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The Maine Schools Study: Phase II
Report on Improving Maine Schools
Preliminary Analysis of Maine High Schools

Prepared for the Joint Standing Committee on Education and Cultural Affairs
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University of Southern Maine

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Overview

At the request of the state legislature, the Maine Education Policy Research Institute (MEPRI) at University of Southern Maine (USM) has been conducting a study of public schools that have been identified as: (1) more efficient; and (2) improving. Over the past two years, MEPRI has developed a set of metrics for identifying schools whose students are beating the odds by performing significantly better on state assessments than is predicted from student and community characteristics, and to use this same metric to identifying improving schools, school that have a record of improvement. The goal of the two-phase study has been to identify the strategies and practices that these two types of schools are using to support all learners.

The basic research design used in the two phased study entailed: (1) identifying more efficient and improving schools; (2) selecting a sample of schools to study in more detail; (3) conducting case studies on the sample schools; and (4) preparing cross case analyses and final reports for each phase of the study. Phase I of the study has been completed and the report is available at www.usm.maine.edu/cepare.

Phase II of the study is underway at this time, and the initial work has been completed on the Improving high schools. This report describes the criteria used in selecting the schools, case by case reports of each of the high schools, and a preliminary cross case analysis of the high school findings.

Three approaches to defining Improving were explored using four or more of the five measures (using only math and reading scores) developed for identifying “Higher Performing” status high schools.

- a) First the annual average z-score was calculated using the following standardized criteria, SS, meets plus, partially meets plus, & graduation rate, creating a year z-score for each of the four years of data. The difference in prior year z-score (across 4 years) was calculated (1011 z-score minus 0809 z-score, 0809 z-score minus 0708 z-score, 0708 z-score minus 0607 z-score). If the three differences within the year average z-scores of the three criteria were all positive, the school was considered improving.

This approach did not allow for many schools to receive the status of “Improving”. Some fluctuation in results across time would be considered not significantly different

from a previous result, such as having 89% of your students meeting standards one year and then 88.5% meeting the next. However mathematically this would be considered a drop as would a change from 89% to 80%. This approach was too sensitive to yearly fluctuations in results and was not used for the purposes of identifying “Improving” schools.

- b) Next each criteria, SS, meets plus, partially meets plus, & graduation rate was kept separate and differences were calculate. All differences within the criteria needed to be positive and all criteria changes needed to be positive to be considered “Improving”.

This approach was also too restrictive in having a school meet all conditions.

- c) Averaging the first two years of data and the last two years of data within each criteria then calculate the difference between the two. This was done for all 5 criteria SS, SS better than peers, meets plus, partially meets plus, & graduation rate. If all 5 criteria differences were positive then the school may be considered “Improving”.

This final approach allowed for all 5 criteria to be considered and for year to year fluctuations to be muted so that an overall positive, “Improving” trend could be observed and allowed for more schools to meet the criteria and qualify as “Improving”. Once the Improving High Schools were identified, the final step was selecting the case study schools. Several criteria were used in selecting a representative sample of high schools. These included: (1) school size; (2) geographic location; and (3) level of poverty. Application of these additional selection criteria resulted in the identification of five case study schools.

Two-day site visits were conducted at each of the five case study schools. Prior to the site visits, researchers reviewed documents about and from the school, and conducted an initial interview with the school principal. Each visit included individual and focus group interviews with teachers, education technicians, school nurses, librarians, guidance counselors, support staff, administrators, parents and students. Schools were responsible for inviting and organizing the focus groups, so the population varied but included teachers of all grade levels, student ability groupings and subject areas.

Each site visit also included numerous three-minute to five-minute observations of classes in progress throughout the school day. Researchers also recorded notes on

observations of teacher planning or common time, staff meetings, front office exchanges, transportation drop-off and pick-up procedures, as well as observations of hallway behavior, playground practices, and lunchroom habits. These observations included time before, during and after school over the course of the two-day site visit.

The next step in the study is to conduct similar case studies with a sample of elementary and middle schools, and normally this would be completed before a cross case analysis is conducted. However, a preliminary cross case analysis has been conducted on the five high schools, and this analysis appears in this report, following a description of each individual case study findings.

Site 1: High School Level Report

Site 1 school serves approximately 608 students in grades 9-12 from the towns of Eastbrook, Franklin, Gouldsboro, Hancock, Lamoine, Mariaville, Sorrento, Steuben, Sullivan, Waltham, and Winter Harbor, which are rural communities on the northeast coast of Maine. Approximately 52% of the student population is eligible for free and/or price-reduced lunch, 11.5% is identified as special education, and 2% of students have been identified as Limited English Proficiency.

MEPRI researchers visited Site 1 after speaking with Assistant the at an earlier date to prepare the schedule and gather additional information regarding the practices and characteristics of Site 1. In all, the team conducted meetings with teachers, staff, students, parents, and school and district administrators in both interview and focus group settings. Observations were conducted during classroom and non-classroom time. Student and staff handbooks, school and district curriculum documents, newsletters, student work, and school websites were reviewed to help paint a picture of the school as a whole. Researchers obtained additional information from the Maine Department of Education website and from a review of articles in local and regional newspapers over the past three years.

The following is a *description* of some of the data gathered from the site visit, interviews, classroom observations, and review of documents. These observations are organized into three distinctive features of More Efficient Schools, as referenced in the report, *More Efficient Public Schools in Maine: Learning Communities Building the Foundation of Intellectual Work* (Silvernail et al., 2012). The observations from this site visit are also categorized into four additional areas representing key features found in research literature about improving schools. This report does not provide a complete description of the school, nor of the many programs and activities provided to its students. Rather, it is designed to provide school staff and community a *snapshot* of some of the evidence this school demonstrated in the seven areas.

Characteristic #1: Student-focused learning communities in which there is systemic evidence of Intellectual Work. Intellectual work is demonstrated through three elements:

1. **Understanding:** focused, sustained and thorough academic (content knowledge and fundamental skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.
2. **Transformation:** constant inquiry using various reasoning processes and all levels of cognitive thinking to work with information and concepts in order to create innovative solutions.
3. **Sharing:** clear communication of invigorating conclusions that enhance existing ideas.

Research suggests that in More Efficient schools intellectual work may be demonstrated in the following ways: students engaging in academic knowledge and skills as well as social and behavioral learning; and adults creating instructional practices, curricula, professional learning programs, and leadership roles that improve student performance and are informed by assessment and experience.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- o *Classroom instructional practices reflected a primary focus on understanding the academic content.* 53% of classroom observations (n=30) identified a majority of students demonstrating "understanding" a majority of the time. {Note: According to the Center for Authentic Intellectual Work's *Teaching for Authentic Intellectual Work: Standards and Scoring Criteria for Teachers' Tasks, Student Performance and Instruction* (Newmann, King and Carmichael, 2009), the goal for a high quality learning experience is to engage all students in activities which have higher order thinking (i.e. "transformation") as their primary tasks 60% - 100% of their learning time and lower order thinking (i.e. "understanding") 0% - 40% of their learning time.} While 27% of classroom observations indicated that the primary expectation of the learning activity was "transformation" , 17% of observations indicated that the learning task required a "mixture of transformation & understanding". It was noted in some observations that the learning task required students to use transformative thinking skills such as compare/contrast, analysis, evaluation and application of new learning in order to draw invigorating conclusions about the content. Some instructors were also observed using higher level questioning (How? Why? In what way? etc.) in the

facilitation of class discussions and individual conferencing. In a majority (63%) of observations, “all” or “all except a few” students were engaged in the learning activity.

- *Adults have engaged in intellectual work that provided a foundation for deeper examination of programs and instructional practices intended to improve student performance.* The NEASC self-study (Site 1 school was accredited in 2010) required of all stakeholders a self-reflection that paved the way for change. According to the assistant superintendent, the NEASC process “taught us how to go through the process of change” and led to more clarity about instruction. Administrators and teachers have also maintained an in-depth teacher evaluation system – despite significant administrative turnover within the past ten years – based on Charlotte Danielson’s domains of teaching (*Enhancing Professional Practice: A Framework for Teaching*, Danielson, 2007 second edition). Teachers developed action plans each year and administration mandates improvement plans for struggling teachers (probationary and veteran). As a result of this evaluation process, teachers were expected to observe their peers’ classrooms. Together with the recent implementation of a Peer Coaching program, the teacher evaluation system helped to create an “open door” culture that invited conversation and collaboration among teachers and ultimately, a deeper examination of practice. Teachers, students, and administrators also indicated an increased focus on writing across the curriculum as the result of a district wide literacy initiative and implementation of the Maine Content Literacy Project in 2007-2008. A team of teachers – at least one from each department plus one administrator – was trained to provide faculty with a “toolkit” of content literacy strategies and ongoing professional development. As a result of systemic implementation, the use of literacy strategies as part of classroom practice across content areas helped to establish a common language surrounding literacy. Other work adults engaged in that has appeared to lay the groundwork for change and improvement included “pockets” of educators in various content areas. For example, the adoption of the Carnegie math program in 2006 that featured common curriculum and assessments appeared to demand high levels of cognitive thought from both teachers and students. Despite a high turnover in the math department, teachers indicated that they were committed to successfully implementing and maintaining this program. Additionally, an “infusion” class of social studies and English provided teachers with a valuable intellectual process for reflection, evaluation, and collaboration on craft, pedagogy, and curriculum. (The program, which served approximately 60 “at

risk” students [special education and regular education], was replaced in March 2012 by the Alternative Education program that served 12 students and allowed less time for collaboration, according to teachers). With the School Improvement Grant (SIG) this year, the school was able to establish a clear, focused set of goals for its improvement process. With the formation of a Teacher Leadership Team, Peer Coaching program, and a Dean of Instruction position, our observations indicated a growing capacity for a deeper examination of instructional practice.

Characteristic #2: Student-focused learning communities in which there is systemic evidence of Equity. Research suggests that in More Efficient schools equity may be demonstrated in the many ways, including: teachers and leaders demonstrating their belief that they have a moral obligation to focus on the intellectual development of students as a means towards a better world; and high standards and high expectations held for all members of the school community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **considerable evidence** of this characteristic. For example:

- *A shared commitment existed among educators at the school to provide all students with equitable access to a quality education. Common curriculum for 9th graders in math for Algebra I and II and Geometry (Carnegie Learning Curriculum), science (Maine Physical Sciences Partnership), and, most recently, social studies and English (Springboard) allowed teachers more opportunity to collaboratively align academic expectations for students. A teaming model – two teams, “Thunder” and “Lightning,” at the 9th grade level – enabled teachers to meet regularly to collaborate and discuss the needs of their shared students. This effort reflected a commitment to refine curriculum as well as the ability to monitor more closely the academic progress of their students. According to teachers and guidance, since the implementation of the teaming model in 2007, data showed a decrease in failures in core classes among 9th and 10th grade students. Guidance indicated a commitment to the teaming model when designing student and teacher schedules. Additionally, Math 360 for 9th grade students and Read 180 for 9th and 10th grade were intervention programs that were offered daily (55 minutes) to address skills gaps. Other academic supports included 9th grade academic detention required for students missing work from core classes, Guided Study offered daily for all students, PLATO program used for credit recovery, and after school tutoring in English and math (from teachers) two days a week. The district provided after-school bus transportation Monday through Thursday. Systemic*

programs included the district's literacy initiative sponsored by the Maine Content Literacy Project. Since its implementation in 2007, the use of literacy strategies as part of classroom practice across content areas has helped to establish a common language and expectations for students. Both teachers and students indicated a focus on writing across the curriculum with school-wide rubrics (often adapted by individual teachers to connect to specific content). Students gave examples of required conferenced drafts in history, chemistry lab reports assessed for writing ability, and a required research paper in Algebra II. While the school worked toward developing common academic experiences for their students, the school also had programs in place to address the diverse needs of their population. Through the district's Gifted and Talented program, which served 25-30 "high-achieving" and identified "gifted" students, and the school's "Infusion" course (combined English and social studies), which served approximately 60 at-risk students (now known as the Alternative Education program), special education and regular education students were provided with remediation, further instruction, and/or enrichment as a means to address specific academic needs. Additionally, the school's library provided Kindles and iPods in an effort to reach all kinds of learners, because as a librarian said, "A library is all about equity." A 1:1 laptop program (MLTI) and free dial-up home internet access reflected the district's technology team's focus on equity. Finally, a highly successful arts program – that included a well-established, award-winning show choir – offered students with a variety of stimulating courses. Approximately 40 students participated in this year's show choir that qualified for the national competition.

- *The Guidance Department at Site 1 played an active role in cultivating post-secondary aspirations.* Comprised of two counselors, a full-time licensed clinical social worker, and a full-time career counselor, the Guidance Department made a collective effort to be visible and available to students. In an effort to improve the transition from 8th grade to high school, Guidance offered a High School Choice Fair and Open House for all 8th graders from outlying towns and a separate presentation for Site 1 8th graders. Guidance also organized Step Up Day for all 8th graders to visit the high school for a day. During these presentations, guidance focused on how to be successful in high school as well as planted seeds for post-secondary plans. Guidance counselors greeted students every day in the school's lobby from 7:15 to 7:55 where they set up a table with various brochures advertising their services and information regarding PSAT/SATs, early college,

post-secondary pursuits and various enrichment programs. Students indicated also that the Financial Aid nights hosted by the Guidance Department were particularly helpful. The Early College program, offered to Juniors and Seniors, included the AcadeME program (online University of Maine courses for qualified students); Aspirations (classes offered through Eastern Maine Community College and the University of Maine at Augusta); and, just this year, AP for ALL. Students corroborated that the school had a “great selection of AP offerings.” According to a guidance counselor, “[There is] a generally accepted belief that all students will have a post-secondary plan.” The hiring of a post-secondary career specialist in January of 2011 (funded by FAME’s Maine Early College Grant to raise aspirations for targeted low income student population) made a difference for many “at-risk” or “first-time college-going” seniors. Students were identified to participate in the targeted counseling in the fall from student surveys completed during course registration and free and reduced lunch status. In 2011, 40 students were identified. Each student met weekly with the career specialist to develop an individual post-secondary plan. The career specialist met with the student and parents to discuss post-secondary options, college applications and the FAFSA form. The career specialist then shared student files (created on GoogleDocs) with Guidance to allow for each student to have a fully informed support team for their post-secondary plan. The school’s social worker said, “I can think of three kids off the top of my head who would not have considered college if it wasn’t for the career specialist.”

Characteristic #3: Student-focused learning communities in which there is systemic evidence of Efficiency. Research suggests that in More Efficient schools efficiency may be demonstrated in the following ways: human and financial resources are used efficiently to maximize learning opportunities for students and staff. For the purpose of this study of improving schools, we did not directly analyze the exact fiscal practices of the school. Rather, we are focusing on how school personnel and systems demonstrate the use of human and other available resources.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *The district and school leadership highlighted the strengths and needs of its community in order to receive grants and external funding for educational and professional programming.* The Guidance Department used grants from MELMAC and FAME to institute programs intended to raise aspirations for students such as Early

College and post-secondary career counseling. The district's use of Maine Laptop Technology Initiative (MLTI) grant led to a 1:1 laptop program with free dial-up home internet access for all students. In 2007, the school used Maine Content Literacy Project funds to provide professional development to teachers in the incorporation of content literacy strategies into their classroom instruction. This team of literacy experts, in turn, provided ongoing in-house professional training and support for all other teachers across content areas. Following their identification as a School Improvement School (SIPS), this year's School Improvement Grant (SIG) money was used to implement various reform initiatives intended to develop instructional efficacy and improve student performance. Teacher-leaders credited the assistant superintendent, who has been in the district 22 years, for significant, successful grant writing.

- *The district and school administration made efficient use of internal human resources to improve adult and student learning.* A comprehensive teacher evaluation system – based on Danielson's domains – used for the past six was credited for keeping strong teachers and encouraging ineffective teachers to leave. According to the assistant superintendent, the current staff was a core group of effective educators with a capacity for leadership. With past reform efforts (literacy, teaming, Professional Learning Communities [PLCs]) and the current SIG initiatives (Peer Coaching, Leadership Team, Project-based Learning), the district and school focused on "building internal capacity" by capitalizing on the talents and work ethic of teacher-leaders. The district and school supported professional development opportunities and ongoing training for teachers as a means to "build internal experts" that created more overall teacher buy-in. This strategy was particularly effective with the school's work with the Maine Content Literacy Project and Peer Coaching. Efficient use of teachers' professional time and expertise were also evidenced by the 9th grade teaming model that has been in place since 2007. Consisting of two teams of core classes, the teaming structure allowed teachers to meet regularly to discuss academic progress of shared students, collaborate on content and common expectations, and have frequent, consistent contact with parents.

