

# **Maine's Improving Schools**

## **An Examination of Distinguishing Features of a Sample of Maine's Improving Public Schools**



**Maine Education Policy Research Institute - 2013**

**Erika K. Stump**

**David L. Silvernail**

**Catherine Fallona**

**Lori Moran Gunn**



UNIVERSITY OF  
**SOUTHERN MAINE**

Center for Education Policy,  
Applied Research, and Evaluation

Published by the Maine Education Policy Research Institute in the Center for Education Policy, Applied Research, and Evaluation (CEPARE) in the School of Education and Human Development, University of Southern Maine.

CEPARE provides assistance to school districts, agencies, organizations, and university faculty by conducting research, evaluation, and policy studies.

In addition, CEPARE co-directs the Maine Education Policy Research Institute (MEPRI), an institute jointly funded by the Maine State Legislature and the University of Maine System. This institute was established to conduct studies on Maine education policy and the Maine public education system for the Maine Legislature.

Statements and opinions by the authors do not necessarily reflect a position or policy of the Maine Education Policy Research Institute, nor any of its members, and no official endorsement by them should be inferred.

The University of Southern Maine does not discriminate on the basis of race, color, religion, sex, sexual orientation, national origin or citizenship status, age, disability, or veteran's status and shall comply with Section 504, Title IX, and the A.D.A in employment, education, and in all other areas of the University. The University provides reasonable accommodations to qualified individuals with disabilities upon request.

This study was funded by the Maine State Legislature, and the University of Maine System.

# TABLE OF CONTENTS

<b>ACKNOWLEDGMENTS</b>	<b>1</b>
<b>EXECUTIVE SUMMARY</b>	<b>2</b>
<b>OVERVIEW</b>	<b>3</b>
<i>BACKGROUND</i>	<i>3</i>
<i>PHASE I: A STUDY OF MAINE'S MORE EFFICIENT SCHOOLS</i>	<i>4</i>
<i>PHASE II: A STUDY OF MAINE'S IMPROVING SCHOOLS</i>	<i>6</i>
<b>STUDY METHODOLOGY</b>	<b>7</b>
<i>DEFINING IMPROVING SCHOOLS</i>	<i>7</i>
<i>SELECTING CASE STUDY SCHOOLS</i>	<i>8</i>
<i>CONDUCTING CASE STUDIES</i>	<i>9</i>
<b>STUDY FINDINGS</b>	<b>12</b>
FIGURE 2. PROGRESSIVE COMPONENTS OF IMPROVING SCHOOLS	14
<i>CATALYST FOR CHANGE</i>	<i>15</i>
SELF-ASSESSMENT WITH STANDARDIZED DATA AND INFORMATION	15
INCREMENTAL CHANGE	16
<i>TRANSFORMATIONAL LEADERSHIP</i>	<i>17</i>
AN EXPLICIT PLAN	19
THOUGHTFUL USE OF DATA	20
ACCOUNTABILITY	20
COLLECTIVE, DELIBERATE WORK	21
<i>ACADEMIC FOCUS</i>	<i>22</i>
IMPLEMENTING AND EVALUATING EFFECTIVE PRACTICES	23
USE OF TIME	24
STUDENTS AND EDUCATORS INVIGORATED BY LEARNING	27
<i>CONCLUSION</i>	<i>28</i>
<b>REFERENCES</b>	<b>30</b>
<b>APPENDIX A: CLASSROOM OBSERVATION PROTOCOL</b>	<b>31</b>

## ACKNOWLEDGMENTS

The research teams would like to thank the schools and staff members who participated in this study. Conducting case studies and pilot site visits was essential to uncovering the unique characteristics of Maine's Improving Schools. School administrators, teachers, and staff in each school gave freely of their time and expertise. It was heartening and affirming to see the dedication of these educators to providing a strong education to Maine's students. The schools that participated in the study are:

Bristol Consolidated School  
Carl J. Lamb School  
Ellsworth High School  
Enfield Station Elementary School  
Hampden Academy  
Jordan Small School  
Massabesic High School  
Milbridge Elementary School  
Narraguagus High School  
Noble Middle School  
Searsport District High School  
Skowhegan Area High School  
Solon Elementary School  
Vassalboro Community School  
Village Elementary School  
Warsaw Middle School

Without the assistance of these schools the study would not have been possible. Thank you.

The research teams would also like to thank the Maine Legislature, and in particular the members of the Joint Standing Committee on Education and Cultural Affairs, and the University of Southern Maine for their financial support of this research study.

## EXECUTIVE SUMMARY

The goal of this study was to identify distinguishing characteristics of a sample of Maine's improving schools. From the initial phases of data collection, it was evident that the findings of this study would diverge from many theories seen in literature review regarding improving schools in the United States. Much of this existing literature focuses on large, urban schools with historically low performance that led to a quick "turnaround" strategy to impact culture and achievement in a few years. A majority of Maine's districts, schools and students live in rural communities. While many large, urban improving schools also deal with extraordinary poverty and socioeconomic barriers for students to demonstrate academic achievement, literature suggests that rural schools and rural students are reported as facing greater challenges in their work to be college-read and career-ready.

While there is limited existing research exclusively on rural schools, some commonly cited practices of improving rural schools include increased teacher training and professional development, greater resource access, enhanced leadership, more community involvement and targeted curriculum development. These characteristics could also be seen developing within Maine's Improving Schools. This study suggests that many Improving Schools in Maine had periods of time when student achievement had been significantly below the state average. Then, in most cases, improvement was a gradual, intricate process. This progression did not usually encompass massive personnel changes and rarely reflected the "visible changes" and "quick wins" such as those seen in urban "Turnaround Schools."

A deeper analysis of the schools in this study revealed three interconnected components that distinguished the journey of Maine's Improving Schools: *Catalyst for Change*, *Transformational Leadership* and *Academic Focus*. The components of Improving Schools in Maine are individually important as described in the following sections of this report but seem to result in the most significant improvement in student achievement when they are implemented in combination with each other. There appeared to be a developmental and progressive nature of the improvement. For example, a catalyst can jumpstart the process for self-reflection within a school, then transformational leaders translate a readiness for change into a vision and plan for improvement. As staff implements effective practices that move the school toward an academic focus, leadership is constantly refining their methods to build a culture of sustained improvement. Even when a higher performing school has been designated as More Efficient, as in Phase I of this study, it must ensure that the components of Improving Schools are maintained. Therefore, the Intellectual Work, Equity and Efficiency characteristics of More Efficient Schools work together with Transformational Leadership and Academic Focus components of Improving Schools to continue Maine's schools on a successful path.

## OVERVIEW

In 2010, at the request of the Maine state legislature, the Maine Education Policy Research Institute (MEPRI) at the University of Southern Maine (USM) began a multi-year study of two sets of schools in Maine. One set of schools was unique because they were found to be examples of More Efficient Maine schools. The second set were unique because they were examples of Improving schools, schools on their way to becoming more efficient.

Following a summary of the findings from the study of some of Maine's More Efficient schools, this report provides a summary of the findings from the study of a sample of Maine schools classified as Improving. This report will describe the methodology used in identifying examples of Maine's Improving schools, the case study strategies used in examining these schools, and the findings of their distinguishing features.

## BACKGROUND

In 2011, Boser remarked, "*The economic downturn has dramatically changed the fiscal climate for schools and districts, and our education system is about to enter a time of profound fiscal austerity. Schools will be pressed to stretch their education dollars further for years, perhaps decades.*" Although there is ample evidence here in Maine, as well as nationwide, that this statement is still true today, it unfortunately is only half of the story. To prepare our students to compete effectively in the global economy requires that all our schools be high performing as well as efficient, a goal that has alluded us for decades. Despite a three-fold increase in spending by Maine's taxpayers over the past 50 years, student performance has remained fairly flat.

