

# LINKING

## TEACHER EVALUATION and STUDENT LEARNING

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# The Power of an Effective Teacher and Why We Should Assess It

This is the value of the teacher, who looks at a face and says there's something behind that and I want to reach that person, I want to influence that person, I want to encourage that person, I want to enrich, I want to call out that person who is behind that face, behind that color, behind that language, behind that tradition, behind that culture. I believe you can do it. I know what was done for me.

—Maya Angelou

The transformative power of an effective teacher is something almost all of us have experienced and understand on a personal level. If we were particularly fortunate, we had numerous exceptional teachers who made school an exciting and interesting place. Those teachers possessed a passion for the subjects that they taught and genuine care for the students with whom they worked. They inspired us to play with ideas, think deeply about the subject matter, take on more challenging work, and even pursue careers in a particular field of study. Some exceptional teachers achieve celebrity status,

such as Jaime Escalante, the math teacher who inspired the film *Stand and Deliver*, but thousands of unsung heroes go unrecognized in their remarkable work with students on a daily basis.

### Qualities of Effective Teachers

We know intuitively that these highly effective teachers can have an enriching effect on the daily lives of children and their lifelong educational and career aspirations. We now know empirically that these effective teachers also have a direct influence in enhancing student learning. Years of research on teacher quality support the fact that effective teachers not only make students feel good about school and learning, but also that their work actually results in increased student achievement. Studies have substantiated that a whole range of personal and professional qualities are associated with higher levels of student achievement. For example, we know that verbal ability, content knowledge, pedagogical knowledge, certification status, ability to use a range of teaching strategies skillfully, and enthusiasm for the subject characterize more successful teachers.<sup>1</sup> The following are some of the key qualities of effective teachers:

- Have formal teacher preparation training.
- Hold certification of some kind (standard, alternative, or provisional) and are certified within their fields.
- Have taught for at least three years.
- Are caring, fair, and respectful.
- Hold high expectations for themselves and their students.
- Dedicate extra time to instructional preparation and reflection.
- Maximize instructional time via effective classroom management and organization.
- Enhance instruction by varying instructional strategies, activities, and assignments.
  - Present content to students in a meaningful way that fosters understanding.
  - Monitor students' learning by utilizing pre- and postassessments, providing timely and informative feedback, and reteaching material to students who did not achieve mastery.

- Demonstrate effectiveness with the full range of student abilities in their classrooms, regardless of the academic diversity of the students.

For a complete listing of these qualities with references, please refer to Appendix A.

Not only does a reasonable consensus exist on what effective teachers do to enhance student learning, but also meta-analyses by researchers such as Marzano, Pickering, and Pollock (2001) have begun to quantify the average effects of specific instructional strategies. When properly implemented, instructional strategies such as identifying similarities and differences, summarizing and note taking, and reinforcing effort and providing recognition can result in percentile gains of 29–45 points in student achievement.<sup>2</sup> Such an increase would mean that the score of an average student at the 50th percentile might rise to the 79th or even the 95th percentile with the effective use of selected instructional strategies. While teaching undeniably will remain an art, there is also a science to it that we are only beginning to aggressively apply to practice. As observed by Mike Schmoker, author of *Results: The Key to Continuous School Improvement*, “when we begin to more systematically close the gap between what we know and what we do, we will be on the cusp of one of the most exciting epochs in the history of education.”<sup>3</sup> With state standards and federal legislation, such as No Child Left Behind, more explicitly defining accountability, the time has arrived for a systematic application of our research-based knowledge.

### Impact of Teacher Effectiveness on Student Achievement

The work of Bill Sanders, formerly at the University of Tennessee’s Value-Added Research and Assessment Center, has been pivotal in reasserting the importance of the individual teacher on student learning.<sup>4</sup> One aspect of his research has been the additive or cumulative effect of teacher effectiveness on student achievement. Over a multi-year period, Sanders focused on what happened to students whose teachers produced high achievement versus those whose teachers produced low achievement results. He discovered that when children, beginning in 3rd grade, were placed with three high-performing teachers in a row, they scored on average at the 96th percentile on Tennessee’s statewide mathematics assessment at the end of 5th grade.

When children with comparable achievement histories starting in 3rd grade were placed with three low-performing teachers in a row, their average score on the same mathematics assessment was at the 44th percentile,<sup>5</sup> an enormous 52-percentile point difference for children who presumably had comparable abilities and skills. Elaborating on this body of research, Dr. Sanders and colleagues reported the following:

... the results of this study well document that the most important factor affecting student learning is the teacher. In addition, the results show wide variation in effectiveness among teachers. The immediate and clear implication of this finding is that seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor. Effective teachers appear to be effective with students of all achievement levels, regardless of the level of heterogeneity in their classrooms.<sup>6</sup>

