Annotated Bibliography

Chapter 8: Using Data

Bernhardt, V. (2004). Chapter 11: Data analysis. In L. Easton (Ed.), *Powerful designs for professional learning* (pp. 111-118). Oxford, OH: National Staff Development Council.

Four sources of data — demographics, perceptions, student learning, and school processes — relate to each other to form a whole that best links to strategies for the improvement of student achievement. A clear rationale precedes 10 specific steps for a day of professional development for school teams. [A CD-ROM included with book provides multiple handouts.] The steps will: 1) help all staff understand what data analysis entails, why it is important, and how it can make a difference; 2) show an example; 3) make lists of the data to gather; 4) set up subcommittees to gather the data; 5) gather the questionnaire data; 6) graph the data; 7) pull the results together in a report; 8) get the staff together to analyze the results; 9) determine what absolutely has to be in the school improvement plan; and 10) implement and follow up on ideas.

This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 9. Collaboration and partnerships; and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (1. Subject knowledge; 2. Needs of learners and teachers for appropriate teaching skills; 4. Variety of classroom-based assessment skills; 5. Integrates new learning; and 7. Periodically assessed for impact on teaching or student learning).

Bernhardt, V. (2004). *Data analysis for continuous school improvement.* Larchmont, NY: Eye on Education, Inc.

As a preface to explaining how to get started with data analysis, the author discusses both the importance of — and the barriers to — using data. The author is recognized as a leader in the field of data analysis, and this book has been described as the author's passage from "good to great." The book's first edition initiated education's data-driven decision-making efforts; this edition presents fresh and relevant field-level information, full of examples that have modified processes to overcome problems. *No Child Left Behind* is integrated into processes and thinking. School teams will find chapters that meet various needs: Getting Started, Demographics, Perceptions, Student Learning, School Processes, Interactions and Analyses, Communicating Results, and Conclusions and Recommendations. The chapters lead groups step by step to achieve objectives. Appendices are filled with examples of helpful forms, questionnaires, and handouts that the author has successfully used.

This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment, 9. Collaboration and partnerships; and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (1. Subject knowledge; 2. Needs of learners and teachers for appropriate teaching skills; 4. Variety of classroom-based assessment skills; 5. Integrates new learning; and 7. Periodically assessed for impact on teaching or student learning).

Deojay, T. & Pennington, L. (2004). Chapter 3: Content: Connecting data, professional development, and student achievement. In L. Easton (Ed.), ***Powerful designs for professional learning*** **(pp. 29-42). Oxford, OH: National Staff Development Council.**

A three-step framework connects data with problem solving and professional development, offering teachers a process to form the link that connects data analysis to instructional change. The goal is to improve student achievement, and the authors demonstrate the framework's role in that improvement, even for disruptive classroom behavior. Teams or individual teachers use the framework to identify three student-focused steps and three teacher-focused actions. The framework cites suggestions for professional development and ways to document and communicate progress.
This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; 8. Communication; and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (1. Subject knowledge; 2. Needs of learners and teachers to use appropriate teaching skills; 4. Variety of classroom-based assessment skills; 5. Integrates new learning; 7. Periodically assessed for impact on teaching or student learning; and 11. Supported by time for collegial learning and professional development).

Guskey, T. (2003). How classroom assessments improve learning. ***Educational Leadership, 60*****(5), 6-11.**

This article offers a necessary rationale for teams as they revisit the importance of classroom assessments. Thomas Guskey explains his assumption that classroom assessment data are superior to the once-a-year test data that rank students. A renowned leader in the field of the evaluation of professional development, the author emphasizes that data use should be for mastery learning, not just to rank students or classes or schools. Teachers can look carefully at how many students know or do not know certain test items; this points toward the corrective instruction needed, allowing teachers to plan ways to present the concept in new ways and to pay special attention to trouble spots.
This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; and 10. Professional development) and New Jersey New Jersey's Professional Development Standards for Teachers (1. Subject knowledge; 2. Needs of learners and teachers for appropriate teaching skills; 4. Variety of classroom-based assessment skills; and 9. School culture for continuous improvement and challenges traditional roles).