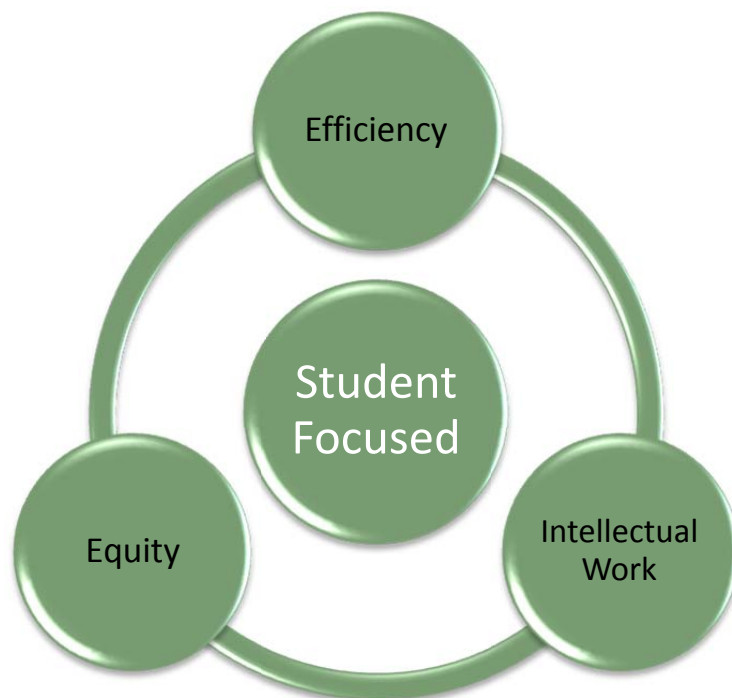
In recognition of this two-pronged problem, the Maine legislature asked the Maine Education Policy Research Institute (MEPRI) to undertake a study of Maine's schools that were defying the odds. Despite tough economic times these schools were using their resources efficiently to produce higher student performance. MEPRI is a non-partisan policy research institute jointly funded by the Legislature and the University of Maine System (UMS), designed to conduct targeted research studies for Maine's policy makers. In requesting this study the Maine legislature's goal was to not only identify areas which may need action by policy makers, but also to provide examples of schools that may lead the way for other Maine' schools to become higher performing and more efficient in the future.

## PHASE I: A STUDY OF MAINE'S MORE EFFICIENT SCHOOLS

Phase I of the two-part study entailed an examination of a sample of Maine's More Efficient Schools. More Efficient Schools were defined as schools that exhibited higher student academic performance and a higher return on spending. An analysis of three years of student performance data on the statewide, standardized achievement tests resulted in the identification of 90 Maine elementary, middle and high schools that were classified as More Efficient. Teams of researcher conducted case studies of 16 of these schools, in addition to nine case study schools deemed to represent typical performance.

The case study evidence confirmed many findings reported in other national and international studies of higher performing schools. More Efficient Schools were more consistent in their high expectations and high standards and implemented more rigorous curricula with engaging instruction. In addition, More Efficient Schools had good leadership and supportive school cultures.

A deeper analysis of the evidence also revealed that in the More Efficient Schools these features came together to form a distinctive culture: a culture that is more than the sum of the individual parts, and consists of features that cut across and encompass the categories of characteristics found in earlier studies. What we found to be unique among the More Efficient Schools is **a singular, sustained focus that places students and their intellectual development at the center of all work.** See Figure 1 below.

**Figure 1. Distinctive Features of More Efficient Schools**

More Efficient Schools are student-focused learning communities in which there is systemic evidence of:

A) Intellectual Work:

- i. Students engage in intellectual work that involves academic knowledge and skills as well as social and behavioral learning.
- ii. Adults engage in intellectual work to create instructional practices, curricula, professional learning programs, and leadership roles that improve student performance and are informed by assessment and experience.

B) Equity:

- i. Teachers and leaders believe they have a moral obligation to focus on the intellectual development of students as a means towards a better world.
- ii. High standards and high expectations are held for all members of the school community.

C) Efficiency:

- i. Human and financial resources are used efficiently to maximize learning opportunities for students and staff.



These three features come together in the More Efficient Schools to create a learning community that was student-focused and systemically engaged in intellectual inquiry. We found that in these schools, all students were demonstrating progress in their intellectual development and academic achievement.

Other crucial practices we identified in More Efficient schools included all students having access to a wide variety of learning experiences throughout the school day, including remediation and enrichment. There was also ample evidence of high expectations and high standards and the use of multiple assessments in assessing progress in learning. As well, teachers and leaders were actively engaged in creating a school culture that helped students acquire more and more responsibility for their own learning. These schools were also promoting and supporting this intellectual development in cost efficient ways. They were providing their community, parents, and students a higher return on spending and were getting “a bigger bang for their buck.”

More detailed discussions of these findings appear in the report entitled *More efficient Public Schools in Maine: Learning Communities building the Foundation of Intellectual Work*, which is available at [www.usm.maine.edu/cepare](http://www.usm.maine.edu/cepare).

## PHASE II: A STUDY OF MAINE'S IMPROVING SCHOOLS

As part of phase I of this study, MEPRI researchers shared the findings with various educational leaders, practitioners, policymakers and community members across Maine. There was significant support for the work and many valuable discussions. One of the most common questions that arose in these conversations was "How does a school *become* More Efficient?" Understanding the journey to becoming a More Efficient School was clearly a critical piece of helping Maine schools. Therefore, MEPRI conducted Phase II: A Study of Maine's Improving Schools. Phase II of the study is discussed in detail in the following sections of this report.

## STUDY METHODOLOGY

### DEFINING IMPROVING SCHOOLS

Phase II of the study has been an examination of a sample of Maine's improving schools. Improving Schools were defined as schools that exhibited growth in student performance over a four-year period of time. More specifically, an elementary school is designated as improving if it meets *the first four* of the following criteria in the evaluated grades, grades 4 or 8; a K-8 school is designated as improving if it meets the first four of the following criteria in both grades 4 and 8. A high school is designated as improving if it meets *all five criteria* in the evaluated grade, grade 11:

1. The average standardized difference between the cumulative scale score on the state exams (MEA, NECAP, or MHSA) and the state average is higher in the most recent two years than in the prior two years.
2. The average standardized difference between the cumulative scale score on the state exams and the score that would be predicted based on pupil characteristics and student scores in previous grades is higher in the most recent two years than in the prior two years. (Note: In grade 4, the predicted score is based only on pupil characteristics, not student scores in previous grades.)
3. The average standardized difference between the percentage of pupils at or above the "Meets" proficiency level and the state average is higher in the most recent two years than in the prior two years.
4. The average standardized difference between the percentage of pupils at or above the "Partially Meets" proficiency level and the state average is higher in the most recent two years than in the prior two years.
5. For high schools, the average standardized difference between the four-year graduation rate and the state average is higher in the most recent two years than in the prior two years.

The analysis of school-level performance data for all Maine schools over a four-year period of time resulted in the identification of 121 schools as Improving. Table 1 reports the schools evaluated and those identified as improving by grade configuration. Some Maine schools were not able to be evaluated due to limited student enrollment, lack of usable data or a grade configuration that did not include statewide assessments (for example, K-2).





**Table 1. Improving Schools in Maine\***

School Level	Schools Evaluated	Improving
PK-8	91	7 (7.7%)
Elementary Schools (PK-5)	215	74 (34.4%)
Middle Schools (5-8)	85	25 (29.4%)
High Schools (9-12)	108	15 (13.9%)
<b>Total</b>	<b>499</b>	<b>121 (24.2%)</b>

\* Designations based on a four-year period (2006-2010).

### SELECTING CASE STUDY SCHOOLS

From the total number of Improving schools summarized in Table 1, eleven schools were selected for case studies. These schools were selected to include various enrollment sizes, grade level configurations, and free/reduced lunch rates, past achievement levels, community demographics and geographic locations:

-  Enrollment sizes: approximately 80 to 1,020 students,
-  Grade configurations: PK-5, K-6, K-8, 5-8, 9-12.
-  Rates of students eligible for free/reduced: 30% - 98%.
-  Site visits locations (by county): Cumberland, Lincoln, Somerset, Washington, Waldo, and York.

In addition, case studies were also conducted in three Typical Schools serving grades PK-5, K-8 and 6-8. Typical schools were defined as schools that exhibited inconsistent or no growth in student performance over a four-year period of time with all other demographic and geographic characteristics being similar to the range found within Improving case study schools. A few of these case study schools (both Typical and Improving) had experienced leadership and/or budgeting changes related to the 2008-2009 district consolidation measures in Maine, but many case study schools reported only minimal changes.