Characteristic #4: A visible change symbolizes significant and sustained reform within the school. Research suggests that in improving schools this may be demonstrated in the following ways: "quick wins" within the first few months of initiating reform efforts to represent action and sincerity to the school community and

the community at large; positive, consistent public relations with community; and a clear message that the school's role is to "support education" not be the "sole source of education" within the community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **considerable evidence** of this characteristic. For example:

- *Site 1 became a more reflective community of educators committed to implementing sustainable improvement initiatives instigated by the NEASC self-study process.* Persistence and self-scrutiny paid off in the implementation of Freshman Academy, a 9th grade teaming model. The school tried two other times to implement the teaming structure without success. According to a veteran educator, the first attempt had not garnered enough teacher support; the second time, there had been persistent scheduling difficulties that diminished the vision of a true team model. Prior to the third and final attempt, a team of teachers visited other schools that had successful teaming programs and learned about effective implementation strategies. Prior to the teaming model, one veteran teacher recalled, 9th grade looked very traditional. "Remediation and at-risk resources were zero." Juniors and seniors were taking 9th grade courses over and over again. Since the program's implementation in 2007, the transition from 8th to 9th grade became more smooth; more academic interventions were put in place; and teachers had embedded time regularly to collaborate, discuss student progress, and make frequent contact to students' homes. According to teachers, administration, and guidance, a decrease in the number of failures at the 9th and 10th grade levels was attributed to the teaming structure. Skill-based and effort-based interventions were put in place to give students more time and/or instruction with content. Implemented in 2008, Guided Study, for example, was offered for all students. However, at the 9th grade level, teachers provided Guided Study at the same time across the grade level so students could access the teachers from whom they need the most help. Students were also identified (through test scores and teacher recommendations) for remediation in reading (9th and 10th) and math (10th only). Read 180 and Math 360 courses were offered every day to address skills gaps. The movement from a traditionally tracked system to heterogeneous classes also forced a focus on differentiated instruction. According to the team teachers, the embedded professional time allowed for collective reflection on instructional practice. The literacy initiative also brought about instructional reflection. In 2007, the Maine Content Literacy Project (through the University of Maine Farmington) provided professional development for a school literacy coach and a team of educators – at least one teacher from each department plus one administrator.

Under the leadership of the Literacy Coach, the Literacy Team provided initial training for teachers and ongoing professional support in the implementation of content literacy strategies. Faculty were given literacy “toolkits” that gave them immediate strategies to use as part of their instructional practice. The Literacy Coach also provided individual support for teachers on an as-needed basis during her planning time. According to the literacy coach and some teachers, this was a program with the most consistency and the most systemic outreach even though success was more anecdotal than quantitative. One teacher-leader who was also a member of the Peer Coaching and Leadership teams said that recent iWalkthrough observations indicated that literacy strategies were still being used across content areas. Teachers and students corroborated that writing across the curriculum was a focus. Students mentioned that writing skills were emphasized and assessed in a variety of classes, not just English.

- *The work done recently by administrative and teacher leaders with the School Improvement Grant funding reflected a clear, focused path toward thoughtful change. With a new superintendent, principal and Dean of Instruction in place, several initiatives were introduced just this year as a result of SIG to assist in the school’s turnaround plan. A Peer Coaching program used the format of peer observations to improve instructional practice. Through classroom observations, trained teachers collected data and shared it with their peers in an effort to create a collaborative culture around improving instructional practice. Data collected from over 800 iWalkthroughs and the subsequent examination of data gave teachers and administrators an insightful look at instructional practice across content areas. Under the guidance of the Dean of Instruction, Freshman Academy teachers used their professional time to align curriculum and come to consensus on academic expectations. A Leadership Team – consisting of many veteran teachers – ensured that the SIG vision was enacted, facilitated the SIG work, and reported progress to the School Board. The Team recruited eloquent, enthusiastic student representatives to help explain the steps taken and the changes brought forth by SIG. While there was little quantitative data to support the systemic effectiveness and sustainability of these initiatives in the first year, there was some anecdotal evidence of paradigm shifts. According to the school’s external coach who just arrived this year, the culture of professional reflection encouraged many teachers to “de-privatize their practice” for the first time. The assistant principal added that it was important to “knock down walls and get people in each other’s classrooms.” The assistant principal indicated that SIG has improved instruction. At the same time, there was concern about whether these efforts could be sustained. One*

veteran teacher expressed that this year was her “most tiring yet.” Other teachers indicated that SIG initiatives dampened collaborative work outside of 9th grade teams.

Characteristic #5: Focused, effective leaders throughout the school and district guide improvement. Research suggests that in improving schools this may be demonstrated in the following ways: leadership, students and other adults in the school community are focused on learning; building administrator's role is to lead instruction, not just manage the school; school leaders initiate progress then collaborate to sustain improvement; open and explicit feedback and evaluation is conducted constantly.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **considerable evidence** of this characteristic. For example:

- *A history of district support in “building internal capacity” and cultivating teacher leadership paved the way for a school improvement vision.* Current teacher leadership initiatives appeared to have stemmed from a pre-existing culture of internal experts and a willingness of teachers to “be part of the solution.” According to a Leadership team and veteran staff member: “We’ve had organized leadership for years.” Under the leadership of the former principal, several teachers became involved in leadership roles with various initiatives. According to a veteran staff member, the successful implementation of Freshman Academy in 2007 was “evidence of administrative support – district and school--of collaboration.” A team of teachers committed to the teaming model researched implementation strategies and visited schools that had successful programs. The district also supported the formation of Professional Learning Communities (PLCs) that necessitated regular, embedded professional development time for teachers to come together in purposeful collaboration. The NEASC self-study process was another opportunity for administration and several teachers to lead the school in reform. The assistant superintendent indicated: “NEASC brought clarity...and taught us how to go through the process of change.” One veteran staff member said of the self-study process: “We became reflective.” The school’s literacy program – a product of the Maine Content Literacy Project – was another example of an initiative that was administration-supported and teacher-led. A team of volunteer teachers (at least one per department) plus one administrator was trained (funded by MCLP) in content literacy strategies with the goal of providing teachers with professional development and ongoing support with Teacher Action Plans and goal setting. Teachers were given “toolkits” – a collection of

instructional strategies – as well as additional professional development during faculty meetings, district workshop days, and individual planning time. The literacy coach – a full-time English teacher – met with individual teachers on an as-needed basis. According to the school’s literacy coach, the literacy initiative was the program with the most consistency. Another veteran staff member corroborated that the literacy “toolkit” has had the most widespread impact on instruction across the content areas.

- *The district and school administration supported and capitalized on teacher leadership in order to effect change.* When the previous principal and superintendent left in 2011 after the school was identified as a SIP school, “teacher leadership emerged” in spite of district changes. As one veteran staff member explained when she and other veteran teachers considered their role in leadership, “Were we going to be part of the solution?” With a new superintendent, principal, and Dean of Instruction, several initiatives were instituted during the first year of SIG. For example, under the direction of the Dean of Instruction, the Peer Coaching program used trained volunteer teachers as catalysts for reform in instructional practice. Teachers conducted peer observations, collected data, and shared data with peers in an effort to examine classroom instruction in a deeper way. The Leadership Team consisted of several volunteer teachers – many of them veteran staff – who ensured the SIG proposal was enacted, oversaw that work, and reported progress to stakeholders. PLCs and Freshman Academy – initiatives already in place – had been the focus of readjustment and deeper reflection of practice. PLCs were now organized by content areas and given directives by the Dean of Instruction; Freshman Academy teachers used their collaborative planning time to realign curriculum and build consensus on academic and behavior expectations. Additionally, a handful of teachers were also piloting Project-based Learning in their classrooms. Building leadership appeared to be supported by staff. The current principal was commended by some teachers as an “encouraging force in pulling together teacher-leaders” in the school’s efforts to implement the SIG plan. The principal – the school’s former assistant principal-- was also cited as being a good source of encouragement for staff and one who “creates buy-in.”

Characteristic #6: Thorough and sustained learning is provided for school professionals. Research suggests that in improving schools this may be demonstrated in the following ways: regular professional learning time for all classroom practitioners

to work collaboratively and independently; professional development focused on instruction and building intellectual capacity; external learning opportunities utilized to develop internal experts.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *There was an embedded structure that accommodated regular professional learning time for classroom practitioners to work collaboratively and independently.* As previously noted in this report, a team of teachers researched the idea of a teaming model and visited schools to examine what it looked like in practice and how to successfully implement such a model. With two 9th grade teams successfully in place since 2007, the 9th grade teaming model – referred to as Freshman Academy – included regularly scheduled collaboration time for teachers. Teachers met five times a week: three times as a team to discuss students and team issues; once a week with a content counterpart; and once a week with the other team. According to guidance counselors, this model – shared students with embedded professional time – continued to be “sacred” in the scheduling process. Outside of the 9th grade team, however, there appeared to be little time for cross curriculum collaboration within the regular schedule. Yet, Professional Learning Communities, organized by content areas and met every Friday during early release, did provide some time for all teachers to discuss practice and share ideas. Additionally, technology professional development was provided for 2-3 days at the start of the year; then, tech support was available “on call” during teachers’ prep time (subs were provided if a teacher had no prep) to assist with webpage setups and administrative programs. Additionally, monthly training was offered for the use of specific tech programs. Staff could request individual help with a “ticket” system: they would submit ticket request to set up an individual help or in-class session.
- *The SIG initiative provided purpose for professional development with a focus on instruction and building intellectual capacity.* For 9th grade teachers, collaborative time has had a deeper focus on curriculum and instruction under the recent directive of the Dean of Instruction. Teachers worked on aligning curriculum and developing consensus on academic expectations. These conversations were rooted in their reading of Rick Wormeli’s *Fair Isn’t Always Equal*. PLCs have also recently been given instructional focus. For example, to guide student learning, teachers began using an inquiry-based approach to lesson and unit design. Several of our observations indicated “Essential Questions” written on the board that were referred to by the teacher throughout the lesson. The assistant principal explained

that the PLC protocol provided feedback and accountability for teachers with an additional focus on “relationships and teambuilding.” Efforts to build intellectual capacity were evidenced by the work with Maine Content Literacy Project. As mentioned earlier in this report, MCLP provided training for a team of teachers, instilling in them an expertise on content literacy strategies. In turn, they would provide professional development for their peers, with ongoing support. The school’s literacy coach—not a stipended position but compensated with an extra planning block—oversaw this work and met with individual teachers on an as-needed basis. The Literacy Team shared literacy strategies during faculty meetings and workshop days and ensured that new faculty (especially in 2011-2012 as there were 16 new teachers) received training and literacy toolkits. A district focus on writing prompted further professional training for the Literacy Team and brought about the development of school wide writing rubrics and writing across the curriculum. Developing internal experts was also the goal for the school’s Peer Coaching program. Under the direction of the Dean of Instruction, the program is designed with a clear focus on improving instruction. Five volunteer teachers were trained to do peer observations and data collection. Then, they would share this data with peers as a mean of creating a collaborative, non-evaluative culture that reflected regularly on instructional practice. The training was rooted in the peer coaching philosophy founded by Jim Knight (“Impact Schools”), of the University of Kansas Center for Research on Learning and the president of the Instructional Coaching Group. Peer coaches used data collection tools during observations. These tools then helped teachers identify goals for instructional focus. Peer coaches received no stipend for this work but had an extra prep block.

Characteristic #7: The school focus holds steadily on student and adult learning.

Research suggests that in improving schools this may be demonstrated in the following ways: a pedagogical emphasis on improving student learning; protected, focused learning time for all students; student learning emphasis on depth of core skills (reading, writing, numeracy and thinking); "a laboratory of adult learning" developing cognition and intellectual capacity among educators and leaders.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *Protected, focused learning time for all members of the school community provided opportunity for improved student performance and instructional efficacy.* As mentioned earlier, the Freshman Academy team schedule allowed for teachers to meet

collaboratively five times a week and for students to have a guided study with a team teacher. Guidance indicated that the 9th grade team was considered “sacred” in the scheduling process. All other students had a Guided Study every day; three days a week, students had structured time to do homework or meet with teachers while the other two days were spent doing SAT/PSAT prep, health, or other advisory-related work. Additionally, math and English teachers were available after school two days a week for additional help. Freshmen were assigned an academic detention after school if they missed work or needed further instruction. Outside of the time provided for 9th grade team teachers, early release time every Friday was designated for all teachers to engage in PLC work. Groups met regularly for peer feedback and support with improving instructional practice. Organized cross curricular in past years, PLCs were organized by content area with support staff integrated starting just this year. One education technician working in a science class attested to the willingness of regular education teachers to collaborate on a professional level with support staff. As a result of this collaboration, she felt “in the know” regarding the curriculum in each classroom she served.

- *A content emphasis on improving core skills and a pedagogical emphasis on improving instruction was considered key to improving student performance. As referenced often in this report, the school’s work with MCLP (and the district’s focus on writing) was evidence of a learning emphasis on core skills. Students corroborated the systemic impact of writing across the curriculum as they cited examples of writing assignments in history, chemistry, and Algebra II. To address skills gaps as determined by test scores and teacher recommendations, 9th + 10th grade students attended a literacy workshop (Read 180) offered every day for 55 minutes. {Note: Until this year, students could potentially opt out of the recommended literacy course.} For 9th graders only, additional, intensive math instruction (Math 360) was offered daily as well. For Algebra I & II and Geometry, the Carnegie math system included a skills-based intervention program called Cognitive Tutor. Our observations showed that students work independently with the computer program within the classroom following each unit. Teachers were available for additional instruction if students needed. Prior to the SIG year, the goal of improving student learning had been an objective reflected in some strategies and initiatives already in place. The assistant superintendent indicated that “NEASC brought clarity” to instructional focus for all students. As well, the teacher evaluation system with mandatory improvement plan required underperforming teachers to improve and learn or move on. Further, the MCLP initiative was*

implemented across the curriculum to improve student performance in reading and writing. However, much of the school's focused work with improving instruction appeared to be directives of the current SIG initiative. The assistant principal pointed out that SIG had improved instruction and that the "school is very accessible to students." As described previously, PLCs and the Peer Coaching Program provided teachers with focused, purposeful strategies for a reflection of practice. Freshmen Academy teachers were in the process of aligning curriculum and discussing practice to improve the efficacy of the team model. Other piloted programs included a Project-based Learning model and the use of iWalkthrough data to assist in examining practice.

Conclusions

Many wonderful practices were evident during the visit to Site 1 High School. In the research literature, some common distinguishing characteristics of Improving Schools include: visible change; focused, effective leadership; thorough, sustained professional learning; and a school focus of both student and adult learning. The research also identified key elements for sustaining successful school improvement, including: common language and vision; interventions for underperforming and excelling students; data analysis; sustained, dedicated resources; intellectual capacity; and district-level support. Site 1 High School exhibited some of these characteristics and elements of an Improving School during our two-day visit and in our review of documents, interviews, classroom observations, focus groups, and conversations. The strongest and most pervasive of these attributes included:

- *In their efforts to improve instruction, curriculum and student performance, individual educators and administrators demonstrated a strong potential for leadership in developing and maintaining cross-curriculum and content area collaboration.*
- *A school focus on developing professional learning opportunities and improving student performance has led to a comprehensive effort toward overall school improvement.*

More Efficient Schools, as defined in the first phase of this multi-year study, are student-focused learning communities in which there is systemic evidence of **intellectual work**, **equity**, and **efficiency**. Site 1 High School exhibited some of these features of More Efficient Schools during the two-day visit and in the review of documents, interviews, classroom observations, focus groups, and conversations. The strongest and most pervasive of these attributes included:

- *A solid understanding of content knowledge combined with a growing capacity for transformational work was demonstrated by both educators and students.*

- *Initial efforts had been made to provide collaborative opportunities for educators that resulted in shared academic experiences for students and improved instructional practice.*

Site 2: High School Level Report

Site 2 High School, a higher performing and improving school is part of a MSAD and serves approximately 740 students in grades 9-12 from Maine towns that are rural and suburban riverside communities in central Maine. Approximately 21.5% of the student population is eligible for free and/or price-reduced lunch, 17% is identified as special education, and one student has been identified as Limited English Proficiency.

MEPRI researchers visited the school after meeting with the principal at an earlier date to prepare the schedule and gather additional information regarding the practices and characteristics of the school. In all, the team conducted meetings with teachers, staff, students, parents, and principal in both interview and focus group settings.

Observations were conducted during classroom and non-classroom time. Student and staff handbooks, school and district curriculum documents, newsletters, and websites were reviewed to help paint a picture of the school as a whole. Researchers obtained additional information from the Maine Department of Education website and from a review of articles in local and regional newspapers over the past three years.

The following is a *description* of some of the data gathered from the site visit, interviews, classroom observations, and review of documents. These observations are organized into eight key characteristics, which are often referenced in education research literature to describe higher performing schools. These individualized observations, which are intended to summarize key and illustrative points of the field research, are communicated to support your on-going efforts.

Characteristic #1: High standards and high expectations are held for all. Research suggests that in higher performing schools this may be demonstrated in the following ways: high standards are communicated, understood, and expected for all students; all members of the learning community are aware of these academic and social targets.

Through our observations, discussions, and exploration of policies and practices at your school, we identified considerable evidence of this characteristic, for example:

- *Consistency of high standards and expectations by the teaching staff was something that was stated and which the school strived for in multiple ways.* Similar to most high schools accredited by the New England Association of Schools and Colleges (NEASC), Site 2 has a mission and clearly identified academic, social and civic

expectations that were created collaboratively with faculty and community. The school communicated standards and expectations in writing in key documents, including the entire first half of the faculty handbook, which laid out global and specific curricular, instructional and behavioral expectations for teachers. Beyond what was written, the school took advantage of multiple opportunities to communicate standards and expectations and to make them real for teachers so that they would communicate them consistently for students. School-wide rubrics were clear for the five academic expectations with a detailed chart in the faculty handbook detailing primary and secondary responsibility. New teachers were mentored by the department heads and other teachers to set high and consistent expectations. All freshmen teachers also taught at least one upper level class to help them to raise the bar with freshmen. Faculty advocated in staff meetings for “Students of the Quarter” describing student qualities and actions in line with school-wide expectations. As one staff member noted, “We have common expectations...they are pretty well verbalized, and I have the feeling that people in all positions really subscribe to what we are trying to do. That makes a real difference.”

