



Improve Schools With Empowerment Based Models

by **John E. Westfall, James W. Peltier and Joseph Sheehan**

Since passage of the federal No Child Left Behind Act (NCLB) Act, the majority of principals in public schools have embraced some type of quality improvement planning for increasing student achievement.¹

Their motivation is due partially to the fact that

In 50 Words Or Less

- **School administrators have been slow to adopt quality practices.**
- **Best practice research led to use of an enhanced logic model for quality planning in a large Wisconsin school district.**
- **The model resulted in a three-phase initiative to improve curriculum and change classroom practices.**

NCLB mandates rigorous improvement planning for schools that do not meet threshold scores in reading and math. Significantly, schools are required to use research based approaches in their school improvement planning, pointing the attention of principals and school district administrators toward relevant research literature.

Despite the undeniable need to use school quality improvement planning mandated by NCLB, most principals have been slow to adopt current and sophisticated quality practices, particularly when compared to administrators in the public and private sectors of social services and healthcare.

One indication of this lagging adoption is the late entry of the education sector into the Malcolm Baldrige National Quality Award. Only three school districts have received the award since the segment's entry, compared to 10 service businesses over the same period. Clearly, we need more conceptual and empirical research on which principals can build their quality planning initiatives.

The school improvement literature clusters in three areas, yet all are substantially prescriptive approaches.^{2,3} In most cases, principals adopt—or

in some cases purchase—an approach, handing down the “what” and “how” of quality improvement to the teaching staff.

Unfortunately, the literature is replete with examples of how top-down approaches for quality improvement have failed to produce desired learning outcomes. It brings to mind the expression, “To a child with a hammer, everything is a nail,” in that many principals see only prescriptive rather than vision sharing approaches to quality improvement.

There are, however, a small but growing number of thoughtful educators advocating more empowerment based models. These models promote collaboration, mutual understandings and researched based consensus about what quality education is.

One vision sharing approach with broad applications across public education is called the enhanced logic model for quality planning (see Table 1).

District Planning Example

This case study examines the Sheboygan Area School District (SASD) in Wisconsin, a district of about 10,000 students and 840 teachers. In many ways, SASD is a microcosm of school districts across the United States and thus a good case for testing quality improvement strategies and methods.

SASD has relatively large minority and economically disadvantaged populations. Student achievement scores districtwide, while near the state average, have remained flat. Teachers’ philosophies toward teaching vary extensively, yet these differing approaches are accepted within the fiercely independent structure of schools and classrooms. Because of this diverse environment, it was unlikely staff (or students and parents) would voluntarily adopt a

highly prescriptive initiative for quality improvement.

A districtwide discussion of quality improvement started in December 2003 and concentrated on best practices from the effect-size research of school improvement, a common index for measuring student achievement in quasi-experimental designs.

This effect-size literature documents about 8,000 quasi-experimental designs from the past 40 years. Each study reports the measurable impact or effect-size a specific change in school practice had on student achievement. R.J. Marzano’s meta-analysis reviews these major studies.⁴

Effect-size is the difference between the experimental and control group means divided by an estimate of the population standard deviation. Therefore, it expresses the differences between group means in a standardized or Z score structure. (See the outer ring of Figure 1 for examples of effect-sizes.)

A larger effect-size of 1.0 or 1σ is equal to about 30 percentile points toward the middle of the distribution on standardized tests. In other words, implementing a larger effect-size practice in a school would likely raise the average score of students scoring at the 50th percentile to approximately the 80th percentile. Nevertheless, most studies yielded smaller (~0.2) or even negative effect-sizes.

Enhanced Logic Model

The process for developing and deploying best practices into the classroom was set into an enhanced logic model. A logic model is a visual representation of a quality improvement process that explicitly links outcomes (desired changes in student cognition, attitudes or behavior) with resources, activities and products.⁵

TABLE 1 Enhanced Logic Model for Quality Planning

Inputs	Methods and activities	Outputs	Outcomes	Indicators	Interventions
Stakeholders and research literature (see Figure 1).	The research-pyramid approach, collaborative techniques used for building understandings and consensus from the ground up.	Quality improvement cycle for student achievement. Districtwide and school based action plans.	Explicitly identifying what a student should know, feel or do by subject area and grade level for increasing student achievement.	Making certain each student knows, feels or does the explicit outcome by using valid common assessments across subject areas and grade levels.	Arranging in advance what to do when a student doesn’t know, feel or do the explicit outcome by using school hour interventions, in contrast to after school or summer ones.