An initial sample of fourteen schools was invited to participate in the study. Conversations were held with the superintendents of each school district, and once the superintendent agreed to participate in the study, researchers conducted preliminary interviews

with building level principals. One originally selected school did not participate due to the timeline necessary to complete site visits. An alternate school was identified, and the same procedure was repeated with this school's superintendent and principal. The alternate school was selected to mirror demographic characteristics of the original sample schools.

## CONDUCTING CASE STUDIES

Once the case study schools were selected and participation agreements had been established with the district superintendents, the research team began the process of gathering data from the fourteen schools. Teams of two or three researchers conducted site visits of two days in duration. Each team included two or three researchers, all of whom had extensive knowledge and experience working in and with public schools in Maine.

Two More Efficient schools were selected as pilot sites. Conducting the one-day case studies and site visits in these schools was an opportunity to test the study protocols and procedures as well as refine the study instruments for their level of validity in capturing characteristics of both Improving and More Efficient Schools. The research teams were provided with feedback from members of the pilot schools' communities and addressed clarifying questions from members of the research team who did not visit the schools. These insights led to a few revisions in the site visit protocols and field practices.

The study began with case studies of Improving High Schools in Maine. Five improving high schools were identified as meeting the criteria of Improving Schools in Maine and reflecting a range of performance levels as well as geographic, demographic and enrollment size profiles to be representative of Maine high schools. These schools were visited in the spring of 2012, and a report of Improving Maine High Schools was shared with the Maine Legislative Committee for Education and Cultural Affairs in summer 2012. In this report, all fourteen PK-12 case study schools are incorporated into findings and analysis unless otherwise noted.

Prior to each site visit, researchers collected and analyzed documents relevant to the school (e.g. curriculum maps, course schedules, school handbooks, district policies, assessments, student work, school and district websites, related community publications, etc.). An interview with the building principal was then conducted to gather preliminary school information and develop a working schedule for the school site visit. During the site visits, multiple individual and focus group interviews were conducted. In addition, researchers conducted numerous 3-5-minute classroom observations and recorded notes and descriptive data electronically with an internally developed protocol (See Appendix A).

*An approximate total of 200 interviews and 525 classroom observations were conducted in the case study schools.*

Researchers also kept copious notes throughout the site visits regarding their informal observations, spontaneous conversations, and focus group discussions. This data was referenced and shared among the researchers throughout the visit to identify areas or subjects that needed further information, which was often gained in the focus groups or observations of the second day of the site visit. All focus group discussions and formal interviews were recorded in audio form.

During the site visit, the research team members debriefed with each other at the end of the first day to compare evidence and to identify those areas that would benefit from further observation or inquiry on the second day of the site visit. These debriefing sessions were used to revise schedules for the second day of the visit as well as to identify needed follow-up conversations to triangulate information or to learn more about specific school practices.

Following the site visit to each of the case study schools and before the researchers began the formal cross-case analysis of the data, the team prepared a 6-10-page descriptive report for each school. These reports were designed to provide the school's staff with a summary of what the teams observed during their site visits. This information was designed to be descriptive in nature and to provide feedback on evidence found regarding characteristics of More Efficient and Improving Schools. These reports were checked for accuracy by the school principal then shared with school and district administrators with encouragement to use it as one tool for evidence-based reflection and discussion in each school's ongoing work.

Once all the case study site visits were completed, the researcher team turned their attention to analyzing the data. Individual case study files were created for each of the case study schools included in the study. These files included site documents, recorded interviews, observation protocol data, field notes, internal memos, and other artifacts. In some cases, additional data was accumulated or clarified with extended research of school documents or brief follow-up conversations with school leaders.

The formal observation data and field notes from interviews were compiled and summarized using descriptive analysis of categorical data from Typical and Improving schools as well as a cross-case analysis by theme. The categorized data used for the school-level reports was also compiled, and filters were created for various descriptive data as well as identified

themes and performance levels. This organization of the database allowed researchers to filter the data within certain subgroups or characteristics. Such organization aided the analysis as well as identified specific examples of practices.

Following the compilation and organization of field study data, all field researchers reviewed the data individually and began to identify what appeared to be developing themes or features of the schools in each category. The researchers then met multiple times face-to-face to discuss the preliminary findings using a cross-case analysis of their notes, anecdotal evidence and observed overall trends. This analysis of both quantitative and qualitative data from the field research led to establishing a preliminary list of recurring themes and distinguishing features of Improving schools. These preliminary themes and features were then tested through triangulation of the findings by applying filters and re-coding data based on its application to a specific theme or feature and comparison across the two types of schools. Data that did not fit the preliminary themes or features was also identified and re-analyzed.

Using all the analysis techniques mentioned above, researchers then developed internal supporting and non-example memos for each of the distinctive themes and/or features found in the Improving schools. This process led to the identification of three larger components that distinguished the Improving Schools. The three components were then refined and supported with specific sample practices found in the Improving Schools in the study.

## STUDY FINDINGS

From the initial phases of data collection, it was evident that the findings of this study would diverge from many theories seen in literature review regarding improving schools in the United States. Much of this existing literature focuses on large, urban schools with historically low performance that were led to a quick "turnaround" of culture and achievement in a few years. A majority of Maine's districts, schools and students live in rural communities (Johnson, Showalter & Klein, 2012, p. 46). Table 2 describes the percentage of students, schools and school districts identified as rural in a 2012 report by The Rural School and Community Trust.

**Table 2. Rural Schools in Maine**

	Maine	Ranking in U.S.
% Rural Schools	67	5th
% Rural Students	53	3rd
% Small Rural Districts	66	11th
% Rural Student Poverty	39	24th

In addition, "from 1999 to 2008, Maine saw an increase of 8.2 percentage points in the rate of rural students in poverty, as compared with a 5.9 percentage point gain during the same time period for the nation as a whole" (Johnson et al., 2012, p. 46).

Certainly, many large, urban improving schools highlighted in literature deal with extraordinary poverty and socioeconomic barriers for students to demonstrate academic achievement. However, rural schools and students are reported as facing greater challenges in their work to be college and career ready. "Rural students were significantly less likely than suburban and urban students to take rigorous courses" Only 20% of rural students reported to have parents with a bachelor's degree or higher, in contrast to 34% of suburban students and 36% of urban students. It is also indicated that post-secondary degree expectations of rural students are lower than their counterparts in suburban and urban communities (Byun, Meece & Irvin, 2012, p. 422).

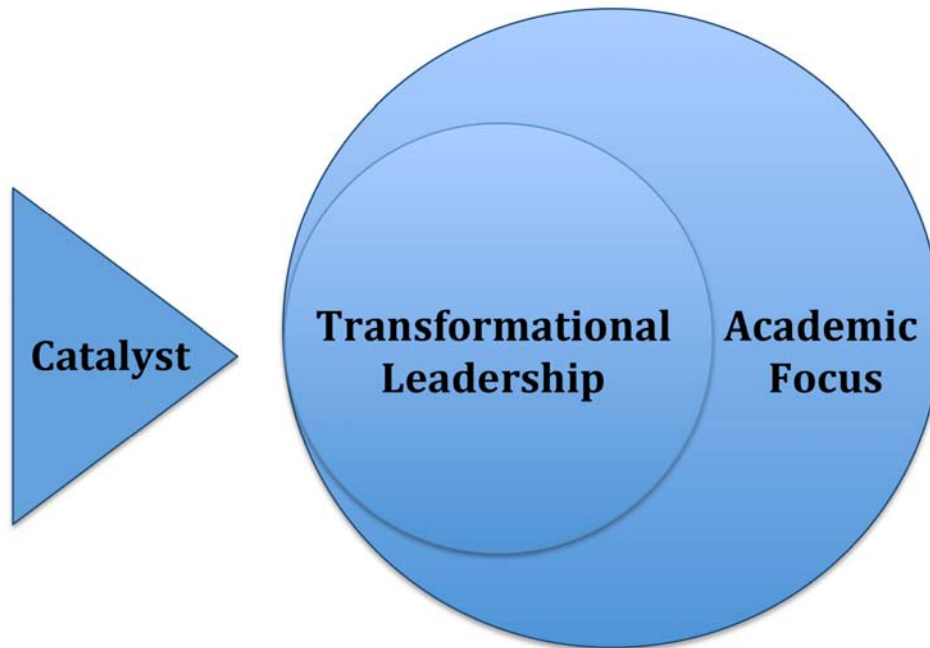
Therefore, it is important not to fully liken the situation of many Maine schools with models often held up nationally or in much of the literature regarding improvement efforts in the United States. While there is limited existing research on exclusively on rural schools, some practices commonly cited in research involving improving rural schools include increased teacher training and professional development (Kannapel et al, 2005), greater resource access