- *Faculty had a sense of standards and expectations and took action when challenges were noted.* From multiple discussions, review of materials and observations it appeared that each department had done something new every year for the past several years to improve instruction. This was not by edict, but as one department chair noted, “We are doing O.K., but what can we do better?” adding, “Never be satisfied.” This was also demonstrated by a group of teachers concerned that the current ninth grade students as a class were not meeting expectations and began an effort to gather staff after school for solution finding leading to revised planning and support for current ninth grade students.
- *It was a shared expectation that students read and write across the curriculum and that teachers develop the skills to support student growth in literacy.* Students reported that they read and write across various content areas on a regular basis. Students described writing out explanations in math, being guided on how to take effective notes in science and social studies and writing finished essays weekly in English. Students from all grade levels, including students attending classes at United Technology Center, reported being required to read daily in class and discussing or being quizzed on their reading. Students also reported understanding that they would be required to take additional “Reading” courses if assessment scores were not high enough. Teachers reported, and we observed at a staff meeting, that they have received ongoing support and professional

development enabling them to better support student growth in this area so critical to overall student success.

Characteristic #2: Leadership is effective and collaborative. Research suggests that in higher performing schools this may be demonstrated in the following ways: the decision-making process is clear and focused on enhancing the learning of all students; members of the school community work collectively; conflicts are handled skillfully and respectfully.

Through our observations, discussions, and exploration of policies and practices at your school, we identified extensive evidence of this characteristic, for example:

- *There appeared to be wide agreement in the community that the current principal and assistant principal maintained an effective and vigilant focus on ensuring that Site 2 positively impacted students. We heard from a number of teachers about the principal's big question, "Is there value added when students come to Site 2?" and how this served to focus faculty effort on meeting student needs. One comment summarized what we heard from staff from all areas and from parents, "Administration is certainly committed to us being successful and students being successful, looking at ways to improve student performance...looking at how teachers teach, what do students need, how are we going to provide for this group of students that is already high performing, what are we going to do for these students who area struggling, looking at how we can meet those needs."*
- *Site HH developed a leadership structure that invited a broad group of faculty into leadership roles to meet the challenges faced by the school. There were a number of teams with overlapping faculty membership that took leadership roles in the school. The Department Heads, focusing on academic practice and policy issues, expanded in responsibility under the current principal. While previously just handled department budgets, they now provide greater academic oversight and by their report have much more input into school issues. There was also a Faculty Council focusing on school culture issues, an Response Team to support struggling students, a Data Team, an RTI Leadership Team, an I-Walk Through Team and a Transitions Team to guide the move to their new building. As one teacher noted, "Leadership takes on a variety of looks at Site 2" and the principal noted her role as connector of the various groups and efforts and commented, "We are all pulling on the same rope, but we are looking at things from a different angle and that makes it richer."*
- *There was consistent leadership at the school and district level that worked hard to support excellence in teaching and was willing to make difficult calls regarding*

employment. While the current principal had “only” been at Site 2 since 2002, she served in the district in a range of positions since 1986, having worked closely with the superintendent for most of those years. The current assistant principal has been at Site 2 for forty years. Teachers reported that school and district leadership tried to make things work for the school with comments like, “the attitude is that yes, there are obstacles, but we’ll work it out, we’ll get it done,” and “very good at being supportive of teachers,” and “the administration supports all aspects of extracurricular activities. The arts were supported as much as the sports.” Teachers also noted that, “We’re held to high expectations...and collectively we have high expectations of each other” and “it quickly becomes known to the new teacher in the building that it is expected that you do a good job.” In the past five years, twenty teachers were hired using a team process with significant teacher involvement with questions developed by the school and district looking for particular characteristics and often a sample lesson performed on the second interview. After hire, the decisions to move from year one to year two probationary and then to continuing contract were taken very seriously with a number of new hires not being recommended. Also, the school and district worked through non-renewal for continuing contract teachers who were consistently not meeting the expected standard of performance.

Characteristic #3: Curricula and instruction engages students in a wide range of meaningful learning experiences, in which teachers guide and facilitate student learning and multiple types of interventions and adjustments are made to meet student needs. Research suggests that in higher performing schools this may be demonstrated in the following ways: a focused and consistent curriculum; students are highly engaged in rigorous and relevant activities; a variety of interventions are used to ensure student progress.

Through our observations, discussions, and exploration of policies and practices at your school, we identified extensive evidence of this characteristic, for example:

- *A school-wide focus on literacy was evident from classroom and faculty meeting observations as well as reported by principal, teachers, students and parents. A science teacher noted, “We have made a concerted effort to develop literacy across the curriculum. There are certain practices we now do that we didn’t do before: frontload vocabulary, create vocabulary walls, text previewing before we ask kids to read, then talk about what they see in the text.” Students also reported that reading and writing happens across content areas with reading daily in class,*

frequent note taking, and essays often weekly. Addressing this focus, students in upper-level English classes, recently began a student-staffed Writing Center. Special Education teachers also indicated that they see all departments using literacy language across the school and find this especially helpful for students with special needs. Various literacy intervention courses have been added in the past few years and are required for certain students based on demonstrated levels of proficiency: Reading and Math Seminar, Reading and Math Targeted Intervention, and Senior Critical Reading Elective. Frequent sharing opportunities about best practices were available and embraced during the faculty meeting and seen being implemented in classes the following day.

- *Site HH provided a variety of curriculum opportunities for students, based on skill level and areas of interest.* Within the regular course offerings, students enjoyed the choice in Senior Electives, Family & Consumer Science, Woodworking, and numerous A.P. courses. Students could supplement this curriculum with courses from Virtual High School, Early College for ME as well as some summer courses offered by HA to redeem credits in some Sites or accelerate in preparation for A.P. courses. Students and parents spoke highly of the United Technologies Center opportunities for vocational education, and students also participated in the Eastern Maine Development Corporation's "Work Ready" program that provides (at no cost to the school) internships and career education. Students, parents, and teachers also indicated that use of textbooks at multiple reading levels within a single course, PLATO Learning (online courses), and ALEKS (online math program) provided important support for student learning.
- *A high level of teacher engagement with students during class time was both observed and reported by students, teachers, and parents.* Personal interaction, intervention, and instruction during class time was valued by the entire school community. Students indicated and classroom observations supported that textbooks and worksheets were most often used just as a support tool, while the majority of class time was spent through lectures, note taking, discussions, whole-class problem solving, and modeling. Especially in math courses, a great deal of class time was spent working through problems and corrections as a class with the teacher coaching or instructing. 49% of classroom observations (n=69) indicated that 91% or more of students were engaged; 78% of classroom observations indicated that 76% or more of students were engaged. 16 observations identified students working at the Remember/Understand level of Bloom's Taxonomy; 17 observations identified students working at the Apply level; 3 observations identified students working at the Create level; 23 observations identified students

working at Analyze/Evaluate level; 10 observations (including study halls) identified a varied level of Bloom's Taxonomy.

Characteristic #4: Assessment data is examined, shared, and used in the school; student mastery of competencies is assessed with a range of formative and summative assessments that are rigorous and valid. Research suggests that in higher performing schools this may be demonstrated in the following ways: curriculum development, instruction, and intervention are informed by student performance; data is shared with students, parents, and community in an appropriate manner; appropriate assessment tools are selected and/or developed.

Through our observations, discussions, and exploration of policies and practices at your school, we identified considerable evidence of this characteristic, for example:

- *Curriculum and student course selection was informed by common assessments and rubrics.* Faculty handbook outlined five school-wide rubrics. An English teacher indicated, "We are still working on [common assessment tools] but the writing rubric and oral presentation rubrics have been put into place in the last few years but we're still developing that. It needs to be broken down into smaller steps, grade-level expectations." Course placement in English is based on semester grade, school-wide writing assessment, and teacher recommendation. In math, all Algebra I teachers use common chapter tests. They meet as a group to review student performance and examine instructional practices. Teachers also reported that they refer to PowerSchool to review common assessments and grades when talking with students about goals in Academic Advisory.
- *All teaching staff and administrators had a solid awareness of student performance from various assessments given to students.* Students took NWEA in fall and spring, with selected students who were struggling taking it in the winter as well. Students in 9th grade took the AIMSweb and MAZE three times per year. Students in certain programs also took the Accuplacer and ASVAB. TeenScreen (a mental health survey) and CHOICES (a career preference survey) was also administered to students by guidance. Time was provided for teachers to review assessment results, and the Site HH Data Team (consisting of teachers, guidance, and administrators) met regularly to analyze data from these assessments as well.

Characteristic #5: Professional learning is effective and primarily focused on improving student learning. Research suggests that in higher performing schools this may be demonstrated in the following ways: informative, focused professional learning is supported at all levels, from the classroom to the district office.

Through our observations, discussions, and exploration of policies and practices at your school, we identified extensive evidence this characteristic, for example:

- *Site 2 incorporated insights, ideas, and practices focused on improving student learning shared by a variety of staff members.* As mentioned above, Site 2 involves a number of teachers in leadership roles through various committees: iWalkthrough, Data Team, Faculty Council, Department Heads, Transition Team, RTI, etc. Staff reported that they were willing to serve on these committees because their work and ideas were valued and implemented. There were frequent opportunities during faculty meetings, department meetings, and in-service days to share findings. For example, the iWalkthrough Team was trained to do iWalkthrough classroom observations, given release time to conduct observations, analyzed data, presented to the faculty, set goals, then conducted further observations. Another example was a group of Special Education staff members conducted a model IEP meeting in fishbowl format at a faculty meeting to demonstrate methods for improving teacher involvement and contribution.
- *Professional development time appeared to be used efficiently and with a focus on student learning.* A teacher noted that teacher presentations in the faculty meeting starts the conversations and keeps us focused on the goal of improving student learning. Our observations identified the regular faculty meeting as a focused, efficient use of time with a majority of the time committed to targeted professional learning. It included expert shares of best practices, Student of the Month discussion, and group analysis of Mike Mattos' Pyramid Response to Intervention. Teachers and administration indicated that the meeting we observed was reflective of their regular format and content for faculty meetings. Teachers also indicated that department meetings were similarly useful, "In our department meetings we have meaningful conversations about instruction: what is good instruction, what is not." While teachers shared the universal wish for more time to collaborate, they said they felt they really had a meaningful role in school improvement.

Characteristic #6: Community members, the school committee, and district leadership are engaged in improving student learning. Research suggests that in higher performing schools this may be demonstrated in the following ways: all stakeholders are informed supporters of on-going instructional improvement.

Through our observations, discussions, and exploration of policies and practices at your school, we identified considerable evidence of this characteristic, for example:

- *Site 2 taxpayers demonstrated strong support of Site 2 in the process of building a new high school to serve the needs of students and the communities it serves.* Recently, the

community voted to bond six million dollars beyond what the state would fund for a new school in order to build the school that they determined they needed for their community. The additional funding will allow for larger science classrooms that meet national standards for size, a nine hundred-seat auditorium and construction of a larger gym. We heard a great many statements of pride as parents, students and staff describe Site 2.

- *Both on a school-wide and individual student level, there was strong communication with parents and community.* The school's website provided students, teachers, parents and the community with extensive information and tools to support student learning and to keep up to date with events and projects taking place at the school. Site 2's other printed materials, such as the Student Handbook and the Course Guide, were clearly written and focus first and foremost on expectations for student learning, both academic and social. The school also hosted a curriculum night for eighth grade students and parents to introduce them to the high school, "dessert and discuss" evenings for parents regularly attended by 40-60 people and an interactive open house. Parents and students described in detail why and how they access PowerSchool to get current information about grades and assignments. From a number of focus groups and interviews it also appeared that teachers and school staff regularly contacted parents with positive news as well as with concerns and speak of the critical importance of developing trusting relationships between school and families.
- *The school actively cultivated community partnerships on a range of levels both to be of service to students and for students to be of service to the community.* The Response Team (HART), a multi-disciplinary student assistance team that met weekly, actively pursued funding and partnerships with outside agencies to expand programmatic supports for students. Site 2 also developed collaborations with the Eastern Maine Development Council to provide career preparation and internship services, University of Maine at Orono's program called "Innovations" to stimulate interest in science, technology, engineering and mathematics fields and a national service organization of architecture, engineering and construction management professionals (ACE) to provide mentoring and project-based learning for students. Site 2 was also proud of the level of community service in which students engaged, including a teacher apprentice program with neighboring elementary and middle schools and a school-wide effort to assist the Bangor Homeless Shelter through fundraising and volunteering.

Characteristic #7: School culture fosters strong, respectful, and equitable

relationships for all. Research suggests that in higher performing schools this may be demonstrated in the following ways: policies and practices of the school provide equitable access to learning that provides opportunities to meet high standards; school presents a safe, welcoming, and healthy environment in which all students are known well.

Through our observations, discussions, and exploration of policies and practices at your school, we identified considerable evidence of this characteristic, for example:

- *Many students at Site 2 were supported and recognized for their involvement in the school community in a variety of ways.* A large percentage of students indicated they were involved in school extra-curricular activities such as athletics, music, drama, clubs, etc. While athletics was certainly a successful aspect of the school, the drama coach said, “The administration supports all aspects of extra-curricular activities. The arts are supported as much as the sports.” All members of the school community (students, staff, administration, parents, etc.) spoke with pride about the wide variety of extra- and co-curricular opportunities and achievements of numerous students. While advocating for Student of the Quarter, teachers often referenced the student’s involvement in lesser-known clubs or outside community activities, demonstrating their awareness of the child as a whole, even beyond the walls of the school.
- *Diligent work by the school staff to connect with every student on some level was evident.* A strong aspect of preventing students from falling through any gaps was the Site Response Team (HART) mentioned above. HART was made up of various school staff members and 8th grade guidance counselors and met weekly for at least one hour to discuss students demonstrating risk factors. There was also discussion of selecting students for Student of the Quarter at the faculty meeting, which included students who had struggled and made significant improvement or students possibly unnoticed for their silent efforts. The school began an Academic Advisory program with grade-level goals and served as another place for students to make a connection with faculty outside of academics. Even the Friday night detention was run (by the same teacher for the past eight years) as an intervention opportunity instead of simply a punishment. A teacher said, “Students make choices. Sometimes they make bad choices; sometimes they make good choices. That doesn’t make them good or bad students...If they’re in detention, they made a bad choice. And we try to help them learn from those choices and move in a different direction and make better choices.” Staff was working diligently to make

sure all students felt a connection and was known well to at least one adult in the building.

Characteristic #8: Resource use is equitable and effectively supports student

learning. Research suggests that in higher performing schools this may be demonstrated in the following ways: decision-making at all levels is driven by the goal of supporting the achievement of high standards by all students; focused strategies meet the school's ongoing program development and improvement goals connected to student learning.

Through our observations, discussions, and exploration of policies and practices at your school, we identified some evidence of this characteristic, for example:

- *The district implemented the Nutri Kids Point of Service (POS) system four years ago doubling utilization of meal services, which enabled Food Services to run in the black after years of running in the red. The district was also persistent about signing students up for free or reduced price lunch adding a few each month district-wide after the start of the year. Also, running three 25-minute lunches increased meals served and a la carte sales while reportedly leading to more relaxed lunch periods.*
- *The district and school have pursued creative and thoughtful actions that increased efficiency and protected learning opportunities for students. The district continually took many steps – such as joining regional collaborations for purchasing oil and Workmen's Compensation insurance, bidding out transportation services for price and predictability of expense, and cutting non-core areas – to save money while still protecting classroom instruction and programs believed to add high value to the school. The school developed a partnership with Acadia Hospital to share a substance abuse counselor and a social worker who staffs the school's drop-in counseling center.*
- *Some restructuring and staffing decisions have improved efficiency of administrative work in guidance and the front office. The guidance office began a three-year restructuring in the organization of their department, maintaining the same staff levels but reducing student Siteload for a director so he/she could take on more planning and administrative work. The current director indicated that this allowed more focus and clarity in their own schedules as well as their availability to students. The front office administrative assistants both indicated being very comfortable with technology and had prior experience in the business sector, which appeared to allow them to use data management programs in an effective manner and apparently streamline some methods of record-keeping.*

Conclusions

Many practices were evident during our visit to Site 2. The strongest and most pervasive elements we saw in our review of documents, interviews, classroom observations, focus groups, and conversations during our two-day visit of your school included:

- *Student-focused practices and beliefs that were evident in professional development pursuits, classroom practices, leadership goals, and the general atmosphere of the school.*
- *A solid awareness of student academic performance across the curriculum through school-wide and individual data collection, analysis, reflection, and action.*
- *The school not only communicated high expectations and clear standards, but also took positive action to meet challenges when it was perceived that they as a school were falling short.*
- *School leadership, facilitated by the principal, is collaborative, inclusive and focused on taking strategic actions to ensure better results for all students.*

Site 3: High School Level Report

The Site 3 school is part of a MSAD and serves approximately 220 students in grades 9-12 from the towns of Addison, Columbia, Columbia Falls, Milbridge, Harrington and Cherryfield, which are rural communities near the northern coast of Maine.