Further analysis of the Tennessee data indicated that the effects on achievement of both strong and weak teachers persisted over three years: subsequent achievement was enhanced or limited by the experiences in the classrooms of strong or weak teachers, respectively.<sup>7</sup> In other words, learning gains realized by students during a year in the classroom of an effective teacher were sustained over later years and were compounded by additional years with effective teachers. Conversely, depressed achievement results resisted improvement even after a student was placed with an effective teacher, and the negative impact was discernible statistically for approximately three subsequent years. Given results like these, it's no wonder that the researchers found that "a major conclusion is that teachers make a difference."<sup>8</sup>

In a comparable study by researchers in Dallas, Texas, similar results were found in both math and reading during the early grades.<sup>9</sup> When 1st grade students were fortunate enough to be placed with three high-performing teachers in a row, their average performance on the math section of the Iowa Tests of Basic Skills increased from the 63rd percentile to the 87th, in contrast to their peers with similar scores whose performance decreased from the 58th percentile to the 40th, a percentile difference of 42 points. A similar analysis in reading found a percentile difference of 44 percentile points. The studies in Tennessee and Texas produced strikingly similar findings: Highly effective teachers are able to produce much greater gains in student achievement than their less effective counterparts.

While the numbers help to summarize the cumulative academic effects of less effective teachers, we can only imagine the sense of failure and hopelessness that these children and their parents experienced during the years

in these classrooms. Undoubtedly, the children wondered what was wrong with them when, in reality, it was the quality of their instruction. A common yet misguided bit of folk wisdom has been that adversity, in the guise of an ineffective teacher, builds character and that a student can catch up the following year. The research indicates otherwise.

Based on the findings from the Dallas Public Schools' Accountability System, the negative effects of a poor-performing teacher on student achievement persist through three years of high-performing teachers.<sup>10</sup> The good news is that if students have a high-performing teacher one year, they will enjoy the advantage of that good teaching in future years. Conversely, if students have a low-performing teacher, they simply will not outgrow the negative effects of lost learning opportunities for years to come. Further exacerbating the negative effects of poor-performing teachers, the Dallas research shows that "lower-achieving students are more likely to be put with lower effectiveness teachers . . . . Thus, the negative effects of less effective teachers are being visited on students who probably need the most help."<sup>11</sup>

Summarizing the findings from studies of the Dallas and Tennessee Value-Added Assessment Systems, Mendro states:

Research . . . has demonstrated the effects of teachers on student achievement. They [the researchers] show that there are large additional components in the longitudinal effects of teachers, that these effects are much larger than expected, and that the least effective teachers have a long-term influence on student achievement that is not fully remediated for up to three years later.<sup>12</sup>

In straightforward terms, these residual effects studies make it clear that not only does teacher quality matter when it comes to how much students learn, but also that, for better or worse, a teacher's effectiveness stays with students for years to come.

### Highly Qualified Versus Highly Effective

Given the growing body of knowledge about the impact of effective teachers on children, it seems that educational policy is beginning to acknowledge the importance of classroom teachers in addition to curriculum standards and assessments. A case in point is the federal No Child Left Behind Act of 2001, which has introduced both the concepts of "adequate yearly progress," based on annual testing, and "highly qualified teacher," based on

teacher credentials, as strategies to improve U.S. education. According to the legislation, “highly qualified” teachers are defined as those who hold at least a bachelor’s degree, are fully licensed or certified by the state in the subjects they teach, and can demonstrate competence in the subjects they teach.

While licensure or certification is a significant indicator of teacher quality, these factors alone are insufficient for teacher effectiveness. As discussed earlier, teacher effectiveness is characterized by a far more complex set of qualities than one’s professional preparation. It includes dispositions and an array of planning, organizational, instructional, and assessment skills. Effective teachers are able to envision instructional goals for their students, then draw upon their knowledge and training to help students achieve success. A “highly qualified” teacher is certainly a good starting point, but most of us would want our child to have a highly effective teacher whose teaching effort yields high rates of student learning.

### Promoting Teacher Effectiveness

How do we support and cultivate effective teachers for all our schools and all our children? It is our belief that teachers want and need feedback, not only on the act of teaching, but also on the results of teaching. Timely, informative feedback is vital to any improvement effort. For instance, consider the role of a track coach, fitness trainer, or weight counselor. These individuals provide guidance on how to perform better, but the evidence of their effectiveness as professionals manifests in tangible results: improved running time, weight lifted, or pounds lost. It is evident that “people work more effectively, efficiently, and persistently . . . while gauging their efforts against results.”<sup>13</sup>

Teacher evaluation systems are often intended to serve the purpose of providing feedback and guidance for improving professional practice. In fact, most authors identify the fundamental purposes of teacher evaluation as improving performance and documenting accountability.<sup>14</sup> The performance improvement function relates to the personal growth dimension and involves helping teachers learn about, reflect on, and improve their practice. The improvement function generally is considered formative in nature and suggests the need for continuous professional growth and development.<sup>15</sup> The accountability function, on the other hand, reflects a commitment to

the important professional goals of competence and quality performance. Accountability is typically viewed as summative and relates to judging the effectiveness of educational services.<sup>16</sup>

