

FACT-FINDING REVIEW

Worcester Public Schools

Massachusetts Department of Education
Fall 2006

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Introduction

The diagnostic fact-finding review at underperforming schools is a cooperative process designed to provide objective, constructive feedback about the adequacy, appropriateness and effectiveness of teaching and learning in English language arts (ELA) and mathematics at each school, and the enabling conditions that make instructional improvement possible.

The process begins with a district explanation of its most pressing needs in four key areas and its working hypotheses regarding the primary reasons for low student performance, presented in the District Plan for School Intervention. The fact-finding review examines each of the four key areas independently to verify, clarify and deepen district and school understandings and to identify strengths on which to build and diagnose weaknesses that may be impeding district and school improvement efforts.

The resulting Fact-Finding Report offers clear findings of strength, areas for improvement and priority recommendations for action at the district level and for each school. District and school leadership teams will use the recommendations from the report to complete a final District Plan for School Intervention for each school. This plan will be submitted to the Commissioner and the State Board of Education.

Overview of Report Structure

The Fact-Finding Report provides an Executive Summary on the district that answers the question, “What are the systemic reasons for the low levels of student performance in the district?” The Executive Summary presents the analysis of the current conditions in the district that have contributed to the low levels of student performance in each of the four key areas, as presented in the District Plan for School Intervention, and the trends across all schools in relation to the fact-finding team findings. In addition, it provides a cumulative assessment of priority needs to be addressed at the district level in order to support improved student performance at each individual school.

The remainder of the report contains specific reports for each school, organized around the four key areas of inquiry. Under each key area of inquiry, the report contains findings, supported by data and evidence collected through document review, focus group interviews and classroom visits. Linked to these findings are recommendations for improvement.

The four key areas of inquiry are: standards-based teaching and learning (ELA and mathematics); informing practice with data (ELA and mathematics); time for teachers and students; and, leadership for instructional improvement, both at the district and school level.

In the Worcester Public Schools, seven underperforming schools were visited from October 30th through December 5th, 2006: Burncoat Middle School, Burncoat Elementary Preparatory School, Forest Grove Middle School, Lincoln Street Elementary School, Sullivan Middle School, Chandler Elementary Community School and Chandler Magnet Elementary School.

Executive Summary

There are a number of foundations in place that can be built upon to improving teaching and learning in the Worcester Public Schools (WPS). Across schools, the fact-finding team noted a safe climate, positive interactions and a learning environment in which students are willing to take risks. Despite budget cuts in recent years, the district has effectively allocated resources to ensure small class sizes. Classroom observations and interviews with school leadership and staff indicated that there are sufficient human and material resources available to support the teaching and learning process.

There is adequate time for instruction in both English language arts (ELA) and mathematics across grade levels. At the elementary level, students are receiving a minimum of 90 minutes daily instruction in ELA and 60 minutes in mathematics. The Houghton Mifflin (HM) Three-Tier Program provides struggling students an additional 30 to 60 minutes of ELA instruction. At the middle school level, students receive approximately 55 minutes instruction in each subject area. Students with the greatest learning needs receive an additional instructional period in either ELA or mathematics.

A significant focus at the district level has been on the “fidelity of implementation” of the ELA and mathematics core programs. Evidence collected by the fact-finding team indicated that teachers consistently used the HM and Everyday Mathematics (EDM) programs and supporting materials at the elementary level. Components of the Connected Mathematics Program (CMP) Workshop Model were observed across middle school mathematics lessons. Through use of an E-walk protocol – a classroom walk-through tool used by school principals and district administrators – the district has monitored the structure of the lesson, pacing and level of implementation of the core programs in WPS classrooms.

The district has instituted the Measures of Academic Progress (MAP) assessment across the WPS in grades 2 through 8. Administered three times per year, the MAP provides teachers another source of information to “diagnose” student needs. Teachers reported enthusiasm about the information provided by the MAP. Most teachers are using MAP data to group students. The district has provided, and continues to provide, teachers and school leaders with training on how to use MAP data to inform classroom practices.