Approximately 69% of the student population is eligible for free and/or price-reduced lunch, 16% is identified as special education, and 6% of students have been identified as English Language Learners

MEPRI researchers visited Site 3 High School after speaking with the principal at an earlier date to prepare the schedule and gather additional information regarding the practices and characteristics of the school. The team conducted meetings with teachers, staff, students, parents, and school and district administrators in both interview and focus group settings. Observations were conducted during classroom and non-classroom time. Student and staff handbooks, school and district curriculum documents, newsletters, student work, and school websites were reviewed to help paint a picture of the school as a whole. Researchers obtained additional information from the Maine Department of Education website and from a review of articles in local and regional newspapers over the past three years.

Characteristic #1: Student-focused learning communities in which there is systemic evidence of Intellectual Work. Intellectual work is demonstrated through three cognitive practices:

4. **Understanding:** focused, sustained and thorough academic (content knowledge and fundamental skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.
5. **Transformation:** constant inquiry using various reasoning processes and all levels of cognitive thinking to work with information and concepts in order to create innovative solutions.
6. **Sharing:** clear communication of invigorating conclusions that enhance existing ideas.

Research suggests that in More Efficient schools intellectual work may be demonstrated in the following ways: students engaging in academic knowledge and skills as well as social and behavioral learning; and adults creating instructional practices, curricula, professional learning programs, and leadership roles that improve student performance and are informed by assessment and experience.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *In many classroom activities, students and teachers were engaged in tasks that demonstrated understanding of the academic content knowledge. 88% of classroom observations (n=32) identified a learning activity with at least some expectation of demonstrating "understanding" a majority of the time. 50% of classroom observations identified of students demonstrating "understanding" a majority of the time. {Note: According to the Center for Authentic Intellectual Work's *Teaching for Authentic Intellectual Work: Standards and Scoring Criteria for Teachers' Tasks, Student Performance and Instruction* (Newmann, King and Carmichael, 2009), the goal for a high quality learning experience is to engage all students in activities which have higher order thinking (i.e. "transformation") as their primary tasks 60% - 100% of their learning time and lower order thinking (i.e. "understanding") 0% - 40% of their learning time.} While 41% of classroom observations indicated that the learning activity had some expectation of "transformation", 41% of classroom observations also indicated that the learning task's primary expectation was that students demonstrate "understanding". In the majority of observations, students and teachers demonstrated an accurate understanding of the information and knowledge being discussed.*
- *Conversations with various teachers suggested that there was a significant intellectual capacity within the adult educators to think critically about the craft, pedagogy and content of teaching. Common rubrics (including writing rubric used across the*

content areas) had been internally developed by school educators that reflected an expectation that students demonstrate transformation in order to meet and exceed the standards. A student said, "[Rubrics] are used a lot. We use the writing rubric in biology research papers as well as research essays for Photo, Art, Spanish and of course English." A parent agreed, "School-wide rubrics are systemic, not just in English." Assessment of student learning, such as graded assignments and progress evaluation, (especially in English, Art, Science, Math and the self-contained Special Education classroom) upheld these standards, appeared rigorous, and reflected the expectation that students demonstrate transformation to meet the standards. Although minimal time for professional collaboration was provided during the contractual day, educators were evidently dedicated to engaging in analytical and evaluative conversations with their professional peers when possible.

- *Classroom activities that thoroughly engaged students in transformation, substantive conversation and critical thinking were observed.* Although students and teachers working independently was the most commonly observed lesson format, examples of direct teacher and student interaction involving transformational thinking were evident. For example, one English teacher was facilitating a discussion with a heterogeneous ability group of students who had recently read *Romeo and Juliet*. Numerous students were verbally participating in the discussion and demonstrating a thorough understanding of the plot and characters. They were engaged in a whole class conversation comparing film versions of a specific scene that exhibited nuances of a crucial relationship in the play. Students were speaking clearly and specifically, referencing the text and offering provoking insights about the language of the text, dynamics of power structures among the characters as well as cinematic interpretations of the play. The conversation as well as a related writing activity required students to defend and revise their conclusions and analysis, and the students energetically demonstrated this during the class activity as well.
- **Characteristic #2: Student-focused learning communities in which there is systemic evidence of Equity.** Research suggests that in More Efficient schools equity may be demonstrated in the many ways, including: teachers and leaders demonstrating their belief that they have a moral obligation to focus on the intellectual development of students as a means towards a better world; and high standards and high expectations held for all members of the school community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **considerable evidence** of this characteristic. For example:

- *A strong guidance program advocating for challenging and productive post-secondary pursuits was clearly raising the aspirations of students, educators and the community.* The guidance counselor said, "We promote and get excited about the options after high school; I've seen a great difference over the years." Students corroborated on the school's enthusiasm and focus on post-secondary learning opportunities for ALL students, "It's gotten better. They are pushing a lot more to get you to think about your future and college." Another student said, "A lot of the students think they can't go to college. They guidance counselor makes them apply, and when they are accepted they are in awe because they never thought they could." The school hosted an annual Pie Night that was reportedly very well attended. During this evening session, students of any age could attend and were offered informational sessions about FAFSA, college applications, a panel discussion of college-attending Site 3 alumni as well as various homemade pies. Site 3 also requires PSAT/SAT preparation lessons for all mainstreamed 9th, 10th and 11th grade students in Learning Lab and English courses. An Early College program was also provided through University of Maine at Machias offering online courses for college credit at a discounted rate that were monitored by the librarian. This arrangement was unique to these two institutions and was negotiated by the guidance counselor, and district-funded 1:1 computing (laptops) appeared to support this as well as other online opportunities. For each college course successfully completed (up to 18 credits), the student was awarded an elective credit towards high school graduation. The guidance counselor saw this as a real incentive for continuing to college, "With eighteen credits, how could you not keep going?"
- *A supportive and rigorous program for English Language Learners students reflected the school's dedication to high expectations for a diverse population of learners.* While native Spanish speakers whose families have come to a community to work in the agricultural industry are all too often marginalized in such geographically isolated and culturally homogenous areas, the approximately 13 English Language Learners enrolled appeared to be thoroughly engaged in the aspirations work for college readiness mentioned above (many of these students did attend college), enrolled in all mainstream courses as well as supported with an ESL course taught by a dedicated trilingual instructor who was an ESL student herself. This program included written and auditory tools for working with English course texts and content materials, and students usually read the

required texts in both English and Spanish. The school also collaborated with a local non-profit organization, Mano en Mano, to provide after school and supplemental programming. However, both students and the ESL teacher indicated that the diversity this population of students and their families provide should be more celebrated in the school and community as well as further enveloped into the popular culture of the school beyond the classroom.

- *The self-contained Special Education program provided relevant and invigorating learning experiences for its students.* Several students with significant special needs and physical disabilities were actively engaged in learning experiences involving communication skills (verbal and non-verbal), adaptive physical therapy, and social interaction. The program appeared well funded, well staffed and well equipped in a large, sunny classroom with 1-to-1 iPads for its students, adaptive technology, physical therapy equipment, adapted furniture, and a full working kitchen. The educators appeared to be eager to learn more about their specific field and had transformed the limited professional learning they had experienced directly into relevant, engaging learning tools and opportunities for their students. The program director indicated that external professional learning experiences for the educators in this program were crucial since their geographic isolation limited the students' exposure to certified professionals in the field.

Characteristic #3: Student-focused learning communities in which there is systemic evidence of Efficiency. Research suggests that in More Efficient schools efficiency may be demonstrated in the following ways: human and financial resources are used efficiently to maximize learning opportunities for students and staff. For the purpose of this study of improving schools, we did not directly analyze the exact fiscal practices of the school. Rather, we are focusing on how school personnel and systems demonstrate the use of human and other available resources.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *The district and school appeared to use external and grant funding in a manner that enhanced student learning experiences.* Site 3 has had a MELMAC grant since 2003 that supported the previously mentioned post-secondary aspirations programming that had evidently raised aspirations in students, educators and families. The guidance counselor said, "We have to credit the MELMAC grant because they fund [college and career readiness] things our district couldn't fund

locally." The school had also used grant funding to equip four classrooms with SmartBoards. Additionally, the school received significant funding from the Maine Department of Education several years ago as a model district engaging in professional learning experiences surrounding Silver & Strong's 16 Best Practices.

- *The school utilized community collaborations with non-profit organizations to supplement student learning experiences. As mentioned above, the school worked with Mano en Mano to provide ESL programming and after school learning opportunities to English Language Learners. The school also worked with the Maine Sea Coast Mission through the Ed Greaves Education program (EdGE), which has a \$4.5 million endowment subsidy and works with AmeriCorps volunteers to provide students with tutoring, enrichment, mentoring, teambuilding, and summer credit recovery. Low-performing or at-risk students were often actively encouraged to participate in these programs but many of the offerings were also available to all students free of charge.*

Characteristic #4: A visible change symbolizes significant and sustained reform

within the school. Research suggests that in improving schools this may be demonstrated in the following ways: "quick wins" within the first few months of initiating reform efforts to represent action and sincerity to the school community and the community at large; positive, consistent public relations with community; and a clear message that the school's role is to "support education" not be the "sole source of education" within the community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *In the past several years, changes to the school's daily schedule and program of studies reflected an attempt to adapt to student needs. In 2003, the school adopted semester-long courses and a block schedule but after reflection on daily practices and student performance the school revised this schedule. In 2008, a blended block schedule was implemented and yearlong courses were re-introduced. This blended schedule appeared to allow for more flexibility to incorporate personalized courses such as Learning Lab, Advisory and Guided Study. A few teachers also cited this as a major catalyst for change in improving instructional practices. The schedule changes were coupled in the same year with the development of a school-level teacher-led Leadership Team, which acted as a liaison between educators and administrators as well as leaders in school improvement efforts, including the NEASC accreditation process that was successfully earned in 2010.*

- *Recently, the school began to use internally developed tools geared towards making students' educational experience at the high school more personalized and consistent. Several teacher-developed school-wide rubrics were developed and available for use in all content areas. Our analysis of student work indicated that some teachers in various subject areas were using these rubrics, and students corroborated that the writing and oral presentation rubrics were used regularly. The guidance department was practicing a process of developing Personalized Learning Plans, which involved talking about post-secondary learning options and completing a college application, with every senior level student.*

Characteristic #5: Focused, effective leaders throughout the school and district guide improvement. Research suggests that in improving schools this may be demonstrated in the following ways: leadership, students and other adults in the school community are focused on learning; building administrator's role is to lead instruction, not just manage the school; school leaders initiate progress then collaborate to sustain improvement; open and explicit feedback and evaluation is conducted constantly.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **considerable evidence** of this characteristic. For example:

- *Stable administrative and school board leadership indicated that improved instruction was a school focus. The current principal and assistant principal worked within the district for many years. The principal spoke clearly about focusing teacher evaluations, observations and professional work around improving instruction and student learning. Teachers also said that the principal was very visible and frequently visited classrooms. The assistant principal was strongly dedicated to the school and community. Many teachers indicated that the assistant principal was an important leader in focusing improvement on instruction, using data to guide this work and advocating for valuable professional learning practices. Teachers said the assistant principal was "good with data and knows what to do with it." School board members indicated that, historically, the board had been student-focused and supportive of efforts to improve student learning. Various educators said that the district had by and large supported past fiscal requests that were seen as supporting and enhancing student learning. A few teacher-leaders commended the new superintendent as being open to ideas that benefit students. They described his approach: "If you think it's going to benefit students, then go for it."*
- *Three years ago, the school developed a Leadership Team consisting of teacher-leaders to act*

as a "liaison between teachers and administration." Membership on the leadership team was open to all teachers and serves as an advocate for the needs of the high school at the district level. For example, the Leadership Team redesigned the district mandated "Teacher Rounds" practice of observing colleagues as more of a peer coaching model of collaboration and shared expertise that includes peer observations, conversations about best practices, and school-selected thematic professional learning. "Feedback from the rest of the staff has been positive. It's more collaborative and takes into account our professionalism, our craft." Other teachers also appeared to be leaders in their subject areas and capable of contributing to the Leadership Team if they chose to participate in future years, especially in Art, English, Math and Science.

Characteristic #6: Thorough and sustained learning is provided for school professionals. Research suggests that in improving schools this may be demonstrated in the following ways: regular professional learning time for all classroom practitioners to work collaboratively and independently; professional development focused on instruction and building intellectual capacity; external learning opportunities utilized to develop internal experts.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *The school's educators and leaders modeled practices of mind by building a strong foundation of professional learning from past and current initiatives and development opportunities.* In 2002, district work focused around literacy adapted to incorporate Silver Strong & Associates' Thoughtful Education approaches that included identifying and developing the districts' "Best Practices Program." This professional work and focus was led and organized by the school's Leadership Team and building administration. A school staff member said, "Teachers were ready to do it, but needed someone to guide them." On-going research and professional development was integrated into the "Best Practices Program," including recent learning involving "A Better Education: Brain Rules" by Dr. John Medina. Some of these practices were also adapted to better fit the needs of the high school, such as the Teacher Rounds that use collegial observations and collaborative lesson planning as well as further training in iWalkthrough observations. In addition, we observed educators' on-going contributions to the staff room's "museum wall" of effective classroom practices and strategies shared by the high school educators. As one school board member and parent said, "We

have internal experts within the system. Professional development continues today. That's part of our culture, and we do that mostly internally now."

- *The school's educators demonstrated a great capacity and desire for engaging in intellectual work at all stages (understanding, transformation and sharing). A vast majority of teachers we interviewed expressed an interest in individually and collectively continuing their professional development to improve their craft, content knowledge and student performance. Some teachers pursued collaboration even though formal time was not offered, such as the science teachers who had worked together to create a common curriculum and various individual teachers who were engaged in external content-specific organizations and workshops. Educators and school leaders indicated that they believed focused professional collaboration would be even stronger if they had regular embedded common time.*

Characteristic #7: The school focus holds steadily on student and adult learning.

Research suggests that in improving schools this may be demonstrated in the following ways: a pedagogical emphasis on improving student learning; protected, focused learning time for all students; student learning emphasis on depth of core skills (reading, writing, numeracy and thinking); "a laboratory of adult learning" developing cognition and intellectual capacity among educators and leaders.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- *The school and district had developed an atmosphere that allowed students to focus on academic work. 72% of classroom observations (n=32) showed that at least a majority of students were engaged in the learning task at hand. There was also a clear expectation that even if students were not directly engaged in the learning task (such as those students who had completed a test or chose not to do homework during Guided Study), they were required to maintain a quiet respectful environment conducive to academic focus for those students who were studying. School board members also indicated that the board was historically very supportive of any measure that improved or supported student learning, describing the school board as "student focused" in its budgets and policies.*
- *As mentioned above in the section regarding professional learning, adults in the school were enthusiastic about professional learning opportunities, and leadership spoke in a manner that clearly supported and encouraged adult learning. Numerous educators we*

interviewed demonstrated a significant capacity for intellectual work that would invigorate their profession, their subject area and student performance. Teachers had clearly thought deeply about their course material, often attending content area conferences and trainings, and translated that into rigorous, innovative coursework for students. Especially in English, Science, Math, Special Education, ESL and Art, lesson plans, assignment descriptors, rubrics and assessed student work demonstrated transformative work on the part of the educator. Various teachers referenced the recent professional development surrounding Best Practices and "Brain Rules" as thought-provoking learning experiences that enhanced their lessons and instruction.

Conclusions

Many wonderful practices were evident during our visit to Site 3 High School. In the research literature, some common distinguishing characteristics of Improving Schools include: visible change; focused, effective leadership; thorough, sustained professional learning; and a school focus of both student and adult learning. The research also identified key elements for sustaining successful school improvement, including: common language and vision; interventions for underperforming and excelling students; data analysis; sustained, dedicated resources; intellectual capacity; and district-level support. Site 3 High School exhibited some of these characteristics and elements of an Improving School during our two-day visit and in our review of documents, interviews, classroom observations, focus groups, and conversations. The strongest and most pervasive of these attributes included:

- *A clearly understood professional focus on improving students' learning experiences and the ability to build upon and adapt professional development to maintain this focus.*
- *A willingness among educators and administrators to work collaboratively.*

More Efficient Schools, as defined in the first phase of this multi-year study, are student-focused learning communities in which there is systemic evidence of **intellectual work**, **equity**, and **efficiency**. Site 3 High School exhibited some of these features of More Efficient Schools during our two-day visit and in our review of documents, interviews, classroom observations, focus groups, and conversations. The strongest and most pervasive of these attributes included:

- *A thorough dedication to providing a quality education and raising aspirations for all populations of students, including English Language Learners and Special Education students.*

- *School educators and leaders demonstrated the enthusiasm and intellectual capacity for professional learning at the transformational level.*

Site 4: High School Level Report

The Site 4 high school is part of a RSU and serves approximately 175 students in grades 9-12 from the towns of Frankfort and Stockton Springs, which are rural communities on the northeast coast of Maine. Approximately 58% of the student population is eligible for free and/or price-reduced lunch, 21% is identified as special education, and no students have been identified as Limited English Proficiency.

MEPRI researchers visited Site 4 after speaking with Dean of Students at an earlier date to prepare the schedule and gather additional information regarding the practices and characteristics of the school. In all, the team conducted meetings with teachers, staff, students, parents, and school and district administrators in both interview and focus group settings. Observations were conducted during classroom and non-classroom time. Student and staff handbooks, school and district curriculum documents, newsletters, student work, and school websites were reviewed to help paint a picture of the school as a whole. Researchers obtained additional information from the Maine Department of Education website and from a review of articles in local and regional newspapers over the past three years.

