Effective Use of Data in School Decision Making Processes

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Project Goals

- Increase the capacity of schools to effectively use data in decision-making, continuous improvement, and school reform.

- Conduct research on the processes and tools schools use to collect, manage, analyze, and report data to support continuous improvement and school reform.

- Provide external feedback to CRESST on the implementation of the QSP software in Chicago schools, to share in designing an evaluation, and to engage in joint problem solving and reflection.
Project Description

- Project Location: Milwaukee Public Schools

- Year 1: June 1, 1999, through May 31, 2000
  - 2 Middle Schools

- Year 2: June 1, 2000, through May 31, 2001
  - 2 Middle Schools
  - 2 High Schools
Project Partners

- CRESST (The National Center for Research on Evaluation, Standards, and Student Testing) is located at the University of California-Los Angeles (UCLA) [http://www.cse.ucla.edu/](http://www.cse.ucla.edu/).

- More information on the Quality School Portfolio (QSP) software can be found at [http://qsp.cse.ucla.edu/](http://qsp.cse.ucla.edu/).
Research Questions

1. What are the data needs of schools?
2. How can schools use data effectively to meet their needs?
3. What level of data analysis is useful to schools?
4. How can the quality and flow of data to schools be improved?
Training and Technical Assistance

School teams were trained in how to use:
- Continuous Improvement Processes
- Analytical Research Models
- QSP and Excel software

Technical Assistance for data collection, database management, analysis, results presentation, and data-driven decision-making.
Research: Data Collection

Methods

- **Baseline data collection**: Interviews with team members; a technology assessment of each school’s hardware, software, and extant data; and a staff survey of the entire faculty at each school.

- **On-going data collection**: Training session evaluations; school-level descriptive, operational and student performance data sets; interim interviews with team members; documentation of on-site technical assistance; and recorded observations of the teams using QSP.

- **End-of project data collection**: Focus group sessions at each school to obtain feedback on the school’s use of data and QSP; and workshop reports and presentations prepared by each school.
Presentation

Sarah Mason

Turning Data into Knowledge: Lessons from Six Milwaukee Public Schools

- Successes in using data effectively
- Six challenges schools need to confront as they build capacity to use data for decision-making
- Lessons-Learned
Presentation

Jeffrey Choppin

Data Use in Practice: Examples from the School Level

Case study summaries of six Milwaukee Public Schools

Examples of effective data use
A Functional Analysis of Information Tools for Data Use in Schools

- Overview of the MPS information technology infrastructure
- Four-dimensional framework to compare QSP to other information tools supported by MPS.
- Evaluates QSP and other MPS tools for use in data-informed decision-making.
Presentation

Chris Thorn

Data Use in the Classroom: The Challenges of Implementing Data-based Decision-making at the School Level

- Information Processing Model: Human Information Seeking
- Decision-making Model: Sensemaking, Knowledge Creating, and Decision Making
- Technical and Organizational Capacity
Discussion

Derek Mitchell

- Oakland Unified School District
- Quality School Portfolio (QSP) software.
Turning Data into Knowledge:
Lessons from Six Milwaukee Public Schools

Sarah Mason
Successes

Organization and Process

- Continuous Improvement
- Problem Solving
- Analytical Research Models
- Communication
Successes

Technology

- Data
- Management
- Databases
- Analysis and Reporting tools
Successes

Analysis

- Descriptive
- Visual representation
- Longitudinal
- Correlations
- “Event-based data”
Successes

Application

- Student placement
- Resource allocation
- Targeted interventions for students in need
- Informing teachers
Challenges

- Cultivating the desire to transform data into knowledge
- Focusing on a process for planned data use
- Committing to the acquisition and creation of data
- Organizing data management
- Developing analytical capacity
- Strategically applying information and results
Lessons

- Know more about what schools need to use data effectively
- Increasing number of schools are successfully using data
- Challenges involve significant costs, commitment, and organizational change
- One size does not fit all
Remaining Questions

- How do we best minimize burden and maximize usefulness?
- What is needed for sustained use and scale-up?
- What are the optimal models for effective school-level data use?
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http://www.wcer.wisc.edu/mps/

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