(McGee, 2003), enhanced leadership (Chance & Segura, 2009), more community involvement (Masumoto & Brown-Welty, 2009), and targeted curriculum development (Strickland, 2001). These characteristics could also be seen developing within Maine's Improving Schools. This study suggests that many Improving Schools in Maine had periods of time when student achievement had been significantly below the state average. Then, in most cases, improvement was a gradual, intricate process. This progression did not encompass massive personnel changes and rarely reflected the "visible changes" and "quick wins" such as those seen in urban "Turnaround Schools." One Improving School leader said, "There is no silver bullet. There is gradual change, not quick change."

Many schools in Maine do appear to be incorporating some of these reform methods mentioned in existing research involving rural schools. However, a deeper analysis of the schools in this study revealed three interconnected components that distinguished the journey of Maine's Improving Schools: *Catalyst for Change*, *Transformational Leadership* and *Academic Focus*. The components of Improving Schools in Maine are individually important as described in following sections of this report but seem to result in the most significant improvement in student achievement when they are implemented in combination with each other. There appeared to be a developmental and progressive nature of the improvement. For example, a catalyst can jumpstart the process for self-reflection within a school, then leaders translate a readiness for change into a vision and plan for improvement. As staff implements effective practices that move the school toward an academic focus, leadership is constantly refining their methods to build a culture of sustained improvement. Figure 2 below represents this progression into improvement with the recursive pattern of leadership and the work required to maintain focus. Even when a higher performing school has been designated as More Efficient, as in Phase I of this study, it must ensure that the components of Improving Schools are maintained. Therefore, the Intellectual Work, Equity and Efficiency characteristics of More Efficient Schools work together with Transformational Leadership and Academic Focus components of Improving Schools to continue on a successful path.



Figure 2. Progressive Components of Improving Schools



**Catalyst for Change**

- Involves an evaluation of data and information.
- Capitalizes on an opportunity for self-assessment and improvement.

**Transformational Leadership**

- Develops a focused vision for improvement.
- Upholds accountability at all levels.
- Engages staff in collective, deliberate work.

**Academic Focus**

- Indicates the implementation of effective practices.
- Reflects a use of time with a pervasive focus on learning.
- Reinvigorates teaching and learning.

## CATALYST FOR CHANGE

How does a school become Higher Performing/More Efficient, and where does the path to improvement begin? Before there is significant and sustained reform that is evident within the school, there must be a defining factor—a *catalyst*—that forces a school community to pause, reflect and, ultimately, act. In this study, we define catalyst as the information provided to a school through a process of self-assessment or external evaluation. At minimum, the catalyst exposes what needs to be addressed, and, at best, it is perceived as an opportunity for systemic change.

**Self-Assessment with Standardized Data and Information**

Federal and state education policies often require schools to provide student achievement data for evaluation. This data and consequential evaluations can serve as a catalyst for change. The federal initiative No Child Left Behind (NCLB) requires all publicly funded schools to administer annual statewide standardized tests in reading and mathematics from grade 3 through grade 8 as well as grade 11 to determine progress towards the goal of proficiency for all students, or Adequate Yearly Progress (AYP). In Maine, the New England Common Assessment Program (NECAP) is used to meet this NCLB mandate. The NECAP also includes a writing assessment given to grades 5 and 8. Maine students in grade 11 are administered the Maine High School Assessment, which includes a Science test and the Student Achievement Test (SAT) in the areas of critical reading, writing, and mathematics.

Additional local and standardized assessments are available for schools to supplement this pool of student achievement data. Many schools incorporate student achievement data from the Northwest Evaluation Association's (NWEA) formative assessments in various subject areas for many grade levels. For most Maine high schools, an additional source of qualitative information about school culture and practices comes from the New England Accreditation of Schools and Colleges (NEASC), which uses self-reflection, peer review, and best practices as key criteria of its evaluation process. NEASC accreditation works within a ten-year cycle that includes a required period of implementing at least one year of self-assessment protocols prior to external evaluation.

For many schools, the external evaluations embedded within NCLB or NEASC necessitated school wide self-assessment of practices and student achievement levels. In some cases, program funding was dependent upon specific changes within a school. Among the Improving Schools, this situation called the need for improvement to the forefront of the agenda of district administrators, school leaders, school boards and/or the community. **Improving Schools capitalized on an opportunity for self-assessment that laid the foundation for**

**improvement, while the Typical Schools either responded ineffectively or not at all to a catalyst for change.**

In the case of one Improving School, the stigma of failing to meet AYP progress goals engaged staff in a re-examination of instructional practices and encouraged collaboration among teachers on a regular basis. A district leader recalled, “It was a real slap in the face. The staff really came together; they were going to show the community that they didn’t deserve this label.” Another school identified as a Continuous Improvement Priority Status (CIPS) school following two or more consecutive years of inadequate student performance responded similarly. This identification roused the administration and faculty to aspire higher. A teacher explained, “Getting on the CIPS list...served as a motivation.” In contrast, staff at one Typical School described the requirements mandated from failing to meet AYP progress goals as “one more thing to do.”

In another community, there had been a longstanding discontent with the school and its students' low academic performance. Following the school’s loss of NEASC accreditation due to facility limitations, parents and community members seized an opportunity. They rallied to invigorate their school and subsequently raised funds, which were 50% matched by an area business, to improve and expand the facility. The school then won a grant to make systemic changes to curriculum, community engagement, student groupings, and professional learning. A few years later, the school hired a dynamic principal who capitalized on the momentum and infused energy into long-lasting reforms.

In contrast, during three years as a CIPS school, one Typical School was not able to mobilize efforts to change. A teacher said, “[It’s] just one more thing to do.” When the school re-configured grade levels, many teachers felt it would be an “opportunity for change,” but it did not develop as such. As well, though they implemented a writing across the curriculum literacy initiative, it too fizzled out: “Unfortunately, it seems like we try something, it works, but we go on to the next new thing. We did [writing across the curriculum] for 2-3 years, and it seemed to work, and I don’t know why we stopped.”

**Incremental Change**

In other Improving Schools, the impetus for change came more gradually or was instigated by local changes. In another school, some years of a tense school and community relationship had created an environment of very negative public perceptions. District leaders indicated that various steps began the improvement process: hiring parents as support staff to better understand the school's goals and context, recruiting families and community leaders for committees, and showcasing student learning in more public venues. A change in families, personnel, and atmosphere allowed the school to slowly rebuild over the years. As a result, a very active and involved PTO emerged and sustained a positive presence in the school. In

addition, the school demonstrated a great pride in its intellectual focus and academic achievements. But as the school moved forward, people still remembered that challenging period of time, and it continued to be the catalyst for ongoing improvement.

For many schools, a variety of factors came together to instigate the need for change and presented the opportunity for improvement. The catalyst was perceived in Improving Schools in this study as the “last straw” or “rock bottom,” and they saw change as necessary and possible. In some Improving Schools, new leadership, district/school reconfiguration or a constant refrain finally falling on the right ears at the right time caused consistently poor student performance to instigate internal examinations of stale and ineffective programs and practices. In one Improving School, staff pointed to statewide district re-configuration as one catalyst for improvement. This was a smaller school consolidating with a larger district, and there was some discussion about closing the school or absorbing it into another school. One staff member said, "Since consolidation we have had to prove ourselves to maintain school autonomy, so we need to be more public with our successes." New school and district leadership worked with the school and its community, and it ultimately stay open as well as embarked upon an on-going improvement of student achievement.