The enhanced logic model adds indicators and interventions. Although logic models are increasingly used within other service disciplines, principals and other school management decision makers have not adopted them.

Initiating a districtwide improvement campaign in January 2004, an ad hoc steering committee employed the enhanced logic model for quality planning in Table 1 to detail a quality planning schedule, which included a set of larger effect-size or quality improvement strategies as inputs to the process.

Inputs

Inputs or resources included staff, planning time and the quality improvement literature for schools (see Figure 1). This literature was used to prompt group discussions and surveys. Journal articles about the quality strategies were distributed to all stakeholder groups prior to the discussions.

These discussions included four major groups and centered on the five larger effect-sizes listed in Figure 1, which became the prime inputs to the quality improvement plan. Thus, the plan was built through consensus of what would constitute quality education within and between groups.

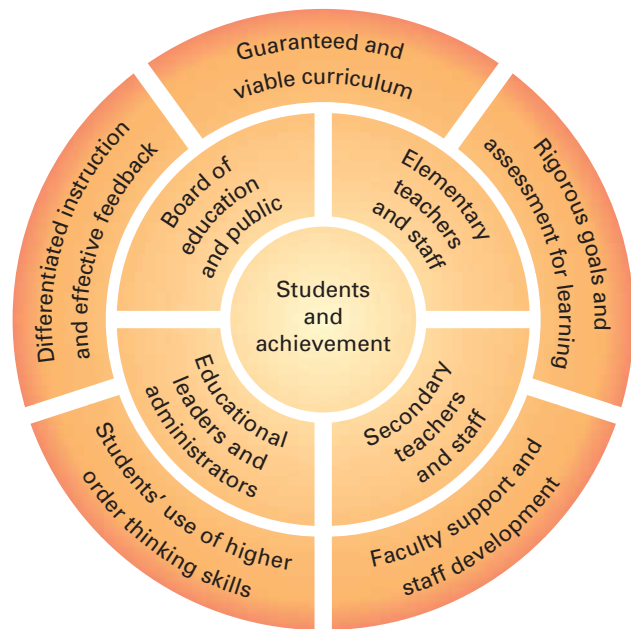
The consensus strategies included a guaranteed and viable curriculum, or one in which students learn essential content and are given the time they need to learn it. Rigorous goals and assessments for learning include a depth of essential content, not simply coverage of topics, and common districtwide assessments useful in guiding such depth of instruction.

Faculty support and staff development comprise an empowerment based approach, providing needed resources to teachers. Students' use of higher order thinking skills, such as reasoning and analysis, are classroom practices that build cognitive skills around the essential content. Differentiated instruction and effective feedback demonstrate teaching differing students in different ways to motivate them and increase individual achievement.

Methods and Activities

The approach used for any specific quality improvement initiative depends on such factors as the organization's environment and culture, the

FIGURE 1 Inputs for Student Achievement And Educational Quality



staff's level of understanding regarding best practices and a wealth of other organization specific matters. As such, no single set of methods and activities exists that matches or is appropriate for all scenarios. Instead, the philosophy adhered to for any quality improvement project should be organization specific.

Within SASD, these considerations had to provide multiple opportunities for staff engagement and maximum facilitation for consensus building. The process had to be completely open, inclusive and transparent. The ad hoc steering committee chose the research-pyramid approach as a framework of methods for meeting these various goals.⁶

The research-pyramid approach (see sidebar on p. 60 for more information) is a mixed methods design using qualitative and quantitative techniques and rooted in the belief that extensive exploratory or qualitative research must first be conducted and foundations established before more generalizable specific quantitative/descriptive research efforts can be undertaken.^{7,8}

TABLE 2 Stages of Collaboration by Stakeholder

Stakeholders	Discussions	Survey	Focus groups	Survey	Prioritize best practices	Align priorities with resources	Draft quality improvement cycle and action plans
Dates	January to March	April	May	May	May	June	June
Board of education	●						
Superintendent	●	●		●	●	●	●
Executive team				●		●	
Principals	●	●	●	●	○		○
Coordinators	●	●		●	○		○
Department chairs	●	●		●	○		○
Teachers' union			●	●			○
Classified staff union				●			○

- All group members.
- Selected representatives.

