Technical Guide to

School and District Factors Impacting Student Learning

NSSE

National Study of School Evaluation

Technical Guide to
School and District Factors Impacting Student Learning

The National Study of School Evaluation (NSSE) is a non-profit educational research and development organization founded in 1933 by the regional school accreditation commissions in the United States. NSSE's mission is to provide educational leaders with state-of-the-art resources, tools, and support services to enhance and promote student growth and school improvement through accreditation.

Reference as:
National Study of School Evaluation (2004). *Technical Guide to School and District Factors Impacting Student Learning.* Schaumburg, IL

Related Resources:
Breakthrough School Improvement:
An Action Guide for Greater and Faster Results (NSSE, 2005)

Breakthrough School Improvement:
Resources and Tools (NSSE, 2006)

Accreditation for Quality Schools:
A Practitioners' Guide (NSSE, 2005)

Accreditation for Quality School Systems:
A Practitioners' Guide (NSSE, 2004)

Background

The National Study of School Evaluation was created in 1933 as the research and development arm of the regional accreditation commissions to study key questions about schools and their improvement. In recent years, products and services identified as "research-based and data-driven" were offered in the accreditation and school improvement marketplace. In 2004, the organization recommitted to its stance of rigor in its research base and identified characteristics of NSSE products and services that are described as "research-based":

"A product (service) that is research-based has:

- **research commenced prior to the product's development;**
- **its development significantly shaped by research findings;**
- **advanced or operationalized a theory or theory-based model; or**
- **an explicit statement of the relationship to research findings"**

These characteristics are contrasted with "research-aligned" products and services that are described as:
"A product (service) that is research-aligned has:

- **research identified to support the product after its design**
- **a relationship to research by association**
- **implicit references to alignment with research"**

Purpose of the Technical Report

The purpose of this technical report is to provide information about the research base influencing the development of the following products:

Accreditation for Quality School Systems: A Practitioners' Guide (NSSE, 2004)

Accreditation for Quality Schools: A Practitioners' Guide (NSSE, 2005)

Breakthrough School Improvement: An Action Guide for Greater and Faster Results (NSSE, 2005)

Breakthrough School Improvement: Resources and Tools (NSSE, 2006)

This report is available at no cost to NSSE customers and available as a PDF document at www.nsse.org. Because research continuously informs the work of product development at NSSE, the research base is continually being updated. Customers are urged to look for research updates on the NSSE website at regular intervals.

Purpose and Parameters of the Review of the Research

An ongoing challenge to educators is to find the "silver bullet" that will improve schools—the best tool, talent or technique that boosts performances of students, staff and stakeholders. Though we wish we could identify a single factor that significantly improves achievement, what we know as educators and researchers is that a complex set of factors interact to improve student achievement. The purpose of reviewing the research about student achievement is to be as descriptive as possible about the ideal context of systems and schools that supports continuous improvement of teaching and learning. In doing so, NSSE staff can depend on a solid research base to undergird new product development. NSSE customers can depend on an organization responsive to the increased external demand for research rigor.

Research selected within the scope of this review included factors that directly contribute to student achievement and factors that directly contribute to conditions that influence student achievement--within the scope of the school and school system. Original research findings, research syntheses and meta-analyses were reviewed as well as research from the domains of policy and practice. Research included findings that were derived both qualitatively and quantitatively.

Methodology of the Analysis of Findings

Research findings from diverse sources were annotated and treated as qualitative data. Qualitative data analysis includes data reduction (e.g., finding, managing, reading, and annotating), data display (e.g., categorizing, linking, connecting categories), and conclusion drawing (e.g., corroborating and verifying)[1]. Themes across and within categories of data emerged and allowed the researchers to develop a taxonomy of three primary categories and twenty-nine subcategories of factors impacting student achievement. The factors are not hierarchically ordered within the categories.

To give the taxonomy utility for school improvement, NSSE researchers described the categories as "core tasks" to improve a school system (either a single school or a district or other grouping of schools). The subcategories are described as "effective practices" that contribute to each core task. Five "necessary conditions" have also been identified as important to both the tasks and practices. These "necessary conditions" are currently under study and, though described, will be represented by a subsequent research base.