However, all of the schools in this study, Improving and Typical, had experience with some type of catalyst, therefore it can be seen as a "necessary but not sufficient" component of starting the process of school improvement. So, it was an effective response to a catalyst for change that distinguished Improving Schools from Typical Schools. Improving Schools took purposeful, effective measures to ready themselves for change, while the missteps and/or inaction of Typical Schools constituted a missed opportunity. The key to achieving school improvement was the use of the catalyst to build the framework for progress. This next step was most often initiated and orchestrated by leaders.

## TRANSFORMATIONAL LEADERSHIP

While the presence of a catalyst for change is imperative to starting the improvement process, a critical component to realizing improvement is effective leadership. In the case study Improving Schools, the school’s principal or assistant principal most frequently filled this role. However, superintendents, assistant superintendents, community groups, teacher leaders as well as literacy and math specialists also led this change in some Improving Schools. These leaders were often supported by deliberate work and guidance from other individuals in leadership roles (i.e. principals, assistant principals, district leaders, department chairpersons, veteran teachers, etc.) in addition to groups of professional leadership teams (i.e. Data Team, Teacher Leadership Team, Administrative Team, etc.).

Many schools struggling to improve the academic achievement of their students are handed down transactional catalysts that urge or even require them to make institutional changes. In many cases, changes are not implemented or are not effective in improving the school. A distinguishing component of Improving Schools in Maine was their leadership's use of this external impetus for change to begin a process resulting in improved student performance. Leadership in Improving Schools guided their schools with goals and practices that capitalized on the circumstances made available by this opportunity for change.

While there is a vast pool of existing literature about effective leadership, the Improving Schools leaders appeared to reflect many traits of *transformational leadership* (Burns, 1978; Bass, 1999; Leithwood & Sun, 2012). An Improving School leader "envisions a desirable future, articulates how it can be reached, sets an example to be followed, sets high standards of performance, and shows determination and confidence" (Bass, 1999, p.11). Improving Schools leaders demonstrated this **process of creating clear goals that reflect high expectations of students and adults, developing a deliberate, effective plan to realize those goals as well as holding professionals accountable and modeling the focused work necessary to achieve those goals.** One teacher in an Improving School said, "Our principal...is the guiding force. She's striving for the best in her students and staff. She's always looking for ways for us to improve and get the most out of what we are doing."

Literature suggests that this leadership role can be fulfilled in various ways by an individual and does not require the leader to exhibit oft-assumed extroverted or dynamic personality traits (Kruger,

### LEADERSHIP PROFILE: TRANSFORMATIONAL SCHOOL PRINCIPAL

A rural Maine school serving a population that included approximately 60% of students eligible for free or reduced lunch began a community-wide improvement process after failing to be accredited. The school principal led significant, collective work to envision and implement a plan increasing academic expectations, reducing disengagement and raising academic performance. District leadership supported the school's improvement efforts by "providing [staff] with every learning opportunity that you can."

School leadership made sure this included observations of other educators (inside and beyond the school), data analysis, and independent research about reform strategies and schools with similar profiles. Collaborative professional learning opportunities with formal protocols guiding common time was built into the contractual day. The principal indicated that these steps "build upon previous work" and "apply new research tools to the existing focus" of implementing effective educational approaches and understanding student data. This was not easy work: "The first few years were really hard." The principal believed it was important to celebrate success whenever possible: "Look everywhere for evidence of growth." The principal as well as other school administrators and teacher leaders maintained a process of rigorous standards and robust supports for students and professionals alike, which resulted in improved academic performance and a "better school."

2009). While some Improving School leaders were said to be "inspirational," "very enthusiastic," and "visionary," one principal was described as "clear about expectations" and "likes things done just so" but also as "gentle and diplomatic in her approach." A school board member described another principal as "respected and challenging...he's pretty no nonsense."

In fact, many Improving Schools leaders allowed other professionals to support their work in complementary roles, which reflected that they understood the strengths and limits of their own personality and skill set. In one school, the assistant principal and principal were described as having "an interesting balance as a team. [The principal shows] kindness and warmth. [The assistant principal is] task oriented but he has compassion, too." Another Improving School was led by a visionary principal with significant concrete support from the teacher-led Data Team. In several Improving Schools, the academic goals set by the leadership were implemented and guided by literacy specialists, math department chairpersons or curriculum coordinators. In contrast, some educators with the capacity for effective leadership in Typical Schools indicated that they were not supported by administration or even told "not to step on the principal's toes" when attempting to initiate reforms. Therefore, while an individual leader clearly directed the progress and was cited as the school's strongest force towards improvement, the work was not done alone nor did it reflect only one type of personality or style.

### An Explicit Plan

The professional work of reform often incorporates the review of various philosophies, methods and strategies for improving student achievement and/or school culture. In Improving Schools, this intellectual work usually resulted in developing **a hybrid of various practices with high academic standards that best fit the school's context and student population.**

Leadership in Improving Schools encouraged students, staff and families to be innovative in their approaches and evaluation of new ideas. Some schools had adopted aspects of Expeditionary Learning, Standards-Based Education, Student-Centered Teaming and other whole-school reform approaches. Some schools had incorporated curricular strategies from Maine Content Literacy Project, Fountas & Pinnell reading program, Investigations mathematics, Six Traits of Writing, and other programs. However, the distinctive feature of the Improving Schools was the collective, research-based process in which leadership led the staff to develop common school-wide strategies and methods that were proven to improve their students' achievement and fit the academic and intellectual needs of their children. As one teacher said, "As long as we've done our research and know that what we're doing is research-backed, [the principal] is very supportive." This rarely meant full-scale adoption of one reform or curriculum with fidelity. More often, it was a creative but common mixture of various methods that had been tested and re-tested using data and analysis of implementation within the school. Nor did this work mean that each teacher had free choice to do whatever he/she wanted. A teacher said, "We are not

doing this work in silos; we make interconnections between task groups." In practice, "a lot of time is spent thinking about what is best for kids."

### Thoughtful Use of Data

For Improving Schools, the catalyst for change provided an opportunity for professional self-assessment within the school. It was clear that the **use of student achievement data to identify curricular gaps and instructional needs helped propel their vision for improvement**. One teacher recalled, "We became reflective." A district leader explained, "Our work is thoughtful, especially when looking at student data." Among Improving Schools, this use of data reflected a change in paradigm. As one teacher put it, "I think there's been a shift in looking at data and having data drive your work with children."

For example, following the first year of CIPS status, one Improving School created a two-year improvement plan. To do this, a group of teachers and school leaders comprised a Data Team that met once a month to examine and analyze data. The Data Team would then meet with staff once a month to train classroom teachers how to understand and utilize this data in their practice. "It took a long time for us to attach to the significance of [Maine Education Assessment (MEA)] results. The proof of achievement was inside our walls, not outside our walls...performance on outside measures has become more important," one teacher said.

In contrast, there was less evidence of sustained, system-wide use of data among Typical Schools. One school used data to identify specific literacy skills of a subgroup of students. Another school analyzed data and identified student needs from school-wide constructed-response writing samples for a couple of years, but no longer engaged in this practice at the time of our site visit. Many of the Typical Schools used data intermittently or in pockets but seemed to stop short of systemically identifying areas in need of improvement.