The qualitative stage is designed to:

- Obtain insight from key publics within and outside the organization.
- Generate a deeper understanding of important quality issues.
- Identify question content areas to include in the survey stage.

These publics, represented by key informants, are believed to have insight critical to furthering the data collection process and are queried for understanding the above goals. Such conversations are additionally useful because they provide staff the opportunity to participate in the quality initiative and build consensus within the organization. In this way, the process becomes a social as well as research activity. Focus groups are also crucial for identifying the most important quality issues to address in the subsequent quantitative research.

The qualitative stage provides the foundation for the descriptive survey. The survey results may be used for establishing baselines that can be generalized to the overall population. Moreover, findings are valuable for developing effective and efficient long-term quality improvement plans that have initial buy-in from stakeholders.

In practice, a series of group discussions and

surveys were conducted with each group using the five larger effect-sizes as prompts. These examined quality practices teachers should continue, enhance or add vs. practices teachers should reduce or cut. As shown in Table 2, the series included:

- Initial informal discussions.
- Six districtwide focus groups with 80 educational leaders.
- Focus groups with all teachers at each school.
- A qualitative survey of all staff.
- A quantitative survey of educational leaders.

This collaborative data collection process took about 1,450 hours of staff time over the spring semester and represented less than two hours per teacher. Moreover, the actual quality plan rearranged underutilized time so teachers could work on curriculum improvement teams. Each teacher received 16 hours per semester for working on curriculum teams, which represented an eight-fold return on the time invested in planning.

A qualitative survey of all staff resulted in about 500 respondents and 270 pages of transcript containing about 6,000 comments. A content analysis reduced the transcript to a set of 242 classroom practices staff suggested be continued, enhanced, added, reduced or cut.



A quantitative survey of educational leaders examined about 70 classroom practices. The input variables (classroom practices) were regressed against the output variable, “I believe these strategies/practices will greatly improve student achievement.” The results of this analysis confirmed strong predictive validity with an R^2 of 0.833. Educational leaders then recommended an explicit set of classroom practices for increasing student achievement.

Next, a representative districtwide team of 25 took all results and reduced them to a set of 76 action priorities (enhance, add, reduce or cut). The priorities revolved around best practices, which were incorporated into the quality improvement cycle.

Outputs

The primary output or product from this collaboration was the SASD quality improvement cycle for student achievement, a three-phase initiative for continuously improving curriculum and changing classroom practices. The phases of the cycle are linear, but tasks within each phase are not necessarily sequential. Staff consensus viewed completion of the cycle as likely to result in large increases in student achievement.

The SASD quality improvement cycle for student achievement includes steps to:

1. Align standards and benchmarks and integrate them into classroom practices.
2. Align essential benchmarks and skills, big ideas (also known as essential questions), proficiency levels and common classroom assessments throughout the district and integrate them into instructional practices.
3. Create or revise course content and create or revise standards based report cards.

Some definitions are important at this point:

- **Academic standards** are issued by each state and include what students should know and be able to do and what schools are expected to teach.
- **Benchmarks** translate standards into developmentally appropriate grade-level learning outcomes.
- **Proficiency** is an acceptable level of student performance based on criteria (guidelines,

rules or principles).

- **Unpacking** is a set of techniques used to articulate and ensure the alignment or validity of the standards, benchmarks and proficiency criteria.
- **Common classroom assessments** are valid measures of the essential benchmarks and skills.

In fact, these concepts are similar to those used in other quality models, although the educational terms may be quite different.

Example With Outcomes

Now a concrete example. One of about 36 Wisconsin eighth grade math standards says, “Students will use reasoning abilities.” Previously, the math staff unpacked the standard by drafting benchmarks, which included one saying students will demonstrate estimating skills in recognizing the reasonability of an answer and defend their work in a variety of ways—for example, written, oral or charts.