Characteristic #1: Student-focused learning communities in which there is systemic evidence of Intellectual Work. Intellectual work is demonstrated through three elements:

7. **Understanding:** focused, sustained and thorough academic (content knowledge and fundamental skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.
8. **Transformation:** constant inquiry using various reasoning processes and all levels of cognitive thinking to work with information and concepts in order to create innovative solutions.
9. **Sharing:** clear communication of invigorating conclusions that enhance existing ideas.

Research suggests that in More Efficient schools intellectual work may be demonstrated in the following ways: students engaging in academic knowledge and skills as well as social and behavioral learning; and adults creating instructional practices, curricula, professional learning programs, and leadership roles that improve student performance and are informed by assessment and experience.

Through our observations, discussions, and exploration of policies and practices at your

school, we identified considerable evidence of this characteristic, for example:

- *Instruction that encouraged students to engage in transformational intellectual work was regularly evident in classroom practices.* 70% of classroom observations (n=20) indicated that the learning activity required at least some transformation (4 out of 20 observations indicated "little or no expectation that students demonstrate transformation," 9 out of 20 observations indicated "some expectation that students demonstrate transformation," 5 out of 20 observations indicated the "learning activity's primary expectation is transformation"). {Note: According to the Center for Authentic Intellectual Work's *Teaching for Authentic Intellectual Work: Standards and Scoring Criteria for Teachers' Tasks, Student Performance and Instruction* (Newmann, King and Carimichael, 2009), the goal for a high quality learning experience is to engage all students in activities which have higher order thinking (i.e. "transformation") as their primary tasks 60% - 100% of their learning time and lower order thinking (i.e. "understanding") 0% - 40% of their learning time.} This type of transformational practice was evident in several observations, including a ninth grade English class that was engaged in a lesson that had apparently been scaffolded to introduce the concept of symbolism. In this lesson, students were asked to identify and share with the class a symbol to represent themselves. The class discussion was facilitated by the instructor who incorporated the idea of other symbols in society then used that to segway into a conversation about a short story that had been assigned to the whole class. The culminating assessment of the lesson was an analysis essay that asked students to read another short story by the same author then identify and analyze similar or common symbols within that text.
- *Educators and students engaged in a high level of sharing that was focused on learning.* Classroom observations (n=20) indicated that teachers often took an active role in interacting with students: "conference" (10 out of 20); "facilitate" (5 out of 20); "present" (4 out of 20); "monitor" (4 out of 20); and 2 observations reported teachers "working independently." [Note: Multiple roles could be identified in one observation.] Observations noted, "Teacher gave very specific feedback to students regarding their process in working through math problems." and "Teacher modeled how to use vocabulary in a sentence with a 'story starter' then continued to help students, giving feedback as he conferenced with students." Students were clearly engaged in academic work for the great majority of their scheduled school day, which required students to be in an active learning environment including facilitated interventions throughout the day. 85% of

classroom observations (n=20) indicated strong levels of student engagement: "all" (30%), "all but a few" (30%), "a majority" (25%), and "less than half" (15%).

- *Significant time and a positive environment were provided for adults to engage in intellectual work.* The district superintendent indicated that a crucial element of improvement was to "provide [staff] with every professional learning opportunity that you can...give them the opportunity to learn." This philosophy was evident in practice at the school with daily time for adults to work collaboratively or independently, which was evidently used quite regularly for substantive discussions about common assignments/assessments, student performance, and building curriculum. One observation reflected a grade level team spending approximately forty minutes engaged in thoughtful analysis and discussion about one teacher's writing assignment. The teacher had brought the task, the rubric, scaffolding notes and samples of assessed student work to the meeting. Colleagues then used a loosely followed protocol to address the teacher's questions about the students' level of analysis and evaluation in the final essay as well as his concern that the student work reflected too much of his own intellectual work instead of their own independent thought. Also, in conversations with school leaders, it was clear that the constant pursuit of new research and external resources (grants, volunteers, community programs, etc.) to support the school's focus and practices were "applied not added" to existing work.

Characteristic #2: Student-focused learning communities in which there is systemic evidence of Equity. Research suggests that in More Efficient schools equity may be demonstrated in the following ways: teachers and leaders demonstrating their belief that they have a moral obligation to focus on the intellectual development of students as a means towards a better world; and high standards and high expectations held for all members of the school community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified considerable evidence of this characteristic, for example:

- *Extensive interventions and personalized learning experiences provided all students with the fundamental skills and knowledge necessary to continue their academic pursuits.* All mainstreamed students and most students with an IEP were required to complete a course of studies that included four years of math, English, science and social studies. Within these core courses, students were required to meet the school-developed standards for each summative assessment; failure was not an

option. Students were required to re-do any part of a summative assignment that was assessed as not meeting the standard until the assessed grade indicated the student had demonstrated proficiency in all relevant standards. Extended learning time was provided for students to revise their work with the direct guidance of the teacher who had assigned the task in intervention sessions during lunchtime, before/after school (Academies), study hall (LAB), and during school vacations for more extensive work. Our observations indicated that the vast majority of these intervention sessions were used diligently by students who could clearly explain why they had to revise an assignment and with teachers providing direct assistance when needed. The expectation of meeting the standards before earning course credit (and therefore graduating) had become an accepted part of the school culture. In fact, one student said that interventions "allow learning to really happen."

- *Site 4 High School had apparent, significant success in raising post-secondary aspirations from its students, families and staff.* Numerous staff members and adult community members indicated that in previous years the culture of the community had not embraced the importance of continuing education beyond (or even within) high school. However, several key changes developed the current atmosphere in the school and community that pursuing lifelong learning in the form of challenging work experiences, college, or other educational opportunities after completing high school was a valuable, beneficial part of a successful life. Various programs were put into place to encourage "students and parents to realize they can be successful, they can go on to colleges then return and better their own communities." Some of these programs include providing online college courses, Early College and collaboration with the University of Maine's outreach campus at the Hutchinson Center, as well as formal and informal college counseling starting in the middle school.
- *SDHS appeared to value every adult professional on its staff as a potential leader in the school's progress.* Education technicians, both in special education roles and other supporting roles, were invited and encouraged to participate in regularly scheduled grade-level team meetings with content area teachers. Collaboration among classroom teachers and other staff members was evident in collective curriculum work with teachers and the assistant librarian in addition to various student-written behavioral expectations posted in the cafeteria that were signed by the cafeteria staff as well. There was also a school-wide advisory program in place that paired students with adult school staff members (teachers and others).

Characteristic #3: Student-focused learning communities in which there is systemic evidence of Efficiency. Research suggests that in More Efficient schools efficiency may be demonstrated in the following ways: human and financial resources are used efficiently to maximize learning opportunities for students and staff. For the purpose of this study of improving schools, we did not directly analyze the exact fiscal practices of the school. Rather, we are focusing on how school personnel and systems demonstrate the use of human and other available resources.

Through our observations, discussions, and exploration of policies and practices at your school, we identified some evidence of this characteristic, for example:

- *Selection and use of grant funding aligned with the school's vision and enhanced existing successful practices.* The school had a school coach as part of a long-term grant, and she helped the school administrators identify, write and submit grants. The school coach indicated that their goal in selecting grants was to extend or enhance a current program that had been demonstrating improvement in student performance. At times, this meant pursuing new grants but often it included applying for extended support from on-going funding sources. Teachers were often closely involved in the decision to apply for external funding, and some educators were even involved in the application process.
- *Although the town's that send students to Site 4 were small, rural communities, there were some very engaged and dedicated alumni, former school employees and community members.* In 2002, a community group organized to raise funds within the townspeople and gain a match from a local corporate business that provided a significant amount of the funds to improve and increase the size of the school facility. This group recently gained non-profit status as an alumni organization and continued to work to support the school in numerous ways. The school also appeared to work well with community-based education programs that directly enhanced their students' learning experience at the next-door Penobscot Marine Museum, University of Maine's Hutchinson Center and AmeriCorps' VISTA.
- *School staff appeared to be highly trained to effectively provide educational and social supports to their students.* Teachers demonstrated that they were well versed in various professional protocols that focused on improving student learning and allowed them to use professional development time efficiently and effectively. Education technicians were encouraged to participate in these professional development opportunities as well as regular grade-level team meetings so that they could be more familiar with content standards, curriculum and course

assignments. Thereby making their time to work with students more explicit, concise and efficient. According to our classroom observations (n=20), educators were most often engaged in instruction that involved direct interaction with students during class time: "conference" (10 out of 20) and "facilitate" (5 out of 20). This was a common practice that distinguished the More Efficient Schools as indicated in our report, *More Efficient Public Schools in Maine: Learning Communities Building the Foundation of Intellectual Work*.

Characteristic #4: A visible change symbolizes significant and sustained reform

within the school. Research suggests that in improving schools this may be demonstrated in the following ways: "quick wins" within the first few months of initiating reform efforts to represent action and sincerity to the school community and the community at large; positive, consistent public relations with community; and a clear message that the school's role is to "support education" not be the "sole source of education" within the community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified extensive evidence of this characteristic, for example:

- *Community and staff indicated that the 1999 loss of NEASC accreditation prompted several improvement measures dealing with both the school's physical plant and educational practices. In 1999, the school lost its NEASC accreditation due to the inadequate school facility. In 2002, a community group led by alumni raised \$600,000 and received a matching donation from a local national corporation. This money funded improvements to the school's infrastructure, physical plant and a new wing of the building. Several community members and retired teachers said that the upgraded facility jumpstarted various on-going efforts surrounding improving low student academic performance. One former teacher said it was "an opportunity for staff to have a more professional place and students to have a more respected place to do their work." Since that time, various grants, initiatives and a dynamic new principal in 2006 led to numerous visible changes: block scheduling, students grouped by age/grade level (not ability level) for courses, teacher teaming supplemented with common, embedded professional development time without students, more explicit use of relevant research and student performance data as well as implementing standards-based curriculum and assessment practices that included proficiency-based graduation requirements.*
- *All members of the school continued to value the role of community and family support in*

on-going improvement efforts. The improved school building in 2002 appeared to represent a greater awareness that the school needed to be more effective in their efforts to build a culture of support from outside the walls of the school. Teachers purposefully piloted reform programs with selected students. If the program demonstrated improvement in student learning and performance, students and staff shared testimonials with the School Board in efforts to gain fiscal and philosophical support. School leaders developed several methods for expanding communication with students' families and interested community members: written documents (both extensive descriptions and more summative brochures) describing various initiatives and practices were distributed regularly at school events and to school visitors; external researchers, visitors, and members of the press were welcomed to observe new practices; and district and school leaders provided extensive communication to business groups, community organizations and invested individuals about the successes and reforms. The superintendent said it was important to "take the opportunity, take the time to explain" and even expressed an understanding of the role of social media (Facebook, Twitter, blogs, etc.) in building a positive image of the school. A former principal said, "Look everywhere for evidence of growth and celebrate successes."

Characteristic #5: Focused, effective leaders throughout the school and district guide improvement. Research suggests that in improving schools this may be demonstrated in the following ways: focusing leadership, students and other adults in the school community on learning; building administrator's role is to lead instruction, not just manage the school; school leaders initiate progress then collaborate to sustain improvement; open and explicit feedback and evaluation is conducted constantly.

Through our observations, discussions, and exploration of policies and practices at your school, we identified extensive evidence this characteristic, for example:

- *The school appeared to attract, value and support effective school leaders.* The former principal (2006-2011) was referenced with great admiration and respect by numerous adults we interviewed. The assistant superintendent said that the school's improvement was "a very intentional process" by a "visionary principal." The reform efforts led by this principal included close evaluation and analysis of student performance and needs; developing standards; aligning curriculum, grading practices and graduation criteria to standards; building, analyzing and evaluating an intervention system; using research and data to guide progress; and establishing protocols to provide teaching staff with formal and informal feedback

on practice and student performance. The current principal was clearly supporting and working to sustain the effective practices in place while also serving as an instructional leader and using data to drive improvement. The dean of students appeared to be a very organized, efficient school manager while also serving as a thoroughly aware and involved leader in the practical and pedagogical work to improve student learning experiences. In addition, the school embraced a school coach who worked as part of an existing grant. The school coach worked with teachers across the curriculum, assisted with grant writing and application, and was observed working one-on-one with individual students as well.

- *Formal and informal leaders were developed, encouraged and challenged among staff from every part of the school.* Site 4 had created "a culture of school leaders" in which "every staff member is a potential leader in terms of instruction and [intellectual] gifts." This appeared to be done by encouraging or even requiring all teaching staff to be involved in key professional learning experiences that directly dealt with student learning and/or instructional practices. School leaders said teachers were encouraged to pursue relevant external professional development opportunities, implement small pilot programs, continue with research and evaluation of their learning and then become internal leaders.
- *The school demonstrated a clear culture of collective responsibility and work among teaching staff.* Most decisions and changes had been approved with a "fist to five" consensus protocol during staff meetings. When consensus was built, teachers remained engaged in the initiative. For example, sixty-three of the sixty-five staff members were involved in developing the "Academy" intervention, which included required after-school help sessions for students not meeting standards. One teacher said that when change is proposed, "we have a conversation about it." The district superintendent agreed that to make change successful, "you can't mandate it." However, teaching staff also appeared to understand their role in school improvement and appreciated the "constant feedback" they received from both colleagues and administrators, generated from internal classroom observations, and analysis of internal and external data.

Characteristic #6: Thorough and sustained learning is provided for school

professionals. Research suggests that in improving schools this may be demonstrated in the following ways: regular professional learning time for all classroom practitioners to work collaboratively and independently; professional development focused on instruction and building intellectual capacity; external learning opportunities utilized to

develop internal experts.

Through our observations, discussions, and exploration of policies and practices at your school, we identified considerable evidence of this characteristic, for example:

- *Observations and conversations with leaders and practitioners indicated that educators used common embedded professional time effectively to improve practice and student performance.* Professional Learning Communities (PLCs) were well established within grade-level teams and met regularly to analyze student work and assessment tools. PLCs used tested protocols to guide discussions, remain on task and provide feedback on practices and work. Grade-level teams met for one hour every other day to do collaborative work, including the PLC work mentioned above. There was also forty minutes within the daily block schedule for teachers to work independently. Our observations indicated that this time was used productively for class preparation, working independently with individual students, sharing ideas with colleagues, and other tasks that enhanced practice or student learning.
- *The school and district apparently encouraged and paid for teachers to participate in external professional development opportunities.* Teachers were encouraged to participate in national conferences and workshops to share their own successful practices and learn about new practices. For example, a science teacher designed a workshop session featuring her unit on Rachel Carson's *Silent Spring* and was invited to present at the National Science Teachers Association Conference. Teams of teachers have also presented at the Coalition of Essential Schools Forums. Educators also indicated that they had attended various summer institutes in their content areas and been provided release time to participate in collaborative professional work that extended beyond the school day.

Characteristic #7: The school focus holds steadily on student and adult learning.

Research suggests that in improving schools this may be demonstrated in the following ways: a pedagogical emphasis on improving student learning; protected, focused learning time for all students; student learning emphasis on depth of core skills (reading, writing, numeracy and thinking); "a laboratory of adult learning" developing cognition and intellectual capacity among educators and leaders.

Through our observations, discussions, and exploration of policies and practices at your school, we identified extensive evidence of this characteristic, for example:

- *Despite the hard work, struggles and temporary setbacks, the school has sustained their on-going, focused reform work for at least the past twelve years.* The former principal

indicated, "Everything we initially did failed." A teacher said, "The first few years were really hard." The district superintendent believed it took "little steps" over the course of "four to five years" to "get everything solid." However, leaders and educators maintained constant analysis and evaluation keeping the school's vision evident in practice. One teacher referred to their use of the school's vision by saying, "We breathe it." The school had developed systems to encourage and even require reflection, evaluation and continuous improvement at all levels. For example, a leadership group of teachers advised the principal on issues that affect teaching, learning and school culture. One such teacher leader said they had been dealing with issues such as student-centered learning strategies, reinstatement of the Honor Roll, school-wide recognition events, and cell phone use policy.

- *Significant time was provided for adults to engage in reflective and evaluative professional learning experiences.* As mentioned in a few prior characteristics, there were numerous opportunities for educators and support staff to engage in substantive learning experiences. One observation reflected a grade level team of teachers spending approximately forty minutes during a common period analyzing and discussing a writing assignment one English teacher had brought to the meeting. Colleagues then loosely followed a protocol to address the teacher's questions and concerns about the task and resulting student work. We also observed several informal professional discussions between teachers, teachers and the school coach, teachers and support staff, as well as teachers and administrators that focused on programming, curriculum or student performance. Educators also said they were encouraged to pursue external learning experiences at national conferences, content-area workshops, and visits to model schools. The district superintendent said it was important to "provide [staff] with every professional learning opportunity that you can...give them the opportunity to learn."
- *Systems, programs and practices were in place at the school that encouraged and even required a culture of focused learning during the entire school day.* The school's daily student schedule required most students to attend classes for approximately six hours. Early release and late arrival were not granted to students. In fact, some students who had not demonstrated proficiency were required to spend their lunchtime or after school in an intervention support session working on tasks. Likewise, study halls had been replaced with targeted intervention LAB. These practices reflect similar practices evident in More Efficient Schools, as indicated in the study report, *More Efficient Public Schools in Maine: Learning Communities Building the Foundation of Intellectual Work*. LAB teachers used GoogleDocs to keep track of any incomplete assignments from any course for each student on their

class roster. Observations of these LAB sessions showed students working independently and teachers conferencing with individual students on various assignments. In fact, 85% of our classroom observations (n=20) indicated strong levels of student engagement: "all" (30%), "all but a few" (30%), "a majority" (25%).