### Accountability

Many struggling schools appeal to their educators' and community's sense of obligation to better the lives of children, but Improving Schools leaders coupled this with the understanding that **every adult had a intellectual responsibility to think about how his/her practice and role in each student's learning opportunities could enhance that child's educational experience**. One teacher said that their staff began by asking themselves, "Were we going to be part of the solution?" Every educator (teachers, leaders and professional staff members) was then directly asked by leadership to be part of the solution. In Improving Schools, the vast majority of the school's staff responded with a willingness to engage in this work. "Ownership, everyone takes ownership." Improving Schools leaders directed this work with the transformational leadership characteristic of "individualized consideration...when leaders pay attention to the developmental needs of followers and support and coach..." (Bass, 1999, p.11). Leadership in

Improving Schools was cited as being very involved and aware of the abilities and performance of the professionals in their schools. One educator said,

*"First and foremost, you have to have a good leader that is involved and engaged."*

Another teacher said, "Department heads work closely with the principal and teachers to keep them on track." A teacher said his school leaders demonstrated "significant support for quality teaching, and increased expectation for quality teaching." Many Improving Schools leaders incorporated "very intentional practices" of sharing formal and informal feedback with educators, including regular classroom observations, on-going group and individual conversations, as well as involvement in various committees. A teacher said, "[The principal] is always on top of everything, not in an intrusive way but in a good way." An educational technician described the school administrators as "very supportive and hands-on." One teacher said, "The administration coming into your classrooms all the time is very powerful." Another Improving School leader was commended because she "finds support for teachers who need it." Leadership in Improving Schools invoked a "spirit of cooperation" but also "keeps everyone accountable to the work." A teacher explained, "We work within the parameters [our principal] gave us."

### **Collective, Deliberate Work**

There were definitely collective high expectations from leadership and among staff in Improving Schools to utilize **a rigorous learning process to improve their school as well as model learning for each other and their students**. One superintendent indicated, "This faculty has a great skill set. There is strong mutual support...We are not complacent. We have expectations: we expect our children to do well, and we expect our school to be doing well by our children." One district involved educators and school board members with four explicit tasks--one for each area of need identified in the strategic plan--to research and recommend specific methods for addressing this need. The task committees were asked to look at "revolutionary learning," "dissect data" from local and national work, and research best practices. Using this background, the group recommended ways to "empower teachers" to implement these ideas. An important distinction of the Improving Schools was the feeling of true collaboration and collective work. Staff in Typical Schools indicated that they often served on committees, but many participants were unsure how their work was being used or shared examples of changes that completely contradicted their recommendations with no discussion or explanation.



Transformational leaders not only guide their staff to engage in this focused, rigorous work, they also "set an example to be followed...and show determination and confidence" (Bass, 1999, p.11). These leaders in Improving Schools often did the "thinking behind the thinking" (Adelman, 2013, p. 261). One assistant principal indicated that he stayed in his position in an Improving School despite opportunities to apply for head principal positions in other schools because "I get to be an educational leader" not just a disciplinarian. He was also described by the superintendent as "an academic coach." Leaders in Improving Schools had evidently done significant data collection, analysis and developed ideas from this work to share with colleagues for review. School improvement was not only a moral obligation for these individuals; it was also an invigorating and rigorous intellectual challenge.

This enthusiasm for the intellectual challenge of improving a child's educational opportunities was evident in the practices and habits of educators in Improving Schools as well. Leaders in these schools shared the belief that **professionals needed more than solutions handed to them, they needed practice and support in making difficult decisions as well as guided experience in grappling with the challenges of improving education.** In fact, leadership in Improving Schools indicated that it was an expectation of the professionals in their building to "want to know the situation so that we can try and deal with the underlying cause" even when "to get there is hard."

## ACADEMIC FOCUS

Economist Albert O. Hirschman believed "progress was the product of successful habits" (Gladwell, 2013, p. 6). Improving Schools in Maine demonstrated that part of their journey was developing a culture of focused, effective habits of learning for both students and adults. On their way to a pervasive culture of Intellectual Work seen in Maine's More Efficient Schools, these Improving Schools had begun to build this climate with diligent focus on selecting, implementing and refining tools to improve student academic achievement. This included systems of intervention, classroom strategies, curriculum materials, management methods and behavioral models. Embedded within this work was the development of constant and school wide "successful habits" that used every moment of the school day to focus on learning. While academic and content knowledge was a core aspect of this work, rigorous engagement in learning in all areas was approached as "fun *because* it is hard rather than *in spite* of being hard." (Papert, 2002) This belief was espoused and modeled by educators throughout the school and in various situations.

### Implementing and Evaluating Effective Practices

While More Efficient Schools in Maine realized a more pervasive culture of Intellectual Work that encompassed numerous subject areas, including the sciences and arts, it appeared that many Improving Schools **focused their work at first on the areas of math and literacy**. Many schools had increased the amount of time in every student's daily schedule dedicated to math and reading. Significant intervention systems were in place in many schools for students struggling with math or literacy. Some Improving Schools had Literacy and/or Math Specialists who guided professional work, assisted teachers and worked directly with students. Therefore, there appeared to be a closer correlation with the areas of standardized testing and areas targeted for focused improvement strategies in Improving Schools. Since these schools were identified as improving from their performance on standardized tests, this is a predictable connection. However, Typical schools incorporated some of these aspects and espoused a renewed focus on math and/or literacy. So, again, it was not simply the presence of these measures to have a greater attention paid to tested subject areas, it was also how these strategies for overall improvement were chosen and implemented.

The methods used in Improving Schools to select both supplemental learning experiences and core academic programming included on-going evaluation of the implementation methods, correlating student achievement data and further research. As mentioned in the previous section regarding leadership, leaders and practitioners did this work collectively. In fact, many Improving Schools involved education technicians in this process as well so that they "understand what is expected." A teacher said, "We're all up on current best practices, and I think it's because most of us are taking classes and attending workshops. It seems we're always learning new strategies and talking about them." The superintendent said, "We are looking at outcomes." He added that professional learning opportunities for teachers were encouraged but also focused by leadership: "There had been a history of not saying no [to professional day requests]. I have said no." This collaborative atmosphere of high expectations for both the method of selecting and outcome of a chosen practice appeared to create **checks and balances that filtered out less effective strategies or led to the refinement of programs**. A curriculum coordinator described their improvement plan: "Our method is to plan, tweak, evaluate and get feedback." One teacher credited a new math program with improved skill levels, but explained that though the program was "strong, it has gaps," and "we have the latitude to make improvements to the curriculum."

This process of selecting effective practices includes being "very diagnostic with student assessment data." A principal described a collective approach to understanding student performance on state standardized tests, "It's not just one grade. We tear it apart. Our staff knows how to read data." While many schools, Improving and Typical, gathered student data, Improving Schools were more likely to have **practitioners that had access to, understood and**

**used the data to guide reforms and invigorate their evaluation of programs.** A district leader said, "There's been a progression over the last five years to paying attention to state level scores and then drilling down to classroom level assessments. I think that each year we get better at using assessment data to inform classroom level instruction." In many Improving Schools, educators indicated that it was also important to involve students in the awareness of their individual performance and assessment data. A teacher said, "We share [test] scores with students and say, 'You are competing with yourself.'" Another teacher indicated, "We talk to kids about what they learn: 'What is the purpose? Prove to me that you know this.'"

Many of these Improving Schools (and especially those with higher student performance) seemed to be on their way to extending this work into all content areas and subjects of learning. Higher performing Improving Schools demonstrated the dedication to replicating the "successful habits" of improving student assessment performance in math and literacy within other areas of learning. One school board member said, "Our community is not going to let the arts go. You can't just take away music; it's a building block."

For example, one Improving School hosted a theater troupe for a one-week intensive drama training and production. While the teachers wanted to collect regular homework from the students during that week, the principal argued against this by explicating the rigorous work habits and challenging goals within the production process and visiting theater staff. A teacher said she realized, "There are high expectations in that program, too. They do a full public performance in one week. And it's good!" However, such divergences from regular academic work patterns were chosen carefully and implemented selectively. In contrast, Typical Schools seemed to allow disruptions to the academic rhythm of the school day on a more regular basis. Some of these less effective practices could potentially contribute to a child's overall learning experience--Wellness Fair, Recognition Assembly, Advisory Period--but observations and anecdotes from site visits suggested that in Typical Schools these programs more frequently interrupted instead of enhanced academic work, were less organized, and not as deliberately connected to a rigorous learning process.