Staff is now articulating proficiency criteria and developing rubrics or scoring guides for measuring student performance against the proficiency. Next, they will develop assessments to determine each student’s level of proficiency as measured against the rubric. Finally, staff repeats this cycle of curricular development for each standard (there are about 500), grade level and subject.

These are not quick fixes. Increasing student test results through meaningful school improvement initiatives takes at least several years. However, the most recent state testing results (currently embargoed) show SASD increases across most grades and subject areas. Significantly, in *Report on the No Child Left Behind (NCLB) Act, Year 3*, the Center on Education Policy concluded SASD seemed to be producing positive achievement results, particularly in narrowing the gap between differing student groups.⁹

Additionally, in its first year of implementation the district has shown encouraging results by meeting all its initially targeted outcomes. Subject area and grade level teams have conducted their self-assessments and begun executing their individual quality improvement action plans.

Staff and parents have responded positively,

Research-Pyramid Approach

The research-pyramid approach has been used successfully within hundreds of organizations and across most industry segments. The following is an example of its use within the nonprofit sector.

Project Description

The social services problems in Sheboygan County, WI, are complex. There are many client groups and service providers and a vast array of community perceptions on needs and problems.

A community needs assessment was conducted to gather as much information from a broad range of possible perspectives. This approach ensured all perspectives were represented to the greatest extent possible, and the collection of valid data would provide better information for decision making.

The Sheboygan Area United Way wanted information with which to guide funding and other decisions, but an important secondary effect of the community needs assessment process was to develop good relationships with the major stakeholders. To begin, stakeholder groups were identified and classified into three general segments: donors, providers and clients.

Research Tools

These included:

- A community VIP steering committee.
- Key informant interviews and focus groups with educators, clergy, funded agencies and non-funded agencies, health-care professionals, minorities, social services personnel, government/law enforcement personnel, area business leaders and residents.
- Questionnaires sent to a large-scale sample taken from key publics.

Use of Findings

The needs identified and prioritized in the study were used to set the framework for funding allocations.

Communication

It was essential the publics understood the United Way was interested in their perspectives and needs, would be listening to their concerns, would be involving them in the process and, most important, would act upon the data once it was collected.

Thus, the effect of the community needs assessment process was

to improve public relations with the community and provide a positive image of the United Way as an effective and responsive organization.

The results were communicated to all key publics including the local media. Meetings were also held to convey the findings to key constituency groups. (Additional information about the study, including reports, are available online at www.sauw.org.)

Outcomes

The allocations committee of the United Way has since directed funding toward programs that address the highest priority needs. The committee has begun a system with all funded agencies of outcome measurement with semiannual reporting. All future funding will be based on the needs assessment and the outcome measurement reporting.

Furthermore, in the most recent campaign following the study, donations increased about 20% from the previous year. This was especially noteworthy in a year in which donations across the United States were flat to declining.



with about 420 teachers (50%) having volunteered to work on districtwide quality improvement teams. This is clear demand based evidence of initial success, deployment and engagement across staff and parents.

Of special note, there were no additional costs or time for the planning or initial implementation. Besides, the district has made a financial commitment to quality improvement. In future years, as needs are more clearly identified, resources will be allocated through the district's budgeting process.

It is at the intermediate and long-term stages that increases in student test scores are expected. As the district continues to work through the cycle, it will build its student achievement and other databases, using these to longitudinally model academic growth by subject area and grade level and thus target resources as needed.

The superintendent, principals and teachers continue monitoring and adjusting the quality improvement action plans each semester. Department and grade level teams continue analyzing the results from agreed on common assessments to adjust instruction and provide students with meaningful feedback.

Finally, building-level teams continue articulating a targeted sequencing of interventions for students who are not achieving or need to enhance their learning. Comparatively, this process is similar to those used in healthcare by physicians and administrators when collaboratively drafting common diagnostic and treatment protocols for quality improvement.

The following conclusions are currently supportable:

- The quality improvement model can be replicated by other school districts.
- There is evidence broad collaboration between groups helps build a quality focused environment.
- Initial incremental costs are low.
- The initiative deserves its place in the quality improvement literature.

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