In addition to the MAP, a range of other assessments are used across the district (e.g., Dynamic Indicators of Basic Early Literacy Skills [DIBELS], Diagnostic Reading Assessment [DRA], *Assistments*) to monitor student learning. Assessment information is used to provide targeted academic interventions to students based on need – both within the school day and after school. The type, structure and amount of time dedicated to academic intervention programs varies across grade levels and subject areas, but all schools visited by the fact-finding team are implementing sufficient and purposeful intervention programs to address student learning needs.

Goals established by the district to ensure fidelity of implementation of the core programs, use of data and targeted intervention programs have been successful. This has been a logical focus because many of these initiatives are relatively new and it is impossible to measure the success of a program or data system without proper implementation. However, extensive focus on the structural implementation has resulted in limited attention to the quality of instructional practices. Across schools, instruction was a significant weakness identified by the fact-finding team. This is characterized by the lack of three, inter-related practices, which are necessary to provide effective teaching and a positive student learning experience: 1) limited use of differentiated instructional practices; 2) low levels of academic rigor; and, 3) limited use of formative assessments.

Classroom lessons observed by the fact-finding team often lacked differentiated instructional practices to meet the varied learning needs and styles of individual students. That is, teachers did not differentiate instruction by *content* (materials used), by *process* (the strategies used to assist students in accessing the necessary content and skills) or by *product* (student work and/or desired outcomes). Many classroom lessons observed by the fact-finding team tended to be whole group and teacher-led, even when students were placed in small groups. In focus groups, many teachers reported that placing students in homogeneous ability groups (i.e., low, medium, high) constituted sufficient differentiation for instruction. While this is a good initial step, homogeneous student groupings do not provide an individualized learning experience within the context of the daily lesson, which is necessary to enhance the skills that students have and address areas that require improvement.

In addition to the lack of differentiated practices, the fact-finding team noted that classroom lessons were not rigorous, nor were there high expectations for student learning. Students rarely had dedicated time to examine their thinking or explore lesson content to deepen understanding. Teachers did not use probing questions or student responses to extend key concepts, challenge students or to change the direction of the lesson. Students were given few opportunities to reflect on the content presented, ask questions and self-correct as a result of a teacher prompt. Current implementation of the CMP Workshop Model (Launch-Explore-Summarize) provides a specific example. CMP is designed to promote active student engagement with mathematical content. However, classroom observations indicated the Launch component often ran too long and/or lacked a rigorous, higher-order question, thereby limiting opportunities for student exploration during the second component of the Model. In addition, the Summarize component, which is intended to provide a review of the learning objective and opportunities for student synthesis of learned materials, was rarely observed.

Use of formative assessments to check for student understanding and to make adjustments to the lesson in progress, are essential to providing a differentiated and rigorous learning experience for students. Across many classrooms observed by the fact-finding team, formative assessments (e.g., questions, informal observations, written reflections) were not evident and/or they lacked the depth and rigor to assess students' conceptual understanding. Most teacher questions elicited only one- or two-word responses and were not followed by probing questions that required explanation to further challenge students. Observations of student work that did occur were most

often used to gauge whether student responses were correct or incorrect. Teachers did not go beyond the factual to explore *why* students answered incorrectly or to provide opportunities for students to re-assess their work and self-correct.

The lack of strong instructional practices is a significant factor contributing to low levels of student performance in the district. Although these practices are observed, and impact is greatest at the classroom level, good instruction begins with leadership. It is the responsibility of both district and school leadership to ensure that the necessary structures are in place (e.g., embedded support, common planning time, feedback to teachers) and that these structures are being used to effectively support the teaching and learning process. While some structures are in place, use and implementation has yet to focus on improving the quality of instruction or high expectations for student learning.

