

Making the Best Even Better

Much of the research discussed in these columns has focused on how under-performing schools have been making dramatic improvements through the collaboration of boards of education, senior leadership, school administrators, teachers, and community members. The same approach is also important when high-performing schools challenge themselves to ever higher levels of success. One remarkable example of this “good to great” progression is taking place in Hudson High School in Wisconsin. In a state where much of the national media has focused on strife among teachers and other public employees, it is important to tell the story of exceptional collaboration at every level, from the board room to the classroom.

Learning from the Best

The science team at Hudson High School began its quest five years ago with visits to the highest performing schools in the Wisconsin and Minnesota area and identified the common denominators of success including intensive teacher collaboration, K-12 alignment of curriculum, and personal involvement by teachers in comprehensive design of assessment and instruction. Hudson’s science team meets every day for an hour of common planning, lesson design, and data analysis.

Making the Most of Time

Just as every day has 24 hours, every teacher’s contract day is similar. How do some teacher teams make the most out of the hours available? In the case of Hudson, the science team works every day to use immediately available student data to identify which instructional strategies are most and least effective. One of their most important tools is common formative assessments (Ainsworth, 2006) – every science class in the same grade uses the same assessment – every two weeks, providing a constant stream of real-time data. The teachers use the data to identify specific concepts that must be taught again, and individual students use feedback from these frequent assessments to improve their understanding and achievement.

Incentives for Learning

In most schools, student incentives for learning stop when the test is over. “Get it right the first time – that’s the way the real world is,” is a continuing theme in those schools. Hudson’s approach, however, provides not only incentives for students to get it right the first time, but also for learning from their mistakes. Students reason through their incorrect responses, learn from failure, and continually improve their performance. This is, I would argue, most reflective of the real world that requires continuous improvement and effective responses to feedback. This is also consistent with the research of Carol Dweck of Stanford (2006) and Jeff Howard of the Efficacy Institute (www.Efficacy.org). Howard’s mantra is “FADAF” – Failure And Difficulty Are Feedback – and students will only improve if they use feedback to improve.

Getting to the Root of Learning

The Hudson team learned that there are three typical causes for student difficulty in understanding science concepts – teaching, study, or testing. When a substantial number of students miss an item on the biweekly assessments, the teachers consider first whether or not their instruction was sufficiently clear. One important warning sign of unclear teaching is when a majority of students choose the same distractor – that is, the same wrong answer – on a test.

That phenomenon suggests that the students were paying attention, but that they consistently misunderstood the concept. A second potential problem is poor study habits. Some skills require practice. Although “drill and kill” has been widely scorned in some circles, the truth is that great athletes, musicians, scientists, mathematicians, and writers all need to practice their craft. But there is a difference between practice that is merely compliant and practice that is “deliberative” (Hattie, 2009) – that is, practice that focuses in on the specific weaknesses of students and helps them to improve. Students with poor study skills, for example, tend to practice on what they already do well rather than focus on their weaknesses. The third potential problem is the test item itself. Questions can be ambiguous or there might be more than one “right” answer. By considering all three potential explanations for poor student performance, the Hudson teachers were able to zero in on the best ways to provide helpful feedback and improve student results.

Results

Hudson teachers let the results speak for themselves. Even though the number of low income students has increased substantially since 2007, the percentage of D and F grades in science dropped by 75% - that is, a reduction from 20.5% in 2008 to 4.7% in 2010. The students were the same, the teachers were the same, the contract was the same, and the budget was the same (or, in fact, declining). But performance improved remarkably as a direct result of the collaboration, feedback, and hard work of teachers and students. In addition, attendance improved and student disciplinary infractions in these classes dropped to nearly zero. It is, the teachers explained, a more fun and rewarding environment in which to teach.

Leveraging Success

The question facing system-level leaders and policymakers is how to leverage case studies of success into system-level achievement. Hudson board members, administrators, and teachers provide an important answer here. They did not change the people – firing the old teachers, recalling the board members, or replacing the administrators. They did not receive extra money or void their union contract. They certainly did not make things easier for students by merely lowering standards in order to improve grades. Rather, they focused on the essence of teaching: curriculum, assessment, feedback, and hard work. The results in Hudson are not “grade inflation” but “work inflation” – teachers, administrators, and most importantly students, all working harder to respect teacher feedback and achieve better results. As is so often the case in school improvement, the real “secret” was not a proprietary program, but hard work.

Side note: The Hudson teachers involved in this report included biology teachers Amy Petermeier (who is also the Science Department Head), Brian Petermeier, Erin Meier-Williamson, and Jami Holum. Laura Love, Hudson High School Principal, and Scott Huffman, Associate Principal, were directly involved in restructuring the schedule to provide time and opportunity for effective collaboration.

Ainsworth, L. & Viegut, D. (2006). *Common formative assessments: How to connect standards-based instruction and assessment*. Thousand Oaks, CA: Corwin Press.

Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York: The Random House Publishing Group.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York: Routledge.