (elementary, middle, secondary) and subject area of the teachers to be coached.
- Coaches help improve teacher content through professional development.

Professional Development

- "Coaching is becoming popular, in part, because many educational leaders recognize the old form of professional development, built around traditional in-service sessions for teachers, simply doesn't affect student achievement" (Knight, 2006).
- School districts need coaches who will lead teachers through workshops, model lessons, practice new skills, provide feedback and encourage peer coaching.
- Coaches use non-evaluative observations and support to bridge the gap between isolation and collaboration. The coach and teachers work together to develop goals that have a clear focus on improving student learning.

Administration and Principal Support

- "Coaches struggle to be successful when they do not have the explicit formal and informal backing of administrators within their school and at the district level." (Knight, 2003)
- To develop a successful relationship, coaches and principals need to have open lines of communication, create short and long term goals, and have monthly meetings to discuss progress within the school.

Relationships

- **Nonjudgmental:** The coach needs to be open-minded when observing and collaborating with the coachee. The coach needs to keep personal thoughts out of the conversation so they are able to identify how to help the coachee move forward in their learning process.
- **Possibility Thinker:** The coach is the changing agent. The coach believes all things can be possible. The coach encourages problem solving and opportunities to change negative situations.

Relationships

- **Compassionate/Inspirational/Sincere:** The coach needs to show they truly care by providing inspirational comments that show true caring and concern for the coachees.
- **Action Oriented/Focused on Results:** The coach knows the goal that needs to be accomplished. The coach effectively moves the coachee towards that goal by focusing on mini-accomplishments that encourage further professional growth.

Teacher Input

- **Coaching Responsibilities and Implementation:** An important responsibility is for the coach to provide guidance. Guidance is the ability to give advice, counseling, provide leadership, or direction. Another important responsibility is for the coach to provide materials and resources. The last reoccurring responsibility is for the coach to provide professional development opportunities to the staff. To be effective, the coach needs to advance their own professional development by reading the most current research and by attending the most updated curriculum opportunities.

Teacher Input

Recommendations:

Teachers list many recommendations when defining the role of mathematics coach for the coming school year. The most common recommendation is for each school to have their own coach. With one coach in each school, teachers would have more time to collaborate with the coach. During collaboration the teacher and coach would be able to plan activities and differentiate instruction.

Principal Input

Responsibilities and Supports of the Coach:

The most important responsibility is to model lessons. Principals want the coach to go into classrooms to model lessons. Modeling lessons will provide an opportunity for teachers to watch and learn new strategies. The principals want the coach to find research articles, supplemental materials, games, and activities that will enhance the curriculum and increase student achievement. The resources can be by grade level, content strand, or ability level. Flexibility is another responsibility the principals think is important.

Principal Input

Strengths of Staff, Areas of Improvement, and Supports from Coach:

Principals agree that one of their staffs' most valuable strengths is their ability to care deeply for their students, especially their students with high needs. Both staffs are hard-working and task orientated. The staff stays very flexible with scheduling. An area of improvement the principals would like to see implemented would be for their staff to collaborate more and have better communication among grade levels. To support the staff, the coach needs to observe what level the teachers are at, meet them at their level, and then help them strengthen their skills. To strengthen their skills, the coach needs to focus on the positive skills the teacher is exhibiting and utilize their strengths.

Principal Input

- To be able to provide resources for teachers, principals need to provide a budget for coaches.
- Coaches need to have funding or a budget to have access to professional development books and extra manipulatives.

Math Coach Input

Responsibilities and Implementation:

- maintain a respectful and honest relationship with teachers that ensures a level of trust and thoughtful guidance, not criticism
- help further teachers' understanding of mathematical knowledge and instructional strategies
- collaborating during planning and implementation of lessons
- advocate for and effectively use current adopted curriculum programs and best practices

Math Coach Input

- model best practices and the use of formative and summative assessment data as a basis for the delivery of instruction
- model lesson, observe lessons, help assess student strengths and needs, help interpret data, and evaluate student work
- maintain a collaborative relationship with the principal to ensure clear roles and expectations

Math Coach Input

Strengths of a Coach

- opportunities to learn from other teacher leaders in the school district, mentors, and professional development opportunities
- teaching a variety of grade levels to help teachers make connections across grade levels
- using interpersonal skills to be an active listener especially during collaboration time
- identifying with a variety of teacher concerns and offering thoughtful insights to find solutions, examine current practices, and evaluate student learning

What are some of the responsibilities of a math coach?

- provide guidance to teachers by observing lessons and providing constructive feedback, by modeling lessons and participating in co-teaching opportunities
- gather and provide resources that supplement the curriculum and provide differentiation to maximize student achievement and learning
- have teaching experience and expertise to share

What are some of the responsibilities of a math coach?

- be flexible and dependable
- be an active participant in grade level team meetings, and have consistent communication with staff
- be an excellent listener
- provide professional development opportunities to keep teachers informed about the latest and most updated educational trends

What are some of the supports that administration can provide to make the position of the math coach successful?

- keep open lines of communication
- build rapport and show respect to each other's positions
- compromise and work towards long term and short term goals
- plan meetings weekly and/or monthly to discuss successes, review plans, and make changes
- remember the principals are ultimately in charge and the coaches are there as instructional leaders who support the principal's vision

Effective Coaches are:

- "an unusual blend of master classroom teacher, expert listener, and skillful questioner. An effective student achievement coach has a remarkable influence on the culture of a school and its staff members. I have seen case after case where student achievement has improved significantly; when teachers and administrators are asked to explain the increase, they agree it is a result of the instructional leadership of their coach" (Killion & Harrison, 2006).

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