Conclusions

Many practices were evident during our visit to Site 4 High School. The strongest and most pervasive elements we saw in our review of documents, interviews, classroom observations, focus groups, and conversations during our two-day visit of your school included:

- *A strong, systemic curriculum and instructional focus on core skills of reading, writing, numeracy and thinking to build an equitable knowledge base for ALL students at Site 4 High School.*
- *A culture of collective responsibility and professional collaboration among educators and leaders.*

Site 5: High School Level Report

Site 5 school is part of a RSU and serves approximately 890 students in grades 9-12 from the towns of Canaan, Cornville, Mercer, Norridgewock, Site CC, and Smithfield, which are rural communities in western Maine. Approximately 61% of the student population is eligible for free and/or price-reduced lunch, 18% is identified as special education, and 1% of students have been identified as Limited English Proficiency.

Characteristic #1: Student-focused learning communities in which there is systemic evidence of Intellectual Work. Intellectual work is demonstrated through three elements:

1. **Understanding:** focused, sustained and thorough academic (content knowledge and fundamental skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.
2. **Transformation:** constant inquiry using various reasoning processes and all levels of cognitive thinking to work with information and concepts in order to create innovative solutions.
3. **Sharing:** clear communication of invigorating conclusions that enhance existing ideas.

Research suggests that in More Efficient schools intellectual work may be demonstrated in the following ways: students engaging in academic knowledge and skills as well as social and behavioral learning; and adults creating instructional practices, curricula, professional learning programs, and leadership roles that improve student performance and are informed by assessment and experience.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- o *In many classroom activities, students and teachers were engaged in sharing their solid level of understanding regarding the academic content knowledge. 78% of classroom observations (n=23) identified the educator demonstrating "understanding" a majority of the time. 61% of classroom observations identified a majority of students demonstrating "understanding" a majority of the time. {Note: According to the Center for Authentic Intellectual Work's *Teaching for Authentic Intellectual Work: Standards and Scoring Criteria for Teachers' Tasks, Student Performance and Instruction* (Newmann, King and Carmichael, 2009), the goal for a high quality learning experience is to engage all students in activities which have higher order thinking (i.e. "transformation") as their primary tasks 60% - 100% of their learning time and lower order thinking (i.e. "understanding") 0% - 40% of their learning time.} While 30% of classroom observations indicated that the learning activity had some expectation of "transformation", 70% of classroom observations indicated that the learning task's primary expectation was that students demonstrate "understanding". It was noted that some instructors were observed using higher level questioning (How?why? In what way...? Etc.) in the facilitation of class discussions and individual conferencing.*

Several students said that most of their classes incorporated the Cornell Notes method/template that asked student to take notes, talk about the material, reflect on the ideas then draw conclusions about the information. In the majority of observations, students and teachers demonstrated an accurate understanding of the information and knowledge being discussed.

- o *Core common curriculum and graduation criteria in mathematics required students to demonstrate a solid foundation of math skills and embedded collaborative professional time for math instructors. Students were required to earn three full credits in math in order to meet graduation criteria at Site 5. Student performance data from common summative assessments using Core-Plus Mathematics Project tools was regularly analyzed*

collectively by math educators during the contractual day, utilizing substitute teachers to release educators from their classes. This time was dedicated to identifying students who were not meeting standards. These students were then received an additional forty minutes per day of math instruction. Highly qualified math tutors also volunteered to be available for students three or four days per week. Additionally, it was reported that math courses incorporated Mental Math exercises and/or problems to quickly start every class meeting with a fundamental skills refresher.

o Since a district wide literacy initiative started in 2002, student performance appeared to improve in reading and writing. Staff was also provided with some focused, invigorating professional learning opportunities during the beginning of this initiative. A 2006-2008 external literacy audit instigated cross-curriculum literacy work in Site 5. Although this formal time for professional collaboration was not maintained, many educators indicated that it was a useful learning experience and they still informally shared ideas and materials about improving literacy instruction. In 2006, Scholastic Read 180 program was implemented to assess students, provide an intervention course for struggling students, as well as offer curriculum and instruction tools. One science teacher said the program had made a huge difference in her instruction, incorporation of content vocabulary and development of a common language among colleagues and students. A knowledgeable, focused Literacy Specialist guided this work for grades 7-12 and also taught Read 180 intervention courses.

Characteristic #2: Student-focused learning communities in which there is systemic evidence of Equity. Research suggests that in More Efficient schools equity may be demonstrated in the many ways, including: teachers and leaders demonstrating their belief that they have a moral obligation to focus on the intellectual development of students as a means towards a better world; and high standards and high expectations held for all members of the school community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

o The implementation of interventions – some with a systemic focus – provided extended time for students and instructional focus for educators to address gaps in skills and/or content knowledge. In 2006, Site 5 implemented Read 180, a school-wide literacy intervention program, designed to use both adaptive assessments for students and data differentiation for teachers to address the needs of Site 5 High School - 5 readers reading below grade level. Data gleaned from NWEA tests (twice a year) and the Scholastic Reading Inventory had led to “more informed placement” of students in

ability grouped courses. Through some professional development, teachers across content areas had been equipped with tools to differentiate instruction. One science teacher said she noticed immediate student engagement upon using such strategies as graphic organizers for note taking, “quickwrites” to check understanding, and development of content vocabulary to establish a common language in her classroom. Math teachers used Moodle in their math program to track student progress and used data to differentiate their instruction. Other initiatives in place at that focused instruction on fundamental skills included forty minutes of Daily Algebra that allowed students to make up work, receive additional help, and engage in skill-based work. In addition to skills augmentation, other interventions-- Homework Lab, Summer School, and Winter School--provided included additional time to complete coursework.

o The consistency and structure of the in-school suspension program staffed by a full-time (grant-funded) teacher had reportedly improved student attendance and decreased suspensions overall. A recently implemented in-school suspension program changed past discipline procedures to primarily address the issues of students who missed too much school because of behavioral difficulties but also appeared to reinforce social and behavioral standards throughout the school. Students who had committed non-violent infractions were required to be in school in a detention room where an educator facilitated academic help. Students who were disciplined for physical or violent altercations were suspended out of school for one day and then spent an additional four days in this in-school suspension program. According to one administrator, the message to kids was three-fold: “school is important and you’re welcome in the classroom BUT you’re not allowed to hinder others’ education.”

o While not yet systemic, the practice of providing some common academic experiences for students had been an intentional effort made by some teachers and/or departments. An attempt at a 9th grade teaming focus – though not a true team model of shared students – had allowed for more common planning and collaboration for teachers and some shared academic experiences for students. For example, each 9th grade Geography teacher taught a "Consultant" level class (including students performing below grade level and students with an IEP) in which reportedly eighty percent of the assessments – including a portfolio--were common. Other common experiences beyond the ninth grade level included: common core texts and skills included in the "College Options"

English curriculum at all grade levels; compiling a 4th quarter portfolio in English where students reflect on, revise and organize 1st quarter work; and participating in Daily Mental Math activities in all math classes.

Characteristic #3: Student-focused learning communities in which there is systemic evidence of Efficiency. Research suggests that in More Efficient schools efficiency may be demonstrated in the following ways: human and financial resources are used efficiently to maximize learning opportunities for students and staff. For the purpose of this study of improving schools, we did not directly analyze the exact fiscal practices of the school. Rather, we are focusing on how school personnel and systems demonstrate the use of human and other available resources.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

- o *The district and school leadership highlighted the strengths and needs of its community in order to receive grants and external funding for educational and professional programming.* Site 5 began its work with the University of Maine's Maine Content Literacy Project in 2002. This grant provided funding for the Literacy Specialist in grades 7-12 who analyzed student performance data, provided curriculum and instruction support as well as taught Read 180 courses at the 9th grade level. In addition, it funded a two-year external literacy audit in 2006-2008. The positive effect of these programs was evident in the literacy strategies and instruction techniques seen during our visit within conversations with educators and students, classroom observations, as well as analysis of curriculum documents. Also, the school used Reading First monies to fund SIPPS (Systematic Instruction in Phoneme Awareness, Phonics, and Sight Words) professional development opportunities. Since 2010, the Nellie Mae Education Foundation has funded the district's Community Assets Mapping Project that included collaboration between the school and the Somerset Career and Technical Center to provide students with a variety of learning experiences in the Multiple Pathways program. The school recently combined grant funding from 21st Century Community Learning Centers and Nellie Mae Education Foundation to implement the school's Extended Learning Opportunities after-school program in 2011. The school also used this funding to work with a school coach and provide training in Professional Learning Communities. Additionally, individual educators who opted to participate in select professional development opportunities were provided funds from the Open Educational Resources in Mathematics grant.

o Technology was evidently utilized and maintained in an efficient manner. The school provided laptops for all educators and frequently used the nine classroom laptop carts to support collaborative technology integration. The Technology Integration Specialist indicated that one of their technology goals was to provide in-house computer access for the school community. She appeared to manage the resources at hand in an efficient and effective manner by piloting new technology with a small number of highly capable educators, analyzing the results of the pilot, and then offering whole staff access and training to programs and/or equipment that were proven effective. In fact, her goal was to "put the machine where it best fits." Therefore, trained and enthusiastic staff were given new hardware with more sophisticated features, while staff members with more basic knowledge of technology were provided with less advanced hardware that did not overwhelm them. Internal experts were often relied upon to provide technology training to staff, and students with the necessary training and skills did some technical repairs and installation. Classroom observations indicated that classrooms did frequently use the technology that was available to them, such as laptop carts, LCD projectors, instructor laptops, SmartBoards, and Promethean Boards.

Characteristic #4: A visible change symbolizes significant and sustained reform within the school. Research suggests that in improving schools this may be demonstrated in the following ways: "quick wins" within the first few months of initiating reform efforts to represent action and Site 5 High School - 7 sincerity to the school community and the community at large; positive, consistent public relations with community; and a clear message that the school's role is to "support education" not be the "sole source of education" within the community.

Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

o Changes made to intervention systems and remediation programs targeted student needs and an instructional emphasis on fundamental core skills. Site 5 recently incorporated the use of adaptive assessments and computer-based programs such as NWEA, PLATO, Accusess and Accuplacer to assess student proficiency and set performance goals for remediation. According to one teacher, after data analysis in science, the sequence of science area courses was re-organized to offer Biology at the 9th grade level to address previous gaps in content knowledge by the time students had reached 11th and 12th grade. As mentioned above, Read 180 was implemented approximately five years ago to provide a comprehensive reading remediation program serving 50-75 students this past year in. Other recently implemented remediation efforts included forty

additional minutes per day of reading instruction and Algebra (9th grade) for identified students, which allowed students below targeted proficiency levels to receive further instruction and engage in core skills work. Summer School remediation was changed to be goal-oriented: once student had reached targeted goals for skills and/or content knowledge, then their time in Summer School was complete. The principal indicated that this "shifted summer school from seat time to learning time." These visible changes were intended to signal to students, parents and community members that the shift to focus on core skill proficiency was crucial to the overall improvement efforts. Additionally, the school expanded Advanced Placement course offerings in the last eight years, including a greater effort to encourage students to participate in the Maine's statewide program, AP4ALL, which offers AP courses online.

o Site 5 had recently implemented or enhanced various programs and resources to address the social and behavioral needs of their student population. Extended Learning Opportunities (ELO), an after-school program funded by grants from the 21st Century Community Learning Centers and Nellie Mae Education Foundation, served approximately 100 students in the school community over the course of this past school year and focused on community service work. The ELO Coordinator explained that there was a loyal following of students who relied on the program for its consistency, structure and familial quality. The ELO program mission was to provide personalized learning experiences for all students by connecting them with the greater community. Implemented just a year ago, ELO was just in its infant stages and had yet to expand its offerings into the mainstream school culture. Some example ELO projects thus far included: a computer help-site at the Grist Mill in downtown Site 5 staffed by students who help local wheat farmers integrate technology into their practices; high school students mentoring middle school students; and the Digital Graphic Arts program at the Somerset Career and Technical Center (SCTC) working with downtown businesses to start up and/or improve the look and efficacy of their websites. Additional supports for students included a school-based social worker hired in the past few years – whose regular student sessions continued year round at the Site 5 High School, even through vacations and summer. These support programs were attributed with improved attendance. Several teachers and staff recognized these recent programs and initiatives as having a positive effect on the school's culture because they addressed the realities of many of their students' lives.

o An attempt at constructing a freshman teaming focus allowed for more common planning and collaboration for teachers and some common academic experiences for students. According to

our interviews with administration and faculty, the teaming model was implemented a few years ago with the following goals and intentions: to create a more smooth transition for students moving from the teamed structure of the middle school to the high school; to foster a sense of community among students and collaboration among teachers; and more practically, to decrease the amount of time 9th graders spent in the hallway. While the initial teaming focus helped meet these goals to a degree, it was only maintained over the years as a hybrid of the old and new structure. Despite this, teachers agreed that this structure allowed for more collaboration. For example, all 9th grade Algebra teachers tracked student progress with Moodle and used this information in collaborative work to inform instruction and student placement. In another example, each 9th-grade Geography teacher taught a "Consultant" level class (including students performing below grade level and students with an IEP). Therefore, Geography and Special Education instructors had been able to collaborate in a few ways: developing and implementing common assessments, revising curriculum and working with colleagues in their content area both in the middle school and high school. Some teachers indicated that they had a renewed sense of commitment to making the grade-level teaming model work to its fullest potential due to the promised addition of a paid team leader position for the upcoming school year.

Characteristic #5: Focused, effective leaders throughout the school and district guide improvement.

Research suggests that in improving schools this may be demonstrated in the following ways: leadership, students and other adults in the school community are focused on learning; building administrator's role is to lead instruction, not just manage the school; school leaders initiate progress then collaborate to sustain improvement; open and explicit feedback and evaluation is conducted constantly. Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

o The most successful and embraced school initiatives in the school were usually introduced and supported by administration then continued and sustained by teacher leaders. In 2002, the school used the Maine Literacy Project grant to hire a high school Literacy Integration Specialist who led the initiative that comprised an external audit in 2006, adaptive assessments, content literacy strategies, and reading remediation. With literacy as the professional development focus from 2007 to 2009, teachers were equipped with content literacy strategies and reading instruction techniques. We observed some teachers using these content literacy strategies--such as graphic organizers for note taking, "quick writes" to check understanding, and development of common content vocabulary--in their classroom instruction. Teachers and the Literacy Integration Specialist continued

the work surrounding literacy by sharing materials and Site 5 High School - 9 discussing ideas through email and informal conversations even after formal professional development opportunities and focused collaborative professional time were no longer required. With the support of administrative leadership, the Technology Integration Specialist, who provided teachers with ongoing support, resources, and professional development, developed technology initiatives. We found further evidence of embedded leadership in the collaborative efforts of teachers within the various subject area departments. For example, Math department leaders frequently analyzed student performance data from various sources, including internally developed common assessments, to improve instruction, curriculum and student placement practices. Teachers indicated that although some departments met inconsistently, department heads were important leaders and their collaborative content area work was "valuable and concrete." Teachers cited the "diverse, experienced and committed" educational staff as a key strength in their improvement work.

Characteristic #6: Thorough and sustained learning is provided for school professionals.

Research suggests that in improving schools this may be demonstrated in the following ways: regular professional learning time for all classroom practitioners to work collaboratively and independently; professional development focused on instruction and building intellectual capacity; external learning opportunities utilized to develop internal experts. Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

o The mathematics educators had created a collective culture within their department that encouraged, supported and pursued relevant, invigorating professional learning opportunities that appeared to contribute to improved student performance. Members of the math department had collaborated with other Maine districts and Education Development Center, Inc. to integrate technology into their curriculum and instruction through the Open Educational Resources in Mathematics project. SmartBoards or Promethean Boards were used regularly by math instructors to integrate online information into classroom presentations as well as utilizing other features that allowed them to save and print classroom presentation notes for students who were absent or needed further instruction at a later time. Math department members also indicated that they used Moodle to collectively track student progress, collaboratively and individually analyze data, as well as use student data to inform instruction and curriculum development. The department's dedication to collaboration allowed them to develop common summative assessments and "work together in small teams" to build "a focus on

curriculum, not just textbooks" according to a school administrator.

o Thorough and sustained technology training, led by the Technology Integration Specialist, was provided to staff in a variety of ways. The Technology Integration Specialist said, "I try to meet everyone where they're at." Various optional professional learning opportunities were offered to staff, such as "GoogleDinners" where educators were provided with dinner and training in various educational resources and tools within Google, a "Technology IEP" for individual teachers to earn CEUs for individualized training surrounding personally identified technology goals, and "Project Lab" after-school one-hour sessions in which technology experts worked with Site 5 Area High School - 10 individual teachers on a classroom or curriculum project that would be implemented in the classroom. The Technology Integration Specialist also worked with specific educators to pilot new technology that, if found useful and effective, may be introduced to the staff as a whole using the cooperating educator as an internal expert.

o As part of a district wide literacy initiative started in 2002, staff had been provided with some focused, invigorating professional learning opportunities. A 2006-2008 external literacy audit instigated cross curriculum literacy work in from 2007-2009. Although this formal time for professional collaboration was not maintained, many educators indicated that it was a useful learning experience, and they still informally shared ideas and materials about improving literacy instruction. In 2006, Scholastic Read 180 program was implemented to assess students, provide an intervention course for struggling students, as well as offer curriculum and instruction tools. One science teacher said the program had made a huge difference in her instruction, incorporation of content vocabulary and developing a common language among colleagues and students. A knowledgeable, focused Literacy Specialist guided this professional work for high school and middle school educators.