The fact-finding team noted that in most schools, there are no personnel available to provide embedded support at the classroom level. This is an area that the district indicated needs expansion, which has not been possible due to limited financial resources. At the elementary level, however, the district has provided schools with either (and, in some cases, both) an English Language Arts Intervention Teacher (ELAIT) or a Mathematics Intervention Teacher (MIT). These individuals are responsible for providing instructional support via direct instruction, lesson modeling, co-teaching and consultation with classroom teachers. These positions offer at least some opportunities to provide embedded support to teachers. However, ELAIT/MIT often assumes additional responsibilities outside of the classroom. In some instances, the ELAIT/MIT works with students outside of the regular classroom, which limits opportunities to collaborate and model best instructional practices. In other instances, personnel assigned to the ELAIT/MIT position do not have a background in that content area. As currently implemented, it is not clear that these positions are providing maximum support and benefit to teachers.

The structure of common planning time (CPT) varies across schools. While some schools had sufficient time for teachers to plan and collaborate, in most schools, adequate CPT was not available. That is, teachers did not have dedicated time to collaborate, or the time allocated was insufficient. In most instances in which CPT was available, however, collaborative time lacked a specific agenda to ensure focused dialogue on student work/outcomes, improving classroom practices or to share effective strategies.

The insufficient focus on teaching and learning in the district is also marked by a lack of targeted and meaningful feedback provided to teachers – a practice necessary to improve instruction and, therefore, student learning. Although teachers reported receiving some informal feedback – often orally or on notes left on their desk – a systematic process focused on areas in need of instructional improvement was not evident. The E-walk protocol has been used primarily as a tool for school leaders and the district to monitor program implementation and provides minimal feedback to teachers. As teachers continue to become proficient at using the district's core programs, it is critical that information collected during walk-throughs shift from the current, structural focus to examine instructional strategies and in-class assessment practices. It is imperative that walk-throughs provide immediate, targeted and meaningful feedback to teachers on their practices – both the strengths and areas for improvement.

Before improvement efforts can begin, the district and schools must have a common language that can be used to establish expectations for teachers and students, and to talk about effective instruction and classroom practices. Across a range of interviews and focus groups conducted by the fact-finding team, there was no evidence to indicate the district had established a common language to talk about instruction, assessment and/or student outcomes, nor are there clear expectations for what high-quality teaching and learning looks like at the classroom level.

The establishment of a common understanding and language to talk about teaching and learning is important and may be even more critical in the WPS, for two primary reasons: 1) district administrators share the responsibility of instructional oversight; and, 2) the district utilizes and supports a school-based management system. The district must ensure that all individuals who assume leadership responsibilities, within the district administration and including school-based leaders, possess a uniform understanding and use a common language to talk about teaching, learning and student outcomes.

Principals are offered the autonomy to determine the school's leadership structure: how staff is used and the responsibilities these individuals assume (e.g., school facilitators, assistant principals, department chairs). Across schools visited by the fact-finding team, the range of school administrators and staff who share leadership responsibilities was evident. A few schools have established clear and purposeful instructional leadership (i.e., clearly-defined roles and responsibilities, data-based teaching and learning goals, active decision making). However, instructional leadership at most schools is still at a developing level. That is, personnel in leadership positions and/or leadership teams are not yet specifically focused on practices designed to improve instruction and student performance. For example, designated school leaders are engaged in a variety of administrative tasks that are not related to teaching and learning. There is an absence of common planning time. And, there is limited feedback provided to teachers on their instructional practices. The district must work with schools to ensure that instructional leadership is purposeful and resourceful and that this leadership ensures that necessary structures are in place (including effective use) to improve the quality of teaching and support high expectations for student learning.

