The Impact of Mathematics Coaching on Teachers and Students

Many schools and districts across the country are using mathematics specialists or coaches in an effort to improve teaching and learning in mathematics. Research in this area answers three main questions: (a) How do coaches interact with teachers? (b) What knowledge do coaches need? and (c) What is the impact of mathematics coaching?

• **How Do Coaches Interact with Teachers?** The research focuses on coaching practice in one-on-one settings (one coach and one teacher) and group settings (one coach and multiple teachers).

• **What Knowledge Do Coaches Need?** Standards for Elementary Mathematics Specialists (AMTE, 2009, 2013) suggest three areas necessary for mathematics coaches and specialists: (a) content knowledge for teaching mathematics, (b) pedagogical content knowledge for teaching mathematics, and (c) leadership knowledge and skills.

• **What Is the Impact of Mathematics Coaching?** Research suggests two areas of impact for mathematics coaching: improving teacher instructional practice and improving student achievement.