Characteristic #7: The school focus holds steadily on student and adult learning.

Research suggests that in improving schools this may be demonstrated in the following ways: a pedagogical emphasis on improving student learning; protected, focused learning time for all students; student learning emphasis on depth of core skills (reading, writing, numeracy and thinking); "a laboratory of adult learning" developing cognition and intellectual capacity among educators and leaders

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Through our observations, discussions, and exploration of policies and practices at your school, we identified **some evidence** of this characteristic. For example:

o District and school administration demonstrated an understanding that improving student learning was a key element of school improvement. The principal indicated that one of his goals was to increase the student focus of the school. District administrators applauded the principal's "kid oriented" beliefs and on-going work in "identifying the issue." While teachers suggested that more focused, sustained and collaborative methods could be used in their school's work to improve, they also said that "a lot of the initiatives could be great" and "the academic [initiatives and reforms] are what do work." Another school administrator added the insight that deep improvement "is a slow process." It was clear from our observations that classrooms were well-managed and students were attentive, even though the majority of learning was engaging students and educators at the "understanding" level, 78% of classroom observations indicated that at least "a majority" of students were engaged with the task at hand, and 52% of classroom observations indicated that at least "all but a few" students were engaged with the task at hand. These observations correlated with the school administrator's description of orderly classrooms and the school's related goal to increase students' engagement in higher order thinking.

o The school's efforts to emphasize its reform work on improving student learning in the areas surrounding core skills such as reading and numeracy appeared to contribute significantly to the improvement in student Site 5 High School - 11 performance in those areas over the past few years. As mentioned in previous sections of this report but worth repeating, some focused work surrounding literacy in the past ten years seemed to contribute greatly to increased student performance in related areas. In 2002, the district-wide literacy initiative was established with professional and fiscal support from the University of Maine's Maine Content Literacy Project. In 2006, this work dovetailed with a "literacy audit" conducted by an external consulting firm and focused literacy professional development and collaboration for the subsequent two years. Additionally, the district hired a Literacy Integration Specialist to work with grades 7-12 and teach reading remediation courses. For the past five years, the specialist implemented elements of the Read 180 program to replace and supplement reading instruction for students performing below grade level as well as share content literacy strategies for professionals in all content areas. A similar collaborative focus on student learning was evident in the Math department's work to make student placement, curriculum scope and sequence as well as daily instructional practices more strategically resulting in improved student performance. Math educators spoke fluently about their departmental analysis, using collaboration and the Moodle database, of student performance data on internally developed summative assessments as well as

standardized assessments. This "focus on curriculum not textbooks" resulted in the implementation of Core-Plus Math practices, extended math interventions for struggling students, daily Mental Math activities and other practices to improve student learning in numeracy.

Conclusions

Site 5 High School contained some common distinguishing characteristics of Improving Schools include: visible change; focused, effective leadership; thorough, sustained professional learning; and a school focus of both student and adult learning. The research also identified key elements for sustaining successful school improvement, including: common language and vision; interventions for underperforming and excelling students; data analysis; sustained, dedicated resources; intellectual capacity; and district-level support. Site 5 exhibited some of these characteristics and elements of an Improving School during our two-day visit and in our review of documents, interviews, classroom observations, focus groups, and conversations. The strongest and most pervasive of these attributes included:

□□ Individual educators and specialists with strong potential to develop intellectual capacity were working to maintain cross-curriculum and content area collaboration to improve instruction, curriculum and student performance.

□□ A school focus, especially in past years, on developing professional learning opportunities and improving student performance in reading and mathematics.

More Efficient Schools, as defined in the first phase of this multi-year study, are student-focused learning communities in which there is systemic evidence of **intellectual work, equity, and efficiency**. Site 5 exhibited some of these features of More Efficient Schools during our two-day visit and in our review of documents, interviews, classroom observations, focus groups, and conversations. The strongest and most pervasive of these attributes included:

□□ A solid understanding of content knowledge demonstrated by both educators and students.

□□ Initial efforts to provide collaborative opportunities for educators that result in some shared academic experiences for students.

Preliminary Cross-Site Research Findings

Research data collected during the high school Site study two-day site visits included 94 distinct classroom observations in English, math, science, history, visual/performing arts, foreign languages, health, PE courses in grades 9-12. An additional 12 observations were made of support courses (study hall, learning lab, advisory or homeroom), and 2 observations were made of student activities in the school library. These 108 observations included courses identified specifically as special education classes as well as "mainstreamed" classes including students with special education status. Observations were made at the beginning, middle and end the class period as well as throughout the school day. Researchers also conducted a total of 74 interviews of individual and groups of school staff and administration as well as an interview with at least one district administrator from each site.

A preliminary cross-site analysis of the high school Site study data revealed many findings similar to those reported in other national and international studies of improving or turnaround schools. High schools with greater improvement in student academic performance implemented visible changes and "quick wins," had higher quality leadership, and provided focused professional learning and collaboration. Each of these aspects included a focus on improving student learning through interconnected strategies that remained true to elements of a school vision or goal. In addition, Improving High Schools in Maine demonstrated some practices of intellectual work, equity and efficient use of resources seen in More Efficient Schools in Maine, as described in the report of phase I of this study *More Efficient Public Schools in Maine: Learning Communities Building the Foundation of Intellectual Work*. In fact, the two high schools with the most improvement in all five quantitative improvement categories over the four years of analysis for this study (2006-2007 to 2009-2010) were also the schools that most frequently demonstrated higher levels of intellectual work (transformation) in classroom observations.

Visible Change & Quick Wins

In our review of literature about improving schools and turnaround schools, it was evident in many examples that making the change and successes visible to school staff and the larger community was crucial to sustaining philosophical, financial and practical support of the school's improvement efforts. Even within the first few months of reform, underscoring the "quick wins" was important. Our overall qualitative rankings of the Improving Site study high schools closely mirrors both the quantitative student performance rankings and our scores of each school in the school level reports in the area of visible change. As one Maine administrator said, "Celebrate the successes

as often as you can in those first few years." While often symbolic, these gestures of positive action indicate to invested parties that the change is sincere, substantial and here to stay.

Improving High Schools utilized and coordinated external supports to improve student learning.

Although community and parental involvement is not always a crucial aspect of higher performing or More Efficient high schools, it appears that support (even if not involvement) from the greater community is critical to sustaining improvement efforts. And, in the best scenarios, it is clear that the school "supports the education" of each child instead of being the "sole source of education." While parents do not necessarily have to be present in the school building or at school functions, their negative pressure against change can thwart even the best attempts of reform. In fact, these measures to initiate and sustain change and improvement must also win over key members of the staff as well.

It is interesting to note that four of the Improving Site study high schools had worked closely with an external intermediary at some point in the past several years. In some Sites, an external audit was conducted, and other schools had hired school coaches and education consultants to guide professional learning as well as provide feedback on regular practices. However, the time period in which the school interacted directly with this intermediary did not correlate regularly with improved student performance levels in a cross-Site analysis: some schools were currently working with intermediaries and some had discontinued that direct contact a few years ago. Schools were also mixed in their perception of the value added by the intermediary: some schools were highly supportive and cited school coaches as critical to their progress while other schools had even appeared to have negative experiences with the external experts. However, regardless of the schools reaction to the intermediary, these four schools did credit the work their staff had done during the time the intermediaries were involved for some of the improvement and positive practices currently in place allowing them to sustain their work to improve their school.

Many Improving Site study high schools had recently undergone a structured self-study that appeared to instigate a felt need for change.

One common visible stimulus or method for prompting change was the NEASC accreditation process. Four Improving Site study high schools had received NEASC accreditation within the past few years, and two of the schools indicated that past years' failure to earn full accreditation was a key jumping point for change. The self-reflection process required by NEASC as well as professional collaboration and analysis of the

school's programming appeared to prompt these schools to focus their professional work and resources into apt areas of need in their school.

For example, one high school lost its NEASC accreditation in 1999 due to inadequate facilities. This prompted a community group to raise over one million dollars to improve the building. Many community and staff members said that this visible change also prompted significant philosophical changes in the school community to agree that the school needed to improve. So, the school began the process of analyzing data to track student progress, pinpoint areas of curriculum need and increase productive professional time. This led to many changes that were given another jump start with the hiring of a strong principal in 2004 who worked collaboratively and forcefully to develop several reforms: increased time, focus and structure in professional learning time; thorough analysis of student performance data; significant research and implementation of tested structures and practices; curriculum focus on depth.

Other Site study schools also cited the professional work required by the NEASC accreditation process as an impetus for deeper analysis of practice, broader vision of possible models, and more professional time to engage in self study. Many of these schools created professional learning groups or teams that discussed student work or instruction practices. According to one twenty-year veteran teacher, the process of self study for NEASC paved the way for change: "We became reflective." This process often also highlighted areas of need within the school that were addressed in order to meet accreditation requirements. For example, one school created a full-time nurse position as well as a social worker position that worked throughout the summer to address the needs of at-risk students. They also created an in-school suspension program (and eliminated out-of-school suspensions) that reportedly increased student attendance rates and decreased suspensions.

Many Improving Site study high schools had used significant grant funding for highly visible and frequently recognized improvement reforms during the time of the indicated student performance.

Another visible change apparent in Improving Site study high schools was the use of grant monies. Three of the high schools continued to have significant external funding at the time of our site visits. However, purposeful, focused use of the monies appeared to correlate with higher improvement gains, qualitatively and quantitatively.

Improving Site study high schools had well established, successful grant writing personnel among their school or district administration. In the top three performing schools, these people appeared to purposefully apply for (and usually receive) grants that directly connect to or extended existing work in the schools that had been analyzed

and found as contributing to improvement in student academic performance. However, in the lowest ranked (qualitative and quantitative) Improving Site study high school, grants were utilized but appeared to be the driving force of the school focus thereby changing the focus any time a new grant was received; a classic example of "grant hopping."

All of these schools had some members of the school community visibly emphasizing the successes of these grant-funded programs. However, it was the schools who improved the most in terms of student performance who appeared to thoroughly understand and believe in the connection between the grant funding and student learning. For the other schools, the grant funded work was less collectively understood and sometimes had involved only small populations of students and professionals.

It appears that, while visible structures and external instigation for self-study are important to the process of improvement, they must be sustained and internalized in order to be successful. Sustaining these efforts requires on-going professional research and reflection to evaluate practice and invigorate it with new ideas. This process must include focus and support from school leadership as well as an intellectual investment from educators. In this way, the visible change becomes less of the substance of the work and more of an acknowledgement of the constant work being done even beneath the visible celebration.

Leadership

Effective leadership can capitalize on circumstances available to change, set a course for improvement, and implement research-backed programs and strategies that would deliver improved instructional practice and student performance. While successful leadership of an Improving High School appeared to require a principal who can effectively communicate his/her vision for improvement and rally staff to make change, it also requires a collaborative effort between focused building leadership and strong teacher-leaders. It is also important to note that leadership in turnaround and improving schools may be different than traditional leadership in More Efficient Schools. It is a gargantuan task for school leaders to get all their wagons facing westward. It is an equally daunting task to assure all stakeholders that "west" is indeed the right direction. Further, in the face of substantial obstacles, it is imperative to redirect course as often as necessary in order to reach the destination with the trust of

personnel and the westward vision fully intact. In short, effective leadership involves risk-taking and stamina.

Effective leadership creates a focused vision for improvement that guides decisions about teaching and learning and, subsequently, inspires among its staff the shared belief that change is possible.

For many of the improving Site study high schools, a purposeful, rigorous self-reflection process (brought about either by the NEASC self-study or the school's NEASC outcomes) highlighted the need for change. From this process, leadership identified areas for improvement and created a strategic plan. Decisions regarding teaching and learning were funneled through the tenets of each plan's vision. In each Site study high school, leadership procured resources that aligned with their reform strategy and allotted them to support teacher and student learning. Such leadership efforts result in an achievement and belief-based school-wide culture where genuine caring about students and their academic success is the norm.

For example, following the loss of NEASC accreditation and a community's effort to revitalize the school's physical plant, one high school's former principal—described as a “visionary” by the current superintendent—set forth a clear vision and high expectations for students and teachers with the implementation of a standards-based curriculum. The principal set high standards for all students with rigorous graduation requirements, and with the implementation of a robust interventions system, he expected that all students would meet these expectations. He said of the implementation process, “We spoke in absolutes. *All* students would...” He was action-plan oriented and his communication skills inspired confidence among his staff and community. He created a culture of collaboration and collegiality using a fist-to-five consensus protocol with most major initiatives. In fact, with any issue that came up, there was conversation that invited all stakeholders to the table.

It is worth mentioning, however, that a commitment to change brings with it a level of exhaustion. A veteran teacher said: “This is my most tiring year yet.” A teacher group said: “Constant revision of rubrics...kids who don't meet standards again and again are a lot of energy...we are tired...but not discouraged.” It is clear that school reform requires a significant amount of stamina. For this reason, school staff indicated that it was imperative that a cohesive vision be in place to guide and consistently reinforce these efforts.

Effective leadership empowers teachers to lead resulting in a shared accountability toward improvement.

Leadership in improving schools does not always need a principal with a dynamic, visionary personality. However, leadership does require a principal to initiate progress and effectively communicate the school's vision for improvement, and then enlist the talents of teacher-leaders to create a collaborative culture of systemic change. Many teachers who felt valued by their building leadership felt they had something of worth to contribute to their school. They stepped into leadership roles and served as internal experts, staff advocates, and advisors to their building leadership.

Building this culture of leaders first involves valuing and empowering teachers to lead. At one school, it was clear that the former principal valued all faculty and staff for what they could bring to the table. The assistant librarian said that the principal's effectiveness as a leader rested on the belief that "every staff member is a potential leader in terms of instruction and [intellectual] gifts." In another school, the Leadership Team felt supported by their principal and assistant principal in their role as "liaison between teachers and administration." Building leadership also supported their emerging role as advocates for instructional learning as evidenced by their restructuring of the district-mandated "Teacher Rounds." Many teachers commended the current principal as an "encouraging force in pulling together teacher-leaders" in the school's efforts to implement the SIG plan. The assistant superintendent indicated that she is a good source of "encouragement" for staff and "has potential" and "creates buy-in." The principal's supportive nature was reflected in the willingness of several veteran staff that volunteered for leadership roles with various SIG initiatives.

Literature suggests that successful principals in improving schools know how to place "right people in right roles," observed in the appointment of "effective leadership teams." At one school, the Leadership Team was commissioned by administrative leadership to advise the principal on matters that affected teaching and learning, such as school culture and best practice. They saw their role as a consulting group for the principal, who would often present them with the "big idea" and they would help to implement it. It was evident that this group reflects a continuous effort to improve. For each of these schools, with the "right people in right roles", administrative leadership empowers teacher-leaders to create a school culture conducive to continuous improvement, not complacency. Building leadership encouraged time for their teachers to learn more deeply about their craft and supported their professional endeavors outside the classroom. The teachers we observed and spoke with who held leadership roles within their school came across as empowered, generally supportive of their building leadership, energized, and appeared to take ownership of their school's progress and successes, but by no means rested on their laurels. Energized by their school's direction, they felt the work still to be done was worth doing.

Professional Learning & Collaboration

Research has identified thorough, focused and sustained professional learning as a critical component of school improvement. Many successful school reform measures include a re-structuring and/or increased focus and accountability on providing time for educators and school leaders to engage in research, data analysis, self study and collaboration. This time is often provided daily, focused on instruction and capacity building and includes collaborative as well as independent learning experiences. This work allows school and district leaders to identify the strongest learners among their staff and invest in these people to provide internal leadership and expertise.

Our observations of the Improving Site study high schools indicated that efficient, effective professional learning practices correlated with both qualitative and quantitative school rankings. In the schools with highest rankings and most improvement, professional development time was focused, invigorating and relevant to student learning.

It may be interesting to note that while literacy appeared to be a common focus of More Efficient schools in our previous study, only two of the Site study schools showed evidence that this was their emphasis, and these were not the two highest or lowest performing schools. Similarly, technology was cited by only two schools as a crucial aspect or strength of their professional learning, and again these were neither the two top or bottom ranked schools. Also, the use of data was mentioned as key to improvement only in strongest Improving Site study high schools, other Site study high schools mentioned that data was used by administration and sometimes teacher leaders but not by teachers themselves.

Improving Site study high schools incorporated time for teachers to conduct classroom observations while their peers were teaching.

As mentioned above, self-study appeared to be a prevalent theme across the Improving high schools and seemed to correlate strongly with levels of improvement and student performance. It seems that a key component of this reflection is to focus professional learning time of collaborative efforts to improve instructional practices. Every Site study high school mentioned the value of having educators observe their colleagues demonstrate their craft as well as providing feedback on instructional methods and classroom practices. All five schools had provided time in recent years for teachers to observe each other. Although various classroom observation tools were used, most schools also provided embedded time for educators to reflect upon and

discuss what was observed. The highest ranked schools had formal protocols for analyzing significant numbers of observations to identify schoolwide strengths and weaknesses which in turn focused future professional development.