### Use of Time

A distinctive characteristic of Improving Schools was their deliberate efforts to utilize every minute of the school day in a focused manner that contributed to student learning. Many Typical Schools exhibited similar levels of student engagement (defined in our observation tool as on-task behavior) in comparison to Improving Schools. Therefore, it was not necessarily compliance or solid classroom management that distinguished the Improving Schools. Instead, observational notes and evidence from student and teacher interviews suggested that **the nature of classroom tasks were more focused on academic learning** in Improving Schools. For example, a classroom observed having a popcorn party or watching a movie unrelated to curriculum material would still reflect "on-task" behavior in this study if all students were

engaged in that task. Teachers in Improving Schools regularly indicated that these activities were very rare in their classrooms. A student said, "We work a lot during the week. In all of our classes we try to fit in as much as we can." One teacher said, Observations reflected that it was more common for significant time in a student's day to be

*"I don't think any of us would choose not to do academics during any free moment of time."*

spent engaged in non-academic activities in Typical Schools. As mentioned above, some of these periods in the schedule were identified in ways that suggested they could be used for quality learning experiences: Learning Lab, Advisory Period, and Silent Sustained Reading. However, observations suggested that the actual classroom expectations often did not go beyond having students behave in a non-disruptive manner.

This rigorous focus on academic work was also seen more systemically throughout Improving Schools. As one teacher said, "Nothing interrupts math class. I do not skip math." Daily schedules appeared to be more deliberately and efficiently planned with increased time for math, reading and writing instruction. Higher performing Improving Schools appeared to have developed a more pervasive culture of academic focus, while some Improving Schools at the beginning stages of their progress were still working on this characteristic. One parent from an Improving School said, "Teachers at seem to have a philosophy of engaging students with fun, then doing work that has fun as a reward; this helps keep learning engaging but not sure how much hard work they are actually doing." The current principal pointed to this type of perception as a shared concern and outlined measures the school had recently taken to improve these types of practices. In fact, having a parent raise this issue was the first stage of improvement: school leaders and parents had a shared impetus for change that was focused on more efficient use of time for student learning.

In addition, a two-way dynamic interaction between students and teachers was observed in many Improving Schools classrooms. Typical Schools observation notes more frequently indicated students were "working independently on worksheets," "there is no talking," "students listen and can add something but don't have to," or "all children following directions." In Improving Schools, **student engagement appeared to be more interactive and focused on learning as opposed to following directions**. Researchers' observation notes from Improving Schools more frequently included descriptions such as "each pair of students worked through the learning activity by sharing ideas, evaluating each others' input and deciding on the best

sentence," "by nature of the activity, students became experts in their chosen book," or "students appeared comfortable asking teacher for clarification."

Educators in Improving Schools also appeared to engage in a more complex combination of roles during learning activities. Researchers' identified any and all roles in which an educator was acting during the 3-5-minute observations (n= 524). The roles included conferencing, facilitating, presenting, monitoring and working independently. More than one role could be recorded during one observation. The percentages of demonstration in each specific role were similar when comparing observations from Improving and Typical Schools. However, there was a distinctive difference when comparing the percentage of observations that reflected the educator working within multiple roles during one observation: 9% of observations in Typical Schools showed teachers acting in multiple roles; 23% of observations in Improving Schools showed teachers acting in multiple roles.

Improving and Typical Schools alike dealt with the numerous challenges of students of poverty, students with behavioral struggles and managing large populations of children. As previously mentioned, all of the schools in our study appeared to have a solid handle on running a safe and secure school. Many case study schools, Improving and Typical, demonstrated very positive climates as well. Therefore, it was the academic and intellectual focus that distinguished the efficient practices and culture of Improving Schools. There was a transparent expectation spoken and modeled throughout the school that people were there to learn. Having **common, effective methods for dealing with inevitable conflicts or distractions** allowed Improving Schools to be more efficient by spending more time engaged in academic learning than in managing these issues. A teacher in a school with over 60% of its students eligible for free/reduced lunch said, "We can say [to students], 'This is important. We're still going to do math even though things at home aren't going well.'" Another teacher said the school administrators sent the same message by telling students, "I know you're having a hard time, but you still have work to do." One school credited their work in collaborative problem solving: "It helped with the academic piece as well because the discipline problems de-escalated, so there was much more time that you could focus on the academics." The district leadership supported this notion with district and community efforts funded by significant grants and personnel to deal with some of the core issues challenging students and their families. These projects included collaboration with municipal leaders, non-profit organizations, and the juvenile justice system. The assistant superintendent said, "Teachers need to focus on teaching. Other connections in the community can deal with those other issues." In another Improving School, a teacher said, "The more a school can reach out to a community, the more it allows the school to focus on education."

### Students and Educators Invigorated by Learning

A core philosophy, both voiced and exhibited by Improving Schools was the belief that rigorous learning experiences are both fun and challenging. Instead of approaching work as a dreaded task with the hope of being rewarded by something more fun upon its completion, both **students and adults in Improving Schools more often demonstrated that the work itself was fun and the rigor was part of what made it fun.** Because members of the school community approached learning tasks and difficult issues as collective intellectual challenges that invigorated the participants, they spent more time engaged in this work. This focused practice made Improving Schools more efficient in their use of time during both the school day and in professional work.

**Educators and school leaders embraced hard work collectively, constantly challenging and engaging in dialogue with each other about their practice.** One Improving School had taken on collaborative lesson planning, collegial observations and reflective conversations to develop common lessons and curriculum. A formal Professional Learning Community protocol had been adapted by these teachers, and the exchange of ideas was often more informal. One teacher explained that instead of a set schedule of peer observations, the process was more organic: "Hey, I heard you were doing this really great thing, and all the kids are talking about it. Could I come in and see it in action?" Another Improving School had adopted a more formal protocol for collective work that connected peer observations with teacher evaluations, included embedded, common professional time in the daily schedule, and developed a peer coaching program that had a focus on instructional practice. This culture of professional reflection reportedly "de-privatized their practice." One school administrator said it was important to "knock down the walls and get people in each other's classrooms." Teachers in Improving Schools said these practices made their work challenging but "taught us how to go through the process of change" and "develop internal experts."

This professional innovation and invigoration was often transparent to students in Improving Schools. One teacher explained that "we model learning for our students" by talking about professional research and graduate coursework. Improving Schools believed in the process of digging into an idea, grappling with the material, sharing experiences and the on-going cycle of revising this work again and again. **A student said, "We don't just jump into a project. We study how to do it, and we do rough drafts."** This was evident in professional work as well as student work. A curriculum coordinator described the approach to work as "very conscious." One school held up the recent incorporation of a pre-kindergarten program as evidence of the importance of hard work and fun existing within each other. A teacher said, "Pre-school is helping build the value and necessity of reading." And researchers' observations indicated that students in the pre-school program were navigating through complex decision-making, creative play and demonstrating high levels of focus on their tasks. When one pre-school student was

asked what he was doing in a learning station where he appeared to be building an intricate structure with wooden blocks, he responded, "Making something fun."

## CONCLUSION

Comparing the methods of Maine's Improving Schools to schools not demonstrating improvement may be likened to a comparison of research design methods. Experimental research design is often considered the most rigorous of the design methods since it can allow researchers to make conclusions suggesting that one specific action causes another. In many educational reform models, schools are asked to implement a program with fidelity under the assumption that it will cause an improved school culture and increased student achievement. This is a very tempting method for improving schools. We saw in our study that some schools had tried to impose full-scale programs or changes. Unfortunately, over time, these reforms were abandoned or found ineffective. In research as well, conducting experimental studies in the social sciences with human subjects and in contexts with numerous variables is a very difficult task.

This is not to say that schools should not try new ways to improve the educational experience of their students. Children in the United States spend approximately 16% of their hours from ages 0-18 in school. After family or home, this could be the second largest influence on a child. Therefore, schools must tackle the huge challenge of providing a quality education for every student. Improving Schools in Maine seemed to have discovered that conducting an one-size-fits-all experiment is often less effective than constructing their own reform using basic tested design elements of research: program, time, as well as observation & measurement. First, the school's practitioners and transformational leaders use data and information to define the research problems and identify the specific needs and struggles of the school. Then, they collectively conduct a review and synthesis of existing programs to find practices and materials to fit the school's needs and context. They implement the selected programs in a focused manner as intended or as collectively decided giving ample time for full adoption. During implementation, they conduct evaluations of the programs using measurements such as classroom observations, student assessments, cross case analysis discussion of anecdotal evidence, etc. They come together regularly to reflect on the program's strengths and weaknesses. There may be adaptations or innovations agreed upon as time progresses. Then, after reporting on their findings, collaborative work leads to recommendations. And the process starts again.

