

## Using Operational Data, Including Classroom Observations

*Center on Instruction/Center on Innovation & Improvement*

Student learning data tells us the results of the school's operations. To improve those results, we must also examine operational data. Operations include each teacher's delivery of instruction, but also teachers' instructional planning, their development and alignment of curriculum, and their teaming processes. Operations also extend to the support services provided for students, the curriculum and course offerings, the schedule, and the allocation of resources. In other words, the school's operations are seen in the daily practices of the adults in the building, the people with responsibility for students' learning. In order to make the adjustments in practice that lead to improved student learning, information about the school's operations must be examined alongside student learning data. Results for students improve when the adults in the school change what they do that influences student learning.

The quality of school operations can be assessed by rating practices using indicators of effective practice, rubrics, and examples of evidence. States and districts provide instruments and assessment/planning tools for school teams to engage in continuous improvement cycles through regular examination of their operational practices (Redding, 2006). See the Appendix for examples of indicators of effective practice from the Center on Innovation & Improvement and the National High School Center.

Enhancing the quality of instruction is a key to school improvement. To improve teaching quality, data on classroom instruction is essential. These data may focus on teacher behavior only or on the interaction of teacher and student behavior. The former is common for teacher appraisal and the latter is common for understanding how variations in teaching behaviors affect gains in student achievement (Foorman & Schatschneider, 2003; Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002; Taylor, Pearson, Peterson, & Rodriguez, 2003).

In the latter case the observation may include questions about student engagement and the fidelity with which a particular curriculum is implemented. In both cases, the observation instruments must have adequate reliability and validity if they are to be used for decision making. Reliability can generally be increased by increasing the number of times the teacher is observed or by increasing the number of observers. In order for a measure to be valid, it must be reliable, i.e., replicable. Thus, the goal of measuring instruction of inferential comprehension strategies is only realized if inter-rater reliability is adequate (Gersten, Dimino, & Jayanthi, 2007).

### **Action Principles**

#### **For State**

1. Provide districts and schools with standards and indicators of effective practice along with tools for self-assessment and planning for continuous improvement.
2. Use a classroom observation tool for monitoring schools in need of improvement, in corrective action, or undergoing restructuring; make it a part of the leadership plans for instruction.

#### **For District**

1. Maintain a district-level improvement team that engages in continuous examination of district practices, guided by standards and indicators of effective district practice.
2. Use a classroom observation tool for monitoring schools in need of improvement, in corrective action, or undergoing restructuring; make it a part of district leadership and instruction plans.

#### **For School**

1. Maintain a school improvement team that engages in continuous examination of school practices, guided by standards and indicators of effective district practice.
2. The administrative team might use a classroom observation tool to link data on instructional practices to students' achievement. These data can be used to inform decisions regarding teacher professional development and the need for additional instructional resources.

## References and Resources

- Connor, C. M., Morrison, F. J., Fishman, B. J., Ponitz, C. C., Glasney, S., Undersood, P. S., . . . Schatschneider, C. (2009). The ISI classroom observation system: Examining the literacy instruction provided to individual students. *Educational Researcher*, 38(2), 85-99.
- Foorman, B. R., & Schatschneider, C. (2003). Measurement of teaching practices during reading/language arts instruction and its relationship to student achievement. In S. Vaughn & K.L. Briggs (Eds.), *Reading in the classroom: Systems for observation of teaching and learning* (pp. 1-30). Baltimore, MD: Brookes Publishing Co.
- Foorman, B. R., Seals, L., Anthony, J., & Pollard-Durodola, S. (2003). Vocabulary enrichment program for third and fourth grade African American students: Description, implementation, and impact. In B. Foorman (Ed.), *Preventing and Remediating Reading Difficulties: Bringing Science to Scale* (pp. 419-441). Austin, TX: Pro-Ed.
- Gersten, R., Dimino, J., & Jayanthi, M. (2007). Towards the development of a nuanced classroom observational system for studying comprehension and vocabulary instructing. In B.M. Taylor & J.E. Ysseldyke (Eds.), *Effective instruction for struggling readers, K-6* (pp. 196-215). New York, NY: Teachers College Press.
- Pianta, R. C., La Paro, K., & Hamre, B.K. (2008). *Classroom assessment scoring system (CLASS)*. Baltimore, MD: Brookes Publishing Co.
- Redding, S. (2006). *The mega system: Deciding. Learning. Connecting. A handbook for continuous improvement within a community of the school*. Lincoln, IL: Academic Development Institute. Retrieved from [www.centerii.org/survey](http://www.centerii.org/survey)
- Rissman, L., Miller, D. H., & Torgesen, J. K. (2009). *Adolescent literacy walk-through for principals: A guide for instructional leaders*. Portsmouth, NH: RMC Research Corporation, Center on Instruction. Retrieved from <http://www.centeroninstruction.org/files/Adol%20Lit%20Walk%20Through.pdf>
- Rowan, B., & Correnti, R. (2009). Studying reading instruction with teacher logs: Lessons from the study of instructional improvements. *Educational Researcher*, 38(2), 120-131.
- Smith, M. W., Dickinson, D. K., Sangeorge, A., & Anastasopoulos, L. (2002). *Early Language & Literacy Classroom Observation (ELLCO) Toolkit*, Research Edition. Baltimore, MD: Paul H. Brookes.
- Tanner-Smith, T., Jordan, G., Kosanovich, M., & Weinstein, C. (2009). *Principal's reading walk-through: Kindergarten-grade 3. Participant's guide*. Portsmouth, NH: RMC Research Corporation, Center on Instruction. Retrieved from <http://www.centeroninstruction.org/files/PRWT%20K3%20Participant%20Guide.pdf>
- Taylor, B. M., Pearson, P. D., Peterson, D., & Rodriguez, M. C. (2003). What matters most in promoting reading growth? Toward a model of reading instruction maximizing cognitive engagement in literacy learning. *The Elementary School Journal*, 104(1), 3-28.