For example, one school had an iWalkthrough team and Data Team consisting of teachers, guidance counselors, social workers, administrators. These teams trained all teachers to conduct classroom observations then analyzed the data collected, reported their findings to the staff and collectively developed suggestions for further study or focus of future professional learning experiences. Recently, they identified that only a few observations indicated that teachers and students were working at higher levels of Blooms Taxonomy. Therefore, an internal team of teachers did further study with external resources then presented the data found in their school along with external research about the importance of this area and ideas for improving this practice. A subsequent round of observations reported higher levels of Blooms but the school community still agreed that this needed to continue to be a focus of their work.

Administrative observations were also used to support new and/or struggling teachers. All administrators indicated that teachers who were not demonstrating an acceptable level of student performance or effective practices were held accountable with professional learning plans that incorporated goals and classroom observations. Observations were usually increased for professionals not appearing to demonstrate improvement or resisting improvement efforts. New teachers also received more classroom observations by both administrators and colleagues, in both evaluative and supportive roles.

Three of the strongest Improving Site study high schools had established protocols or methods for allowing colleagues time embedded within the contractual day to share successful practices with each other.

The two top ranked Improving Site study high schools provided daily time within the contractual day for all classroom teachers to work collaboratively or independently without student duties. This time was structured and often followed an externally established protocol. Teachers were held accountable for the use of this time through administrative observations and/or written reports of their meetings. Some of the other Site study schools provided time regularly, although not as frequently (approximately 2-3 times per week). The lowest ranked Improving Site study high school reported that there was a significant use of common content area prep time in the Math and English departments to develop common assignments and discuss successful practices, but it was not a practice prevalent among all teachers.

Improving High Schools invested in training school staff and educators to be internal experts who then trained and mentored other staff members in specific areas of professional learning.

Improving Site study high school provided extensive professional training or learning experiences for identified individual educators. These teachers and/or staff members usually attended external events or did outside research with experts in the field at the cost of the school/district. They were then required to return to their schools and implement and evaluate their learning. Upon deeming it relevant and effective, these individuals were given the responsibility to share their learnings or even train and mentor their colleagues. This added responsibility was rarely combined with any financial incentive or stipend, but it did appear to provide recognition to school leaders as well as engaged the best learners in the building with innovative ideas about their craft.

For example, in one school the librarians run a mentoring program with high school and middle school students that was mentioned as a potential model for other mentoring opportunities in the school. In another school, there was significant professional development surrounding "train the trainer" for technology use, best practices, classroom observations and teacher evaluations. As one school board member said, "We have internal experts within the system. Professional development continuation goes on today. That's part of our culture, and we do it mostly internally now." At another school, the math department leaders worked closely with outside professional learning organizations to enhance their curriculum and develop the capacity to use technology in their instruction and content area. One school had developed teacher leader groups recently "building on internal capacity" as well as hiring a Dean of Instruction who was a former teacher and now leads much of the professional work, although there are also recognized informal leader/veteran teachers, "Art, Science and Physical Education departments have been strong throughout time."

It appears that increased investment in relevant, invigorating professional learning is a crucial but not sufficient method of improving student performance. It seems to be a necessary first step to building a culture of critical thinking and improvement.

Intellectual Work

During the course of our study of higher performing and more efficient public schools in Maine, our literature review and school visits led us to identify a pervasive culture of

intellectual work as a distinguishing characteristic of these "More Efficient Schools." The key to this culture is the inextricable combination of caring about children through caring about their intellectual development. The schools are student-focused learning communities in which there is systemic evidence of Intellectual Work were defined by three elements:

1. Understanding: focused, sustained and thorough academic (content knowledge and fundamental skills) and social/behavioral (interpersonal relationships, social trends, cultural norms, etc.) learning.
2. Transformation: constant inquiry using various reasoning processes and all levels of cognitive thinking to work with information and concepts in order to create innovative solutions.
3. Sharing: clear communication of invigorating conclusions that enhance existing ideas.

This continual cycle of learning and improvement also appears to correlate with student performance levels and other attributes of improvement in Improving High Schools studied in phase II of this project.

While high levels of transformation demonstrated by 1) educators in the classroom, 2) professional learning opportunities and 3) within selected classroom learning tasks seem to be necessary, they are not alone sufficient to increase levels of transformation and academic performance demonstrated by students.

The research suggests that Intellectual Work by adult professionals is an important aspect of beginning improvement. The top three schools in terms of quantitative improvement over four years had consistent, significant adult practices in place that required educators and administrators to research, reflect and analyze both their own school's data as well as material from outside resources. The structure of these practices varied by school: representative cross-content leadership team, consensus protocols, peer mentor coaches, professional learning communities, grade-level teams, content-area departments, etc. In two of the Improving schools common time without students was available and utilized during the contractual day, significant results of these practices had been collaborative development of common assessment rubrics in core content areas and assignment product descriptors that required students to demonstrate transformation to meet the standard of proficiency.

However, there appears to be a crucial next step to implement these tools and practices in a manner that requires students to demonstrate transformation both in completed course work and classroom activities. When this was done, it took various forms: scaffolded, explicit instruction of the writing process (essay instruction); pointed

questioning by the teacher that solicited higher order cognitive thought responses from a large number of students in the class (Romeo & Juliet discussion); hands-on activities requiring synthesis of prior knowledge, evaluation of observed system and innovative resolutions to potential problems (cat lab); thorough, concise and relevant research (independent study project); analysis of expert in field then application of techniques to individual work (Georgia O'Keefe art project), and others. The requirement to demonstrate transformation within educators' instructional practices, students' in-class activity and the designed task at hand seem to be the magic trifecta of improving and/or sustaining high levels of student academic performance.

In fact, within the adult intellectual work at one school, practitioners were thoroughly analyzing a colleague's assignment and student work to determine whether the students were actually demonstrating higher order thinking or if the teacher had led the students so clearly that the student work was really just repetition of the teacher's transformational ideas. The teacher sharing the assignment even said he was concerned that he had done so much scaffolding and instruction so as to prevent the students from failing that he began to realize when correcting the student essays that they were just repeating ideas from his examples or lectures and very few students had developed original thesis statements or conclusions. The result of the collective analysis of this assignment led to the teacher having a more precise methodology when assessing the essays that distinguished essays with unique ideas from essays repeating his transformational ideas. The conversations also raised a larger concern among these educators that they were actually working harder than their students and that much of their work was not translating into transformational work being done by their students.

An increased focus on writing across the content areas correlated with the strongest Improving High Schools.

The strongest Site study schools in terms of overall academic performance and qualitative evaluations had a commonly stated, evident practice of teaching and assessing writing across the curriculum. In these schools, both students and educators said that writing strategies were taught to some degree in various content areas and assessments that included the quality of writing techniques were used in most classes, even science, art and health. One school commonly used a scaffolding approach to teach writing skills in English, Science and History classes that was combined with an English course for all ninth grade students that focused on building vocabulary. Four schools had internally developed common rubrics for various rhetorical modes of writing that were used (although sometimes adapted by individual teachers) across the curriculum.

It can be hypothesized based on this information that ample opportunities for and significant expectation of adults to demonstrate higher levels of cognitive thinking (transformation) in both their professional work and classroom instruction are important steps to improving a high school. However, it appears that a crucial (and possibly more difficult or further along in the school's progress) step is to implement these elements of adult intellectual work in a way that directly influences expectations, performance and assessment of student learning. In schools where transformation is evident within student work, there are higher levels of academic proficiency on standardized tests and higher scores regarding graduation. All of these Site study high schools seem to be working diligently to improve student performance levels of academically struggling students, but interestingly there is a correlation (albeit fuzzy) between the schools with the highest qualitative evaluations and those who are deliberately attempting to address the needs of accelerated students performing above grade level or exceeding standards.

Equity

From prior research and literature review, equity was defined by the practices of teachers and leaders demonstrating their belief that they have a moral obligation to focus on the intellectual development of students as a means towards a better world and high standards and high expectations being held for all members of the school community. We continued to use quantitative measures of MHSA test scores that identified the progress of both students who are "meets plus" and "partially meets plus." This allowed us to discern the movement of learners performing below the standard from those learners meeting or exceeding the standards, to ensure that both groups were improving. All Site study high schools in this study had positive growth with both populations of students.

Although usually forefront on paper and rhetoric, equity was not always the most pervasive practice or belief evident in the school culture, especially with regards to accelerated students.

Our observations still included examples of accelerated students having completed the assignment at hand and unengaged in academic work as well as struggling students waiting for the teacher to assist them individually. One school proudly explained that they did not offer Advanced Placement courses as an example of equity, but these comments were countered with students, parents and teachers as well as our analysis of curriculum materials that indicated some accelerated students were not adequately challenged academically. Another school had a reportedly (we did

not observe any courses or interview any educators from this program) very strong vocational/ technical program that attracted students who had historically struggled to meet core academic standards. But again, students and educators indicated that students who excelled beyond the standards in either vocational or traditional courses often had to find supplemental academic challenge through their own initiative or personal connections.

Raising post-secondary aspirations was another stated goal and focus common to most of the Improving Site study high schools. All four schools had programs to encourage students to consider educational pathways after high school graduation: Early College, online college courses, collaborations with local university campuses, financial aid information sessions, college fairs, individual counselor meetings with all senior students, staff member dedicated solely to college or career preparation programming, related grants, and other programs. This focus clearly increased the number of students who applied and enrolled in college following graduation for most of these schools. It also appeared to shift the community beliefs surrounding education to be more supportive. However, this focus did not seem to address another common concern at the Improving Site study high schools: support and increased aspirations for accelerated students were rarely evident. Some accelerated students and their parents as well as some of their educators indicated in all of the Improving Site study schools that colleges recommended to them by school counselors or school computer programs would not be academically rigorous or socially invigorating. In some Sites, it was indicated that students had been discouraged from applying to more rigorous universities by school staff who did not believe they would be accepted or that they could not afford to attend.

Interventions were also provided much more frequently for students struggling to meet academic or behavioral standards than accelerated students. All Improving Site study high schools had robust intervention systems to help students performing below the standard or grade level expectations. However, opportunities for accelerated students were usually limited beyond Advanced Placement courses (with relatively wide offerings at two schools and only English offered at a third school). And accelerated offerings (such as Honors Challenge and online courses) provided by the schools were usually optional and reportedly not cognitively more challenging than coursework done within the school's regular curriculum; they simply provided more work of the same level to students who finished prior to due dates or had met all of the school's standards in a certain area.

So, again the first step of identifying equity as a key to school improvement was apparent in these Improving high schools. However, the crucial implementation of this

belief within all aspects of educational practice was strategically evident for struggling students but not yet clearly prevalent for accelerated students in these schools. Improving high schools seemed to have a common focus on "bringing up the bottom" while not yet embarking on "pushing the middle" or "opening the top."

Technology was provided equitably to all students.

Three of the Improving Site study high schools provided 1:1 laptops to all students. One Improving Site study high school demonstrated significant use of laptop classroom carts, and students from this school indicated that computers were readily available to students throughout and beyond the school day. This included alternative education students and self-contained special education programs in most schools as well. In fact, one geographically isolated rural school provided free dial-up internet access at home for students and their families.

While the quality of use and programming, relevance of hardware, and level of professional training varied among all schools, access to the internet and computers was widely available to students and educators in all four schools. However, our notes from interviews and classroom observations did indicate that the quality of the use of technology largely shadowed the level of intellectual work in each school. For example, the Improving Site study high school deemed furthest along in its progression to becoming a More Efficient School also used technology in an academic manner more prevalently than the other three schools. Also, the school that shared the highest levels of transformation demonstrated by educators also showed significant use of technology by educators in the classroom, although this was also the school that did not have 1:1 laptops and students were often not using individual technology nor were students demonstrating high levels of transformational learning in this school.

Professional collaboration largely focused on providing equitable, and often common, learning experiences for students.

According to interviews with educators, school administrators as well as review of agendas of professional time that were available to researchers, all Site study high schools used collaborative professional time to develop common curriculum in certain content areas (most often Math and English) and at specific grade levels (most frequently 9th grade). There were also internally developed school-wide rubrics in some content areas in at least three schools. All of these Site study high schools also had professional time dedicated (either as a stipended position or within the contractual day) to discussing individual students. This time included celebrating student successes through nomination, advocacy and selection of recognized students, such as "Student of the Month." All schools reportedly also had dedicated time to thoroughly discuss

individual students at-risk due to academic failure and/or behavioral issues, such as regular meetings of a Student Assistance Team. Staff members of all schools indicated that these opportunities to discuss individual students were crucial to keeping track of student progress, keeping students engaged and preventing students from slipping through the cracks. Staff comments as well as our observations indicated that a vast majority of time dedicated to this work was focused, productive and allowed educators to address issues of inequity or student needs. Often, this time followed a strict protocol and involved contributions from various staff members.

Efficient Use of Resources

Stage I of this study, involving More Efficient Schools, identified schools performing above state comparisons in academic measures and below state comparisons in terms of fiscal expenditures. However, for this second stage of the study, involving Improving High Schools, fiscal expenditures were not taken into consideration in quantitative analysis of schools. However, the Improving Site study high schools were qualitatively analyzed with regards to the functions and systems that defined efficiency in the More Efficient Schools: more efficient use of the scheduled instructional day, even often extending instruction beyond the formal school day for supplement and support; use of budget resources, often creatively, to provide essential programming for student learning; use of technology to extend learning beyond school building and school day for both students and staff; focused, purposeful use of community resources to supplement school programming; using effective human educators (not technology) to directly interact with and teach students in the classroom setting. For the purpose of this study of Improving Schools, we are focusing on how school personnel and systems demonstrate the use of these human and other available resources.

All Improving Site study high schools had good levels of student engagement with the learning task at hand, not considering the quality of the task itself. Overall, 54% of classroom observations reflected "all" or "all except a few" students engaged in the learning task, and only 17% of observations indicated "less than half" of students were engaged. The educator in the room appeared to most often be in a role that required direct interaction with students with only 17% of observations reflecting the educator "working independently" at any time instead of either directly observing or engaging with students. In fact, the most frequently recorded educator roles were "facilitating," "presenting," and "conferencing." In addition, a majority (54%) of observations reported 11-20 students in the classroom, and 87% of observations

reported one educator in the classroom. Most school's, especially students, reported that "small" class sizes contributed to their improved performance. In fact, 32% of observations reported classes with 1-10 students and only 6% of observations reported classes with 21-25 students and no observations recorded more than 25 students. So, while this may inversely affect financial efficiency, it was reported as an important change or investment to improving student performance.

Purposeful, focused use of external monies appeared to correlate with higher improvement gains, qualitatively and quantitatively.

The Improving Site study high schools had well established, successful grant writing personnel among their school or district administration. In the top three performing schools, these people appeared to purposefully apply for (and usually receive) grants that directly connect to or extended existing work in the schools that had been analyzed and found as contributing to improvement in student academic performance. However, in the lowest ranked Improving Site study high school, grants were utilized but appeared to be the driving force of the school focus thereby changing the focus any time a new grant was received; a classic example of "grant hopping." Another concern with regards to this theme is that in the schools with the most significant grant funding, it appeared that a lot of the programming and personnel contributing to the improvement were soft funded so if/when that funding was not received, it would significantly challenge the school's continued efforts.

School leaders had sustained, explicit, purposeful methods for gaining community support (fiscal and philosophical) for school programs and initiatives.

All of the school leaders in this study appeared to understand the importance of and work diligently to build and maintain strong relationships within the community at-large. Four of the five schools used students to advocate, celebrate and represent the school at community forums, meetings and events. Most of the school and district leaders represented the school on local executive boards or community groups that incorporated business leaders, politicians and townspeople. The schools worked proactively to engage community members and community groups within the school building and with students by hosting local events, having pre-emptive open meetings to explain upcoming changes in practice or policy, communicating ideas on social networks, and just talking plainly with people on a personal level when in town. In some of these schools, community work translated into significant financial support of school programming. In one school, an alumni group worked collaboratively with a large, local business to raise 1.2 million dollars to improve and add on to the school building. In another school, the assistant superintendent and principal said their

community connections by and large were the reason the recent school budgets passed even in these times of fiscal austerity. One school benefitted immensely from a privately funded education enrichment center located in the district that provided tutoring, mentoring, teambuilding, health and credit recovery opportunities free of charge or at very low cost.

While each school we visited appeared to have various measures that provided significant cost savings or financial resources beyond the local budget to support programming, efficiency in terms of developing a self-sustaining well-oiled machine was still an area in which all the Improving high schools seemed to be only in the beginning stages. Many of the programs or even physical spaces that were celebrated by the school and its community were under scrutiny as local budgets were reduced, and dependency on outside financial support was very heavy. A couple of the schools appeared to have personnel who were very good at earning grants, but this method of funding also seemed to present its own challenges (stability vs. uncertainty, shifting focus, use of time and resources to get these monies). Also, it was our qualitative observation that most of the Improving high schools certainly could have benefitted from taking measures to "tighten the ship" in terms of scheduling, time management, use of available human resources, and engagement in intellectual work.

Final Note

As noted earlier in this report, additional case studies need to be conducted with a sample of elementary and middle schools before a complete cross case analysis is completed. However, this preliminary cross case analysis of the five high schools has surfaced some characteristics which may well distinguish Improving Maine schools from typical schools, and as such, provide some possible guidance to schools seeking ways to improve their high schools.