Holcomb, E. (1999). ***Getting excited about data: How to combine people, passion, and proof.*** **Thousand Oaks, CA: Corwin Press.**

This book outlines a step-by-step process for teams desiring to improve schools by providing school leaders, parents, and constituents with practical knowledge about how to focus on what schools are about — student learning. Recommended by the Kentucky Department of Education in the Foreword, this book is grounded in the assumption that schools and teachers need a "how-to" manual in gathering and using data to improve learning. Teams can use this book for tools and strategies and helpful hints as they use valuable time for data analysis — a source that will yield increased organizational capacity.

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Johnson, R. (1996). ***Setting our sights: Measuring equity in school change.*** **Los Angeles: The Achievement Council.**

For teams that want to narrow achievement gaps, this book offers a process to follow. The author confronts and seeks to change the reality that schools are not always places where all students experience equal opportunity for success, where schools have too often selected some students to experience the best education while allowing others little more than "leftovers." Since schools want to change the division between the "haves" and the "have-nots," teams can use this book to undergo a process of self-examination informed by careful analysis of data that describe how opportunities to learn are allocated to all students.

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Love, N. (2002). ***Using data/Getting results: A practical guide for school improvement in mathematics and science.*** **Norwood, MA: Christopher-Gordon.**

The author offers processes for teams to follow if they desire to use data to get improved student results. This book opens with the strong statement that it is a guidebook to a different kind of change — one that is not for the faint of heart and requires a willingness to let go of deeply held beliefs and practices if they are not serving all children. The author has a long and distinguished career in the field of professional development to improve mathematics and science. Teams can use this book in all curricular areas, typified by its "Matrix for Using the Guidebook to Investigate 12 Powerful Questions about Your School." Located in Chapter 1, the sample questions provide pages in the book that deal with Narrative about the Question, Data Collection Plan form and its location in book, and Reform in Action Vignette and its page number. Additionally, there is a CD-ROM with the book.

The book processes align with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; 9. Collaboration and partnerships, and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (1. Subject knowledge; 2. Needs of learners and teachers for appropriate teaching skills; 3. Best practices; 5. Integrates new learning; 7. Periodically assessed for impact on teaching or student learning; and 9. School culture for continuous improvement and challenges traditional roles).

Marzano, R. (2003). Using data: Two wrongs and a right. *Educational Leadership, 60*(5), 56-60.

Both the business world and the world of education emphasize the use of data for decision making and Robert Marzano offers a process for teams that desire to avoid mistakes in using data. The author points out two ways that schools can err: 1) Using only indirect measures such as standardized or state-level standards tests and 2) Having no explanatory model to interpret data. This author emphasizes the importance of district-made or teacher-made tests that measure specific courses and suggests report cards to track student performance on specific knowledge and skills. To interpret data, emphasis is on "what works," and a sample from a survey shows ways to identify specific factors that directly affect student achievement.

The process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; 10. Professional development) and New Jersey's Professional Development Standards for Teachers (2. Needs of learners and teachers for appropriate teaching skills; 3. Best practices; 4. Variety of classroom-based assessment skills; 5. Integrates new learning; 7. Periodically assessed for impact on teaching or student learning; and 9. School culture for continuous improvement and challenges traditional roles).

Pardini, P. (2000). Data well done. *Journal of Staff Development, 21*(1), 12-18.

Teams can use the processes described to gain ideas about multiple uses of data and to define types of professional development that are needed. The author provides examples of schools and districts nationwide that use data-based decision making effectively to enhance beginner teacher education, multi-age reading classes, literacy education, tracking of student achievement, ongoing data-driven professional development, and school discipline efforts. Grounded in the assumption that data analysis can improve instruction, the programs share a commitment to putting data at the center of ongoing, collaborative staff development. Teams can use this information for discussion, design, and assessment.

This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; 9. Collaboration and partnerships; and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (2. Needs of learners and teachers for appropriate teaching skills; 3. Best practices; 5. Integrates new learning; and 9. School culture for continuous improvement and challenges traditional roles).