Teacher evaluation traditionally has been based on the act of teaching and documented almost exclusively through the use of classroom observations. In a study conducted by the Educational Research Service,<sup>17</sup> 99.8 percent of U.S. public school administrators used direct classroom observation as the primary data collection technique. However, primary reliance on formal observations in evaluation poses significant problems (e.g., artificiality, small sample of performance) for teacher evaluation.<sup>18</sup> Even under the best of circumstances, when principals might visit a classroom three or four times in a given year, the observation

- Can be artificial by nature,
- Suggests an inspection approach to supervision,
- Has limited validity based on the skill of the observer,
- Is narrow in scope (i.e., restricted to instructional skills only), and
- Involves a small sample of the teacher's actual work with students (e.g., four hours of observation would equal less than 1/2 of 1 percent of a teacher's time teaching during a given year).<sup>19</sup>

Despite these substantial drawbacks to the traditional evaluation process, the truly fundamental flaw in such an approach is the assumption that the presence of good practice during the observation equates to the academic success of students. If student learning is our ultimate goal, then it should be measured directly and not extrapolated from limited observations of classroom instruction. A more balanced approach to teacher evaluation would involve an assessment of the act of teaching as well as the results of teaching. We don't suggest throwing out the use of classroom observation to foster teacher improvement; rather we advocate that teacher effectiveness be judged and demonstrated by both classroom instruction and the learning gains of students.

## Assessing Teacher Effectiveness

Most educators would agree that they are responsible for student learning, but the profession as a whole has avoided evaluations based on measures of student learning, sometimes with good reason, given the unfair approaches

that have been proposed. The solution, however, is not to continue with traditional strategies simply because they are benign and comfortable, but rather to develop fair and reasonable means of assessing teacher success with students. A number of school systems and educational programs, to be discussed later in this book, have explored innovative ways of capturing valid and reliable data on student learning to inform the teacher evaluation process. Developing fair approaches for the assessment of teacher effectiveness requires an unflinching look at both the legitimate concerns that have driven the avoidance of a results orientation in the past, and the promising possibilities that make it more attractive in today's climate of greater accountability for student learning outcomes.

### Concerns

Concerns about assessing teacher quality based on measures of student learning have clustered around what Schalock<sup>20</sup> terms the collective and conditional nature of accountability, as well as the strategies for measuring student learning. Often, accountability efforts in schools are reduced to simplistic mandates for students to reach specified achievement goals at certain points in time. While gratifying as a bottom line, these expectations ignore the complex interdependencies of the learning enterprise. We must consider questions such as, "accountability by whom, with what resources, and as measured by what?"

**Collective nature of accountability: Responsibility by all stakeholders.** Accountability should be thought of as a collective responsibility for supporting learning by parents, principals, superintendents, school board members, and teachers, to say nothing of the students themselves. Holding teachers accountable for student achievement without recognition of the roles played by these other partners in the educational process is patently unfair and can amount to scapegoating. Likewise, requiring students to attend summer school, or retaining them due to limited progress, avoids the collective nature of accountability if school systems have not provided the quality of instruction necessary for students to meet grade level expectations.

Ultimately, learning is a phenomenon that occurs as a result of the interactions between a teacher and student. Teachers cannot be solely responsible for student learning because it is an internally controlled activity. However,

teachers are expected to optimize the conditions for learning. It is what they were hired to do and it is their professional obligation. As Schalock notes, “educator accountability for student progress in learning goes hand-in-hand with the social contract that assigns responsibility for education to schools.”<sup>21</sup>

**Conditional nature of accountability: Resources and student needs.**

Just as many actors affect the educational process, many variables affect the learning process within a classroom and are beyond the control of the individual teacher. These external variables include the level of support provided by the community and state, the availability of books for every child, the number of computers, sufficient instructional supplies, the support of curriculum specialists, and so forth. Within the classroom, the number and type of students can have dramatic effects on the level of academic achievement experienced by the class. Class size does make a difference, especially when a teacher is expected to work with a large number of at-risk students, whether they are disabled, limited in their English, or poor.

**Measurement of student learning.** One additional concern about the use of student learning assessments in the teacher evaluation process is the way in which learning is assessed. The traditional use of grades or standardized achievement scores is certainly suspect for a variety of reasons, including the

- Accuracy of grading procedures,
- Alignment of achievement tests with the curriculum,
- Diagnostic value of either approach for instructional improvement, and
- Single-point-in-time nature of these indicators.

In the absence of meaningful pre-test data, grades or achievement test scores at the end of the year are hardly valid measures of a teacher’s influence during a given year; indeed, they reflect the cumulative effects of what students have learned at home and school over preceding years. A much more accurate measure of what a student has learned would be reflected by an assessment that is curriculum-aligned and administered both at the beginning and end of the year. When such learning gains are averaged over a whole class of students, we have a general indication of the magnitude of learning that took place with that group of children. (A more in-depth discussion of possible assessment strategies will be offered in Chapter 2.)