

Article with Reflection: *Characteristics of High-Quality Teachers*

Read and reflect on *Characteristics of High-Quality Teachers*, by completing the R-C-Q Journal that follows.

1. While reading, record ideas or quotes from the text that elicit a reaction, connection or question for you in the left column of the R-C-Q Journal.
2. Then record those reactions, connections, or questions in the right column.
3. Continue this process throughout the article.

R-C-Q Journal (R eact, C onnect, Q uestion)	
Idea or Quote (from the text)	Reactions/Connections to, or Questions Regarding the Text



ARTICLE ***Characteristics of High-Quality Teachers***

by Robert Marzano and Timothy Waters

To understand the district-level responsibility of setting and monitoring nonnegotiable goals for instruction, it is necessary to understand the characteristics of high-quality teachers. One frequently cited characteristic is experience, and one frequently cited study on the importance of teacher experience is that by Ferguson (1991). Linda Darling-Hammond (1997) describes the study in the following way:

In an analysis of 900 Texas school districts Ronald Ferguson found that teachers' experiences—as measured by scores on a licensing examination, master's degrees, and experience—accounted for about 40% of the measured variance in students' reading and mathematics achievement at grades I through II, more than any other single factor. (p. 8)

Another characteristic often cited regarding teacher effectiveness is certification or licensure (Armour-Thomas, Clay, Domanico, Bruno, & Allen, 1989). For example, licensure is one of the three critical factors mentioned in a landmark report entitled *What Matters Most: Teaching for America's Future* (National Commission on Teaching and America's Future, 1998). The report used the metaphor of a “three-legged stool” for quality assurance:

The three-legged stool of quality assurance—teacher education program accreditation, initial teacher licensing, and advanced professional certification—is becoming more sturdy as a continuum of standards has been developed to guide teacher learning across the career. (p. 29)

Subject-matter knowledge is another apparent feature of high-quality teachers (Andrews, Blackmon, & Mackey, 1980; Haney, Madaus, & Kreitzer, 1987; Schalock, 1979; Soar, Medley, & Coker, 1983). It is one of the primary variables identified in *What Matters Most*. Unfortunately, Hill (2007) reports a rather disturbing finding regarding teacher subject-matter knowledge among middle school mathematics teachers. Specifically, she notes that teachers with the most mathematical knowledge and experience tend not to be working with those students with the greatest needs.

The relationship between subject-matter knowledge and effective teaching, however, is not straightforward. That is, one cannot say that those with the most subject-matter knowledge are necessarily the best teachers. Reviews of the research commonly reveal an uneven relationship between teacher subject-matter knowledge and student achievement. Byrne (1983) reviewed thirty-one studies and found that only seven showed a positive relationship between teacher subject-matter knowledge and student achievement. Ashton and Crocker (1987) reviewed fourteen studies and reported that only five found positive relationships between teacher subject-matter knowledge and student achievement. Monk (1994) reported that a threshold level of subject-matter knowledge is necessary for effective teaching, but after a certain point, such knowledge does not have a strong relationship with student achievement. Taken together, these findings imply that a critical level of subject-matter knowledge is needed for effective teaching, but beyond that point, the relationship between teacher subject-matter knowledge and student achievement begins to taper off. Additionally, it is reasonable to assume that the critical level of knowledge is different from grade level to grade level. The critical level of subject-matter

knowledge required to teach third-grade mathematics is certainly far less than the critical level of subject-matter knowledge required to teach tenth-grade mathematics.

The discussion thus far points to a fairly straightforward approach to a district-level emphasis on effective teaching in every classroom—recruit the most highly qualified teachers and retain them. We certainly believe that this should be a top priority of every district. However, effective recruitment and retainment might not be the only road to ensuring high-quality instruction. Rather, fostering high levels of pedagogical knowledge can also dramatically enhance the quality of teaching in a district. As Darling-Hammond (2000) notes:

It may be that the positive effects of subject matter are augmented or offset by knowledge of how to teach the subject to various students. That is, the degree of pedagogical skill may interact with subject-matter knowledge to bolster or reduce teacher performance. (p. 6)

In a study of 200 teachers, Ferguson and Womack (1993) reported that the amount of pedagogical courses teachers took accounted for four times the variance in teacher performance than did subject-matter knowledge. In a study involving some 7,500 eighth-grade students, Weglinsky (2000) reported that participation in professional development activities accounted for significant amounts of variance in mathematics and science achievement. Specifically, teacher experience and involvement in professional development activities accounted for about as much variance in student achievement as did student background. In a study of the relative effects of teacher background qualification, attitudes, and instructional practices, Palardy and Rumberger (2008) concluded,

The results indicate that compared with instructional practices, background qualifications have less robust associations with achievement gains. These findings suggest that the No Child Left Behind Act's "highly qualified teacher" provision, which screens teachers on the basis of their background qualifications, is insufficient for ensuring that classrooms are led by teachers who are effective in raising student achievement. To meet that objective, educational policy needs to be directed toward improving aspects of teaching, such as instructional practices and teacher attitudes. (p. 111)

Similar sentiments about the importance of pedagogical knowledge have been echoed by many other researchers (Brown, Smith, & Stein, 1995; Byrne, 1983; Wiley & Yoon, 1995).

A Focus on Pedagogy

Taken as a whole, the preceding discussion highlights the importance of recruiting and retaining teachers who are experienced, have proven track records of enhancing student achievement, and are well grounded in subject-matter content. However, this is not the only action a district can and should take. In addition to effective hiring and retainment practices, our findings suggest that districts should have an explicit goal regarding the continuous improvement of pedagogical skills among teachers in the district. Such a goal is consistent with the apparent purpose of professional learning communities (PLCs). As described by Stoll, Bolam, McMahon, Wallace, and Thomas (2006), the label *professional learning community* is used in a wide variety of ways. However, most discussions of PLCs emphasize the importance of teachers enhancing their pedagogical skills in a reflective, cooperative manner:

There appears to be broad international consensus that it [a PLC] suggests a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way (Mitchell & Sackney, 2000; Toole & Louis, 2002); operating as a collective enterprise (King & Newmann, 2001). (Stoll et al., 2006, p. 223)