Key aspects of the distinctive features of Improving Schools in Maine were that their work was innovative, invigorating, collective and on-going. Leaders certainly guide the decision-making process and provide evaluative feedback, both formal and informal. However, decisions

clearly incorporate the information and ideas of many educators and community members. Improving education is truly a collective journey that engages people in challenging and exhilarating work. Although progress can feel slow, "incremental" improvement as Charles Lindblom (1959) recommended can be seen as a process of "building on the past" (p.81). Improving Schools in Maine demonstrated an understanding of the importance and challenges of this journey to better the learning experiences of their students. There were certainly stumbling blocks, hurdles and a great deal of arduous work. However, just as the students in many schools we visited shared their schoolwork with pride and enthusiasm, so too did the educators in Improving Schools approach their journey to improve their schools with passion and gratification. As one educator at a Maine Improving School said, "Teachers and students at this school are enthused about learning."



## REFERENCES

- Adelman, J. (2013). *Worldly Philosopher: The Odyssey of Albert O. Hirschman*. Princeton University Press.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9-32.
- Boser, U. (2011). Return on educational investment: A district-by-district evaluation of U.S. educational productivity. Washington, D.C.: Center for American Progress.
- Burns, J. M. (1978). Leadership and followership. *Leadership*, 18-23.
- Byun, S. Y., Meece, J. L., & Irvin, M. J. (2012). Rural-nonrural disparities in postsecondary educational attainment revisited. *American Educational Research Journal*, 49(3), 412-437.
- Chance, P. L., & Segura, S. N. (2009). A rural high school's collaborative approach to school improvement. *Journal of Research in Rural Education*, 24(5), 1-12.
- Gladwell, M. (2013, June 24). The gift of doubt: Albert O. Hirschman and the power of failure. {Review of the book *Worldly Philosopher: The Odyssey of Albert O. Hirschman*.} *The New Yorker*. Retrieved from [http://www.newyorker.com/arts/critics/books/2013/06/24/130624crbo\\_books\\_gladwell](http://www.newyorker.com/arts/critics/books/2013/06/24/130624crbo_books_gladwell)
- Johnson, J., Showalter, D. D., & Klein, R. (2012). Why rural matters 2011-12: The condition of rural education in the 50 states. The Rural School and Community Trust Policy Program.
- Kannapel, P. J., Clements, S. K., Taylor, D., & Hibpshman, T. (2005). Inside the black box of high-performing high-poverty schools. Report, Prichard Committee for Academic Excellence.
- Krüger, M. (2009). The big five of school leadership competences in the Netherlands. *School Leadership and Management*, 29(2), 109-127.
- Lindblom, C. E. (1959). The science of "muddling through." *Public administration review*, 79-88.
- Masumoto, M., & Brown-Welty, S. (2009). Case study of leadership practices and school-community interrelationships in high-performing, high-poverty, rural California high schools. *Journal of Research in Rural Education*, 24(1), 1-18.
- McGee, G.W. (2003). Closing Illinois' achievement gap: Lessons from the "Golden Spike" high poverty high performing schools. Unpublished paper presented at American Educational Research Association Annual Meeting, Chicago, IL.
- Papert, S. (2002). Hard fun. *Bangor Daily News*.
- Strickland, D.S. (2001). Early intervention for African American children considered to be at risk. In Neuman, S. & Dickinson, D. (Eds.) *Handbook of Early Literacy Research*. New York, NY: Guilford Press.

## Appendix A: Classroom Observation Protocol

6/27/13

Student Learning Observation

### Student Learning Observation

**Definitions**

Understanding = focused, sustained and deep academic (content knowledge and core skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.

Transformation = constant inquiry using higher order thinking skills (analysis, synthesis, evaluation) to develop innovative solutions, rather than simply repeating given/found information.

Share = clear communication of invigorating conclusions that enhance existing ideas.

\* Required

**School Name \***

### Learning Task

Answer the following items with regards to the assignment or activity in which students are expected engage during the observed class time.

**Grade Level \***

**Class Subject or Content Area \***

**Class Procedure Time \***

**Notes: Class Procedure Time**

May include notes about efficiency or strategies for transitions, methods for maintaining student engagement, techniques for focusing students on task at hand, etc.

**Learning Activity Level of Intellectual Work: Understanding and Transformation \***

Understanding = focused, sustained and deep academic (content knowledge and core skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.

Transformation = constant inquiry using higher order thinking skills (analysis, synthesis, evaluation) to develop innovative solutions, rather than simply repeating given/found information. Identify the

6/27/13

Student Learning Observation

level that best describes the interactions, demonstrations and questions the student(s) are being asked to share in the learning activity being observed. Select one.

- The learning activity's most prevalent expectation requires students to demonstrate "UNDERSTANDING" of relevant content knowledge and/or core skills.
- The learning activity's most prevalent expectation requires students to demonstrate "TRANSFORMATION," including higher order thinking skills and/or innovative ideas.
- The learning activity includes a balanced MIXTURE of requiring students to demonstrate understanding and transformation.
- The learning activity does not engage students.

**Notes (Learning Activity):**

Include quotes, examples, comments, description, etc. of the Learning Activity addressed above.

**Educator**

Answer the following items with regards to the actions and interactions in which the professional educator is involved. If more than one professional educator is interacting with unique groups of students, it may be beneficial to complete this form separately for each individual educator.

**Number of Educators in Room \***

**Number of Students \***

**Educator Role \***

Check all that apply.

- Presenting
- Facilitating
- Monitoring
- Conferencing
- Working independently

**Educator Level of Intellectual Work: Understanding and Transformation \***

6/27/13

Student Learning Observation

Understanding = focused, sustained and deep academic (content knowledge and core skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.  
 Transformation = constant inquiry using higher order thinking skills (analysis, synthesis, evaluation) to develop innovative solutions, rather than simply repeating given/found information. Identify the level that best describes the interactions, demonstrations and questions the student(s) are being asked to share in the learning activity being observed. Select one.

- Educator(s) demonstrate UNDERSTANDING a majority of the time.
- Educator(s) demonstrate TRANSFORMATION a majority of the time.
- Educator(s) demonstrate a balanced MIX of understanding and transformation.
- Educator(s) is not engaged in the learning activity.

**Notes (Educator - Intellectual Work):**

Include quotes, examples, comments, description, etc. of the Educator's Intellectual Work referenced above:

**Student**

Answer the following items with regards to the actions and interactions demonstrated by the students in the learning activity at hand.

**Student Engagement \***

Identify the approximate percentage of students who appear to be physically and/or cognitively engaged in the learning activity.

less than half ▾

**Notes (Student Engagement):**

Include quotes, examples, comments, description, etc. of the Students' Engagement referenced above:

**Students' Level of Intellectual Work: Understanding and Transformation \***

6/27/13

Student Learning Observation

Understanding = focused, sustained and deep academic (content knowledge and core skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.  
 Transformation = constant inquiry using higher order thinking skills (analysis, synthesis, evaluation) to develop innovative solutions, rather than simply repeating given/found information. Identify the level that best describes the interactions, demonstrations and questions the student(s) are being asked to share in the learning activity being observed. Select all that apply.

- A MAJORITY of students demonstrate UNDERSTANDING a majority of the time.
- A MAJORITY of students demonstrate TRANSFORMATION a majority of the time.
- A MAJORITY of students demonstrate a balanced MIX of understanding and transformation.
- SOME students demonstrate a MIX of understanding and transformation.
- A FEW TO NO students demonstrate a MIX of understanding and transformation.
- Most students are not engaged in learning activity.

**Notes: Students' Level of Intellectual Work**

Include quotes, examples, comments, description, etc. of the Students' Intellectual Work referenced above:

**Other - Overall**

Include any other general notes about observation.

Never submit passwords through Google Forms.

Powered by [Google Docs](#)

[Report Abuse](#) - [Terms of Service](#) - [Additional Terms](#)