Popham, J. (2003). The seductive allure of data. *Education Leadership, 60*(5), 48-51.

Teams studying the effectiveness of both high-stakes large-scale assessments and seeking to improve teacher-made classroom assessments can focus on an analysis of the five attributes of instructionally beneficial data in this article. Suggestions include disregarding data from any test that does not measure students' attainment of high-level cognitive and content standards, and does not provide sufficiently clear descriptions so that teachers can design focused instructional activities. Recognizing that all assessments are not equal, James Popham provides a list of questions teachers should ask themselves about their classroom will be helpful to teams seeking to improve instruction through improved assessment planning and analysis.

This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (4. Variety of classroom-based assessment skills and 7. Periodically assessed for impact on teaching or student learning).

Schmoker, M. (1999). *Results: The key to continuous school improvement.* Alexandria, VA: Association of Supervision and Curriculum Development.

Teams desiring to find processes for creating opportunities for meaningful teamwork, setting clear and measurable goals, and regularly collecting and analyzing data will like this book. Mike Schmoker's assumption is that tangible, measurable results are the goals to successful school improvement. He explores the conditions under which dramatic results may be achieved and the theory behind them. Examples are given to illustrate successful applications by schools from around the country. Schmoker concludes with the note that, "Schools improve when purpose and effort unite. One key is leadership that recognizes its most vital function: to keep everyone's eyes on the prize of improved student learning." Teams can use Schmoker's work to build the hope and stamina for achieving results.

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Schmoker, M. (2001) *The results fieldbook: Practical strategies from dramatically improved schools.* Alexandria, VA: Association for Supervision and Curriculum Development.

Teams interested in finding processes effectively used by schools to make improvement will like this fieldbook. Mike Schmoker delivers a treasure chest of educational practices that are most apt to make an immediate and profound difference in student learning. Based on the author's book, *Results: The key to continuous school improvement***,** this up-close look at five winning school systems reveals how to use goal-oriented, data-driven teacher collaboration to 1) break achievement records, 2) erase achievement gaps, 3) elevate a school to "world class" status, and 4) make immediate, unprecedented improvements in any school setting. Teams can use actual school examples that include teacher-designed instructional strategies, practitioner perspectives, and process models that fully explain this effective approach to school improvement.

This process aligns with New Jersey's Core Curriculum Content Standards and Professional Standards for Educators (4. Instructional planning and strategies; 5. Assessment; 6. Learning environment; 9. Collaboration and partnerships; and 10. Professional development) and New Jersey's Professional Development Standards for Teachers (2. Needs of learners and teachers for appropriate teaching skills; 3. Best practices; 4. Variety of classroom-based assessment skills; 5. Integrates new learning; 6.

Adult learning and development; 7. Periodically assessed for impact on teaching or student learning; and 9. School culture for continuous improvement and challenges traditional roles).

Schmoker, M. (2003). First things first: Demystifying data analysis. *Educational Leadership, 60*(5), 22-24.

Teams that desire to establish goals from data will enjoy the clarity and brevity of the suggestions here. Mike Schmoker suggests that an individual can start by focusing on two questions: How many of my students are succeeding? And, What are my students' strengths and weaknesses? The assumption is that the answers to these two questions set the stage for the kind of targeted and collaborative efforts that will result in gains in student achievement. Warning against over-analysis, the author touts teachers setting goals and remaining focused on key areas for improvement.

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Wahlstrom, D. (1999). *Using data to improve student achievement: A handbook for collecting, organizing, analyzing and using data.* Virginia Beach, VA: Successline Publications.

This book offers teams a clear, easy-to-use process that agrees with the author's assumption that data can improve student achievement. The book is written by an award-winning educational consultant with many specialties, one of which is in the use of data for improving student achievement. Teams can use the handbook for many strategies and tips, for example, a model for collecting, organizing analyzing, and using data; three types of data — outcome, demographic, and process, and how to use the different types; or a list of data analysis questions to provide direction. Customized, ready-to-use templates and data organizers can make setting up data tables and analysis easy.

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