DOINGWHATWORKS

Presentation

FULL DETAILS AND TRANSCRIPT

Making Data Part of an Ongoing Cycle of Instructional Improvement

January 2010

Topic: Using Student Achievement Data to Support Instructional Decision Making

Practice: Cycle of Improvement

Highlights

- Teachers can use data to help guide their instructional decision making and improve their ability to meet their students' learning needs by engaging in a cycle of instructional improvement.
- This cycle include collecting and preparing relevant data about student learning, interpreting that data and developing hypotheses about what may be needed to help students improve, and testing these hypotheses by implementing changes in instructional practice and assessing their impact on student learning.
- The cycle can contnue as teachers collect and interpret additional student achievement data and test new hypotheses.

Full Transcript

Slide 1: Welcome

Welcome to the overview on Making Data Part of an Ongoing Cycle of Instructional Improvement.

Slide 2: The data use cycle

Teachers can use data to help guide their instructional decision making and improve their ability to meet their students' learning needs by engaging in a cycle of instructional improvement.

This cycle includes:

- Collecting and preparing relevant data about student learning,
- Interpreting that data and developing hypotheses about what may be needed to help students improve, and
- Testing those hypotheses by implementing changes in instructional practice and assessing their impact on student learning.

The cycle can continue as teachers collect and interpret additional student achievement data and test new hypotheses.

Teachers can enter the cycle at any point, for example, testing a hypothesis using existing data or evaluating a recent change in a teaching technique.

Slide 3: Collecting data

Because each assessment type has its own advantages and limitations, and no single assessment provides all the information teachers need, it's necessary to collect data from multiple sources.

Results from annual statewide assessments can help teachers understand students' strengths and weaknesses, identify students who may need particular support, and set performance goals. However, significant time may have passed between when the assessment was administered and when the results are available to teachers. During that interval, students' knowledge and skills may have changed significantly.

Results from interim assessments, which are administered consistently across a district or school at regular intervals throughout the year, are readily comparable across classrooms. However, they do not provide immediate feedback about student learning.

Classroom data drawn from unit tests, projects, classwork, and homework can be combined with Individualized Education Plans and records from parent meetings to provide rich, detailed pictures of

students' academic performance. This kind of data can be gathered quickly, providing teachers with immediate feedback about student learning. The disadvantage is that the assignments, conditions, and scores are not generally comparable across classrooms.

Slide 4: Interpreting data

Both teachers and students benefit when data is interpreted collaboratively in grade-level or department-specific teams. Through collaboration, teachers can share effective practices, adopt common expectations for student performance, and develop a collective understanding of the needs of individual students.

When interpreting data, the first objective is to identify the overall areas of relative strength and weakness in each class so that instructional time and resources can be allocated to serve the most pressing instructional needs. The second objective is to identify the strengths and weaknesses of individual students so that assignments, instructional methods, and feedback can be adjusted accordingly.

Once multiple data sources have been analyzed, teachers need to develop hypotheses about potential instructional changes to meet these overall and individual student needs.

Slide 5: Modifying instruction

Once hypotheses about instructional changes have been formed, they need to be tested.

Common strategies include:

- Allocating more time for instruction in essential skills,
- Reteaching or preteaching skills that seem challenging for students to grasp,
- Providing additional help with particular skills to individual students,
- Implementing different teaching techniques for challenging subjects,
- Aligning performance expectations across classrooms or grade levels, and
- Improving curriculum alignment.

For example, if student assessment results show that students are having difficulty mastering two-digit multiplication, teachers may decide to spend an extra 20 minutes on this skill for one week and then retest students to see if mastery has improved.

Slide 6: Guidelines for testing hypotheses

Teachers may consider the following guidelines when testing hypotheses:

- A complex instructional change requires more time allocated in order to carry it out.
- Once data on the effectiveness of the instructional change has been analyzed, teachers need to decide whether to continue with the change "as is," modify it, or try a totally new approach.

Slide 7: Challenges

The data cycle is not without its challenges. Teachers may have so much data that they are not sure where to focus their attention. By asking specific questions and concretely identifying which data addresses those questions, the range of data can be narrowed to something more manageable. Administrators can guide this process by setting schoolwide goals that help clarify the kinds of data that teachers should be examining.

Some subject areas, such as music or physical education, lack readily available student achievement data. Teachers can work collaboratively, however, to develop their own assessments that are linked to schoolwide achievement goals.

Slide 8: Importance of multiple sources

Lastly, teachers and school staff should use data from multiple sources to identify and serve the needs of all students, not just an isolated group. No single test score should be used to make decisions about individuals; instead, multiple sources of information need to be considered when assigning students to courses or programs and making adjustments to instruction.

Slide 9: Learn more

To learn more about Making Data Part of an Ongoing Cycle of Instructional Improvement, please see the additional resources on the Doing What Works website.