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90-90-90 Study

Research conducted at The Leadership and Learning Center on the “90/90/90 Schools” has been particularly instructive in the evaluation of the use of standards and assessment. The 90/90/90 research includes four years of test data (1995 through 1998) with students in a variety of school settings, from elementary through high school. Our analysis considered data from more than 130,000 students in 228 buildings. The school locations included inner-city urban schools, suburban schools, and rural schools. The student populations ranged from schools whose populations were overwhelmingly poor and/or minority to schools that were largely Anglo and/or economically advantaged.

The following is an excerpt taken from *Accountability in Action* by Douglas Reeves

Common Characteristics of High Achievement Schools

Our research on the 90/90/90 Schools included both site visits and analyses of accountability data. The site visits allowed us to conduct a categorical analysis of instructional practices. In the same manner that the authors of *In Search Of excellence* (Peters and Waterman, 1982) identified the common practices of excellent organizations, we sought to identify the extent to which there was a common set of behaviors exhibited by the leaders and teachers in schools with high achievement, high minority enrollment, and high poverty levels. As a result, we found five characteristics that were common to all 90/90/90 Schools. These characteristics were:

- A focus on academic achievement
- Clear curriculum choices
- Frequent assessment of student progress and multiple opportunities for improvement
- An emphasis on nonfiction writing
- Collaborative scoring of student work

Written Responses in Performance Assessments

By far the most common characteristic of the 90/90/90 Schools was their emphasis on requiring written responses in performance assessments. While many schools with similar demographic characteristics employed frequent assessment techniques, many of the less successful schools chose to emphasize oral student responses rather than written responses. The use of written responses appears to help teachers obtain better diagnostic information about students, and certainly helps students demonstrate the thinking process that they employed to find a correct (or even an incorrect) response to an academic challenge. Only with a written response from students can teachers create the strategies necessary to improve performance for both teacher and learner.

In virtually every school we have evaluated, student scores on creative writing are significantly higher than informative and narrative writing scores. As a result, teachers in the successful 90/90/90 Schools placed a very high emphasis on informative writing. They typically used a single scoring rubric to evaluate student writing and applied this scoring guide to every piece of written work. Whether the student was writing a book report, lab report, social studies report, analysis of a sporting event, description of a piece of music, or a comparison of artists, the message was the same: this is the standard for good writing, and there are no compromises on these expectations for quality.

The benefits of such an emphasis on writing appear to be two-fold. First, students process information in a much clearer way when they are required to write an answer. They “write to think” and, thus, gain the opportunity to clarify their own thought processes. Second, teachers have the opportunity to gain rich and complex diagnostic information about why students respond to an academic challenge the way that they do. In contrast to the binary feedback (right/wrong) provided by most assessments and worksheets, the use of performance assessments that require written responses allows the teacher to diagnose obstacles to student learning. By assessing student writing, teachers can discern whether the challenges faced by a student are the result of vocabulary issues, misunderstood directions, reasoning errors, or a host of other causes that are rarely revealed by typical tests.

The association between writing and performance in other academic disciplines was striking, and this gets to the heart of the curriculum choices that teachers must make. At the elementary level, for example, teachers were faced with a formidable set of curriculum standards in both science and writing. Many of the most successful schools reported that they had to sacrifice time allocated to every other curriculum area except reading, writing, and mathematics.

Nevertheless, more than 80 percent of the 135 elementary schools in the study improved in science scores in 1998, compared to 1997. The Pearson correlation between writing improvement and science improvement is striking: .74—a large correlation in virtually any area of social science research. This correlation took place without any changes in the science curriculum and few apparent modifications in teaching methods. I would offer the same caution as provided earlier in the chapter that correlation is not causation. Nevertheless, when two variables appear to behave in such a similar way, it is difficult to escape the conclusion that an emphasis on writing improvement has a significant impact on student test scores in other disciplines, including science.