

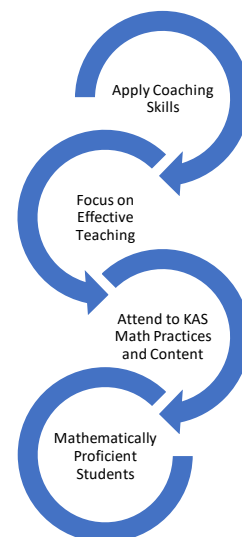
M² Mathematics Coaching

Mathematics Achievement Fund RFA Professional Learning Plan

Facilitators: Dr. Maggie B. McGatha, M² Consulting
Dr. Jennifer Bay-Williams, University of Louisville

Overview

M² Consulting Mathematics Coaching Professional Learning blends together three knowledge bases: (1) effective coaching skills, such as listening skills; (2) deep knowledge of mathematics, as described in the *Kentucky Academic Standards (KAS) for Mathematics*, and (3) knowledge and skill at helping teachers learn as it relates to effective mathematics teaching practices (NCTM, 2014). These three knowledge bases equip the mathematics coach so that they can help teachers prepare mathematically proficient students. Mathematically proficient students know the content described in *KAS for Mathematics*, and engage in doing mathematics, as described in the *KAS Mathematical Practices*.



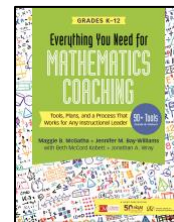
Professional Learning Plan At-a-Glance

- **Full year of Mathematics Coaching professional learning.** This reflects the research on STEM professional development that is most likely to impact student learning.
- **2 face-to-face events, at the start and end of the year.** These sessions will delve into the ideas described in the overview, with a particular focus on developing mathematically proficient students through effective mathematics teaching practices.
- **Monthly virtual small-group sessions.** Small group sessions will focus in on particular content topics of interest/need (e.g., coaching to support math fluency), as well as address pedagogical priorities (e.g., how do we help teachers support their students with special needs?)
- **NCSM Leadership in Mathematics Education Organization Membership and Conference Registration.** This organization and conference bring together mathematics coaches from around the country who learn and grow together. Attending a conference provides learning beyond the scope of the course sessions, allowing participants to select sessions that address their specific coaching needs and to meet others with similar contexts.
- **National Council of Teachers of Mathematics (NCTM) Membership and Conference Registration.** This organization is the largest mathematics organization. Their journal (which comes with membership), online resources, and conference, provide many resources coaches rely on. Throughout the year, we will access various resources from this organization.
- **Math Coaches Library (valued at \$1000)**
 - Resources to support coaching
 - These books will be connected to the small-group sessions, as participants will join mini-book studies related to high priority topics.
- **Recommended additional resources** (to consider in designing a budget):
 - **iPad and pen to support coaching**
 - **Manipulatives and tools to support effective teaching**

Professional Learning Plan

Summer 2022—Coaching to Develop Mathematically Proficient Students

- **Goal:** Using the *Leading for Mathematical Proficiency* framework, participants will go deep into mathematics learning goals for students and how to connect those to effective mathematics teaching. In general, participants will delve into the ideas synthesized in the Overview above and elaborated in *Everything You Need to Know About Mathematics Coaching* (McGatha & Bay-Williams, 2018). The book will be provided to participants as part of the mathematics coaching library.
- **Location:** Frankfort, KY
- **Dates & Times:**
 - **Launch – Framework and Network.** Tues., July 19th, 4:00 PM – 6:00 PM EST
 - **Math Proficiency & Effective Teaching:** Wed., July 20th, 9:00 AM - 4:00 PM EST



Fall 2022/Spring 2023 – Implementing Effective Mathematics Coaching

- **Goal:** The goal of each of these sessions is twofold. First, to support mathematics coaches in the day-to-day work they will be doing. Second, these sessions will add to the knowledge and skillset for effective coaching.
- **Sessions:** Sessions will focus on important areas that impact student learning, such as effective questioning and engaging students. Later sessions will be based on needs of coaches in the cohort. These sessions will include readings from the Mathematics Coaches Library (see above).
- **Location:** Virtual, using Zoom (we will meet in small groups as virtual learning communities).
- **Time:** Mathematics coaches will attend eight monthly, 90-minute virtual sessions throughout 2022-23 (Sept, Oct, Nov, Jan, Feb, Mar, Apr, & May). Specific dates to be determined.

Summer 2023—Sustaining Mathematics Coaching Efforts

- **Goal:** Participants will revisit the *Leading for Mathematical Proficiency* framework, with a focus on student learning of *KAS for Mathematics*. Participants will explore additional coaching skills, and address topics identified as priorities through the virtual sessions.
- **Location:** Frankfort, KY
- **Dates & Time:**
 - **Launch – Framework and Network.** Tues., July 18th, 4:00 PM – 6:00 PM EST
 - **Math Proficiency & Effective Teaching:** Wed., July 19th, 9:00 AM - 4:00 PM EST

Fall 2023—Extending Our Mathematics Coaching Knowledge and Network

- **Goal:** Participants will extend mathematics coaching knowledge and professional networks beyond M² Mathematics Coaching participants by attending NCSM and NCTM conferences, with a focus on mathematics coaching priorities.
- **Location:** Washington, D.C.
- **Dates:** October 23 – October 28, 2023

Note: registration will be covered by M²; all other travel expenses are additional.

Cost for M² Math Coaching Professional Learning: \$5,000/Mathematics Coach