Description of the Results of the Analysis

The National Study of School Evaluation has identified a number of organizational conditions and effective practices within a school system that can contribute to improved student learning (see Appendix: Summary of Effective Practices).

Necessary Conditions of Improving School Systems

Five necessary conditions for improving school systems provide a solid foundation for continuous improvement of effective practices.

- **Effective Leadership of Systems for Desired Results**—the leader's decisions and practices to support the vision of student learning
- **Policies and Practices to Sustain Improvement**—the school or district's development and implementation of policies and practices that support improvement efforts
- **Resources and Support Systems to Sustain Improvement**—the allocation and deployment of human, technology, and material resources to support improvement efforts
- **Quality Teachers for Desired Results—**the recruitment, placement, and professional development of teachers to achieve the school or district's vision of student learning
- **Quality Information for Desired Results—**the collection, management, and use of information to support the school or district's vision of student learning

Core Tasks and Effective Practices of Improving Schools or Districts

Schools and districts engage in specific tasks and practices that focus and sustain their efforts to improve teaching and learning. The NSSE research indicates that a school or district seeking to improve student learning needs to focus on three core tasks:

- **Ensure Desired Results—**by expecting desired results and monitoring performance
- **Improve Teaching and Learning—**by supporting students in their learning and maximizing teachers' effectiveness
- **Foster a Culture for Improvement—**by developing a learning community and leading for improvement

There are certain effective practices associated with each of the three tasks that, collectively, make them powerful systemic levers for impacting student learning through the process of continuous improvement.

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[1] Miles, M., & Huberman, M. (1994). *Qualitative data analysis : An expanded sourcebook.* Newbury Park, CA: Sage.

Corbin, J., & Strauss, A. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage.

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The Three Core Tasks

and their Effective Practices of Schools and School Districts to Improve Student Learning (NSSE, 2005)

1 Ensure Desired Results

Simply stated, schools and districts ensure desired results for student learning by expecting certain results and then monitoring performance in achieving them. Schools or districts determine what they desire as performance results based on their expectations for student learning. For a school or district to expect and ensure certain results, it must:

- maintain high expectations for student achievement
- implement its vision for student learning through goals and strategies
- maintain a relentless focus on improving student learning which would permeate all levels of the district
- be compelled by a common belief that, collectively, staff and other stakeholders can impact the desired results of the district

In addition, for a school or district to effectively monitor performance in order to produce the results it expects, it will:

- use data to inform decision-making about teaching and learning
- use a comprehensive assessment system to provide feedback for improvement in instructional practices and student performance
- use classroom-based assessments to provide robust measures of students' academic, cognitive, and metacognitive skills
- identify performance targets, indicators, and measures for comparing and improving effectiveness
- take appropriate and timely action to improve areas of identified needs

2 Improve Teaching and Learning

The ultimate goal of the school improvement process is to improve teaching and learning. Schools and districts that support students in their learning:

- maintain systemwide expectations for student learning that reflect academic, cognitive, and metacognitive skills
- deliver on the expectations for student learning through a curriculum that is coherent and rigorous
- align an assessment system with curriculum which is enacted in the classroom through instruction
- support the equitable opportunity of students to learn through individualization and differentiation
- provide student support services and special programs to optimize individual student learning
- support a student learning community that includes student involvement beyond the classroom and that offers a safe environment
- involve families and the community in supporting children as learners

Equally important as supporting students is the system's support for teachers and the practices that maximize teachers' effectiveness. These practices help teachers to:

- use instructional strategies that provide students with focus, feedback, and sufficient opportunities to master skills
- use appropriate strategies to assess the performance of students' academic, cognitive, and metacognitive skills
- adapt instruction to meet individual needs and engage learners
- maximize the use of time for instruction
- create a classroom environment conducive to learning
- optimize technology and multimedia as learning tools

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3 Foster a Culture of Improvement

