But What Do You Do With the Data?

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Using data to redesign instruction is a means of increasing student achievement. Educators in Camden County (GA) Schools have used data from benchmark testing since 1999. They hired a commercial vendor to design a benchmark test that is administered four times a year and use the data to generate subject-area reports that can be further disaggregated by grade, team, teacher, and student. To use data, teachers must accept the data, know what the numbers indicate, and be ready to change their instruction (Wiggins, 2004). Therefore, teacher leaders in each of the 12 schools organize the test data and help teachers through the stages of growth that are inherent with data usage (Trimble, Gay, & Matthews, 2005).

Camden uses three steps to get the most out of its test data:
- Schedule intensive data sessions
- Prepare data for teachers to examine
- Lead teachers in data analysis.

Data Sessions
The first step in using data is to schedule data sessions as soon as the results are ready and mark data sessions on the benchmark calendar. Benchmark data are “real-time data”—that is, they measure the learning of the students the teachers are currently teaching. The teachers need the results immediately so they can revise their instruction for the same students who took the test.

Provide uninterrupted time for teachers to study their results, and do not schedule data sessions on school picture days or pep rally days. Keep in mind that the first time that teachers examine data, they will need plenty of time to digest it. Some schools in Camden set aside half a day for the first data session. In middle level and high schools that operate on a block schedule, a single block may suffice.
Schedule by teams of teachers to enable discussion about the data among peers. Common planning periods allow teachers the collegiality to share and support each other. Elementary schools often conduct data sessions by grade level.

**Prepare the Data**
The principal and the lead teachers must organize the data and prepare sample strategies to improve student learning before the first data session. Teachers can be resistant to changing their instructional strategies, so organizing the data well is important.

**Start With the Big Picture**
Begin by examining the data reports of the whole school, then look at the reports that disaggregate the data by grade, by teacher, and by individual student. This will help you identify overall school trends and big areas of need that relate to standards or objectives. Lead teachers are essential to this process because they know the subject areas and the teachers’ responsibilities.

**Examine Team-Level Data**
Look for categories of weakness and identify individual objectives; these are “intensive care” objectives. Compare these areas with other grades. For example, if the reports reveal that students in grade 7 struggled with elements of plot in literature, see whether students in grade 6 or 8 also scored low in that area. It helps to prepare a comparison chart of school-level highs and lows by grade levels. Once you have identified areas of need by standards, turn to the tests themselves and identify the questions that students scored poorly on. Determine whether the test items were confusing or poorly worded and be ready to help teachers analyze these items.

**Identify Resources**
Choose four or five areas of weakness and find resources that address those areas. Prepare copies of activities, Web sites, and performance tasks for each teacher on the team. Keep in mind that the goal is to match intensive care objectives with additional strategies and materials. Prepare to model a new strategy. If playing a game will help teachers reteach students a specific skill, be prepared for the team to actually play the game during the session. If a Web site offers a lesson that teaches the concepts in a new way, bring a computer to the meeting and guide the team of teachers through the site.

**Keep Records**
Save all the materials for the first session in one place. These materials include files of the data reports, copies of the benchmark test with answers, individual folders of test results for each teacher, and resource materials prepared for the intensive care objectives.

**Meet With the Teachers**
Instructional leaders must be prepared for teachers’ reactions to the data when they see them for the first time. When faced with poor test scores from students they are currently teaching, teachers initially feel frustrated and anxious; they may feel that the data indicate a judgment of their ability and performance. Teachers should receive sufficient time to vent, without comments from the instructional leaders.

Instructional leaders should express congratulations for the overall excellence of the reports. If the overall scores are not excellent, they should mention the areas that do show progress. To help keep the meeting on track, teachers should receive copies of the agenda, such as:

- Examine the test: 10 minutes
- Review the data: 40 minutes
- Learn a new strategy: 20 minutes
- Develop an action plan: 20 minutes.

**Examine the Test**
Begin the session with a review of the test. The purpose of this key step is for teachers to examine the test items for problematic wording. Distribute teacher copies of the benchmark tests with answers and objectives clearly identified. The lead teacher can point out that if the test item was ambiguous or of poor quality, the student test results may be unreliable. Be prepared for teachers to attack the test. The lead teachers can help teachers vent by accepting the comments without defending or reacting negatively to such comments as “That last question seems vague to me; I bet they missed that one” and “We don’t use that word.... Who designed these questions, anyway?” Many times teachers will say, “I didn’t teach that yet” or “I didn’t use those terms [or format] when I taught it.” Allow 10 minutes for such criticism and then move on to examining test results.
Review the Data
Each teacher should receive a copy of the testing report for his or her own classes and a copy of the benchmark report showing the results for the entire grade level. Each teacher should use the reports to examine his or her students’ performance and compare it to the overall grade level average.

Class reports can be shown in bar graph format to illustrate the level of mastery for each objective or standard for each teacher’s classes. The lead teacher should direct teachers to look at the highest and lowest bars on the graphs and the corresponding objectives or standards they represent. The teachers will often turn to the test questions that assessed these objectives and begin to ask one another how some teachers’ classes achieved the high scores in areas where other teachers’ classes received low scores.

This interaction marks the beginning of true collaboration. For example, if a class shows particularly high scores on figuative language, other teachers will probably ask that teacher how he or she taught that class and what strategy and material he or she used. These discussions can help teachers develop ideas for reteaching. This is also a good point at which to plan to address the gaps in learning and find ways to incorporate review in the upcoming units and lesson plans in anticipation of state-mandated tests.

Respect Teachers’ Privacy
Do not give out any report that identifies another teacher individually. Teachers always want to know how they compare with their peers. This is natural, but it would be unfair to show each teacher’s class results. For example, teachers who teach special education students in a collaborative classroom will have scores that might not compare fairly with classrooms that contain a number of students who participate in the gifted program.

Learn a New Strategy
The teacher leader models a strategy, graphic organizer, game, or other instructional piece that specifically addresses one of the objectives on which students earned low scores. He or she presents Web sites or other resources that teachers can use to reteach the objective to their classes. Teachers should receive time to practice the new strategies and become comfortable with new resources before trying them out in class.

Create an Action Plan
The lead teacher asks the teachers to work together to decide how to revise their instruction for specific intensive care areas. Lead teachers can help by suggesting some of the following additional strategies for revising instruction.

- **Item analysis with their students.** Teachers and students look at specific questions and answers for frequently missed items on the benchmark tests.

- **Group students by common weakness.** Teachers can identify students who share common weaknesses and group them together for instruction. During social studies class, for example, one teacher might teach a group of students who need to learn map skills while another teacher teaches a lesson in the economics of a region. For some teams, using the first 45 minutes of the day or an instructional block as “reteach and review” time can be effective.

- **Examine student work.** Structure a team meeting session so teachers can look at the results of a lesson. They can share ideas about the reasons for the success or lack of success of that lesson.

Focus on the Positive
These steps require teachers to move beyond the tried and true to improve their instruction. As teachers are working through these steps, school leaders must be careful not to be critical. This is not a good time to do annual evaluations. Teachers will need support and encouragement as they try to reach students in new ways. They will also need reassurance that they won’t be penalized for attempting new strategies.

Data from benchmark tests are only useful if teachers and principals know how to use them to modify instruction. These steps can help school leaders make the most of benchmark data.

References