In addition to ensuring desired results and improving teaching and learning, the NSSE research indicates that schools and districts must cultivate an environment which has improvement embedded in its daily practices. The professional learning community will influence the impact of any improvement initiative. In order to foster a culture of improvement, learning community members:

- share a common vision and goals that have student learning as the focus
- improve individual and collective performance by coming together regularly for learning, decision-making, problem solving, and celebration
- enhance continuously individual effectiveness through inquiry, practice, and peer reflection
- support a culture of collegiality, collaboration, respect, and trust

Leaders of a professional learning community have a unique responsibility to:

- share leadership for the improvement of teaching and learning throughout the school and district
- articulate a compelling need for improvement and provide meaningful ways for the professional learning community to focus on its performance
- engage in practices that support the ongoing improvement of teaching and learning

These twenty-nine effective practices all contribute to the three core tasks of a district that is focused on improving teaching and learning.

Description of the Research Base

Core Task: Ensure desired results by expecting desired results and monitoring performance

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Core Task: Foster a culture for improvement by developing a learning community and leading for improvement

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Five Necessary Conditions

for improving school systems provide a solid foundation for continuous improvement of effective practices:

1. **Effective Leadership of Systems for Desired Results—** the leader's decisions and practices to support the vision of student learning

2. **Policies and Practices to Sustain Improvement—**the school or district's development and implementation of policies and practices that support improvement efforts

3. **Resources and Support Systems to Sustain Improvement—**the allocation and deployment of human, technology, and material resources to support improvement efforts

4. **Quality teachers for Desired Results—**the recruitment, placement, and professional development of teachers to achieve the school or district's

5. **Quality Information for Desired Results—**the collection, management, and use of information to support the school or district's vision of student learning

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The Three Core Tasks

and their Effective Practices of Schools and School Districts to Improve Student Learning

1 Ensure Desired Results

Expect Desired Results:

- implement its vision for student learning through goals and strategies;
- maintain high expectations for student achievement;
- maintain a relentless focus on improving student learning which would permeate all levels of the district; and
- be compelled by a common belief that, collectively, staff and other stakeholders can impact the desired results of the district.

Monitor Performance:

- use data to inform decision making about teaching and learning;
- uses a comprehensive assessment system to provide feedback for improvement in instructional practices and student performance;
- uses classroom-based assessments to provide robust measures of students' academic, cognitive, and metacognitive skills;
- identify performance targets, indicators, and measures for comparing and improving effectiveness; and
- take appropriate and timely action to improve areas of identified needs.

2 Improve Teaching And Learning

Support Students in their Learning:

- maintain district-wide expectations for student learning that reflect academic, cognitive and metacognitive skills;
- deliver on these expectations for student learning through a curriculum that is coherent and rigorous;
- align an assessment system with curriculum which is enacted in the classroom through instruction;
- support the equitable opportunity of students to learn through individualization and differentiation;
- provide student support services and special programs to optimize individual student learning;
- support a student learning community that includes student involvement beyond the classroom and that offers a safe environment; and
- involve families and the community in supporting children as learners.

Maximize Teachers' Effectiveness:

- use instructional strategies that provide students with focus, feedback and sufficient opportunities to master skills;
- use appropriate strategies to assess the performance of students' academic, cognitive and metacognitive skills;
- adapt instruction to meet individual needs and engage learners;
- maximize the use of time for instruction;
- create a classroom environment conducive to learning; and
- optimize technology and multimedia as learning tools.

3 Foster a Culture For Improvement

Develop a Learning Community:

- share a common vision and goals that have student learning as the focus;
- improve individual and collective performance by coming together regularly for learning, decision-making, problem solving, and celebration;
- enhance continuously individual effectiveness through inquiry, practice, and peer reflection; and
- support a culture of collegiality, collaboration, respect and trust.

Lead for Improvement:

- share leadership for the improvement of teaching and learning throughout the district;
- articulate a compelling need for improvement and provide meaningful ways for the professional learning community to focus on its performance; and
- engage in practices that support the ongoing improvement of teaching and learning.

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