The majority of the above-mentioned areas for improvement at the school and district levels pertain to weaknesses in instructional practices and the inadequacy of the structures necessary to support the teaching and learning process. The district has provided many foundations to build upon as the improvement process begins. Next steps require a dedicated focus to improving the quality of instruction, including use of the structures to support the teaching and learning process. The specific school reports contain detailed recommendations for each school and the district. The following provides a cumulative assessment of priority needs to be addressed at the district level.

Working within the current distributed leadership model in the WPS, the district should consider the following to address current gaps in instructional practices:

- Develop a common language and understanding of practices that can be used uniformly across the district and school to talk about instruction, assessment and/or student outcomes;
- Ensure impact of embedded support positions (e.g., ELAIT, MIT), where available;
- Explore opportunities for increasing embedded support to reinforce teacher practices at the classroom level;
- Identify and make use of exemplary teaching practices that exist within individual schools and across the district;
- Create opportunities for purposeful teacher collaboration that is focused on teaching, learning and district/school improvement goals. CPT should be structured and purposeful;
- Move the E-walk protocol to the next level, focusing specifically on instructional practices and in-class formative assessments;
- Provide supports to school leadership to ensure that the E-walk tool is being used uniformly and that reporting is reliable. Without this assurance, it will be difficult for the district to effectively monitor practices that are occurring at the classroom level. Incorporating use of a common language and understanding of high quality instructional practices will be beneficial;
- Ensure that the range of professional development opportunities offered by the district is providing maximum impact at the classroom level. Consider embedded support, follow-through and feedback to teachers to support the development of newly learned practices; and,
- Develop a written plan for improving instructional practices that reflects district and school priorities. The plan should include benchmarks that can be used to measure progress toward stated goals and to provide opportunities to celebrate successes.

BURNCOAT MIDDLE SCHOOL

October 31 – November 2, 2006

1. Standards-based Teaching and Learning – English Language Arts

Areas of Strength

Teachers have established positive classroom climates that create the potential for students to take risks in learning.

- In 94% of English language arts (ELA) and reading lessons observed (n=16), it was noted that students felt safe and were willing to take risks.
- The appearance and physical organization of all (100%) ELA classrooms visited were noted as contributing to a positive learning environment.
- In 70% of ELA lessons observed, teachers incorporated students' prior knowledge as new concepts were introduced.
- Teachers and department heads in all focus groups described students and their learning needs in terms that suggest respectful and caring student-teacher relationships.

Teachers are beginning to incorporate ELA instruction across the content areas.

- Based on the institution of common planning time, cluster teachers described that they were beginning to engage in interdisciplinary sharing and planning that fostered the development of common vocabulary, new ELA instructional strategies and shared graphic organizers and rubrics among teachers.
- Social studies teachers noted using the ELA focus included in each chapter of the social studies textbook.
- The Reading Leadership Team (RLT) advanced a common focus on the “8 Strategies of Effective Readers” across all classrooms in the school.

Priority Areas for Improvement

The rigor of ELA academic tasks and instruction was limited. Students were not asked to think at high levels or to take initiative in their learning.

- In 63% of ELA lessons observed (n=16), students were not engaged in understanding and learning the content at high levels. In these classes, for example, instances of building conceptual understanding, applying multiple problem-solving strategies or working on real-world applications were not noted.
- In 63% of ELA lessons observed, students did not examine their thinking by questioning their understanding of the presented content. Students, for example, did not support and defend their reasoning with evidence while using discipline-based language.
- In 69% of ELA lessons observed, teachers did not use probing questions or student responses to redirect lessons or to emphasize or extend key concepts.
- In 69% of ELA lessons observed, students were not engaged in and responsible for their own learning, nor did they examine results with directive feedback that enabled revision/improvement.

- Anecdotal notes from classroom observations and focus groups indicated that teachers frequently emphasized review strategies with low-level recall questions (“What is an adverb?” “What is an inference?”) rather than deliberate and targeted re-teaching strategies.

Teachers did not consistently demonstrate differentiated approaches for addressing students’ varied learning needs.

- In 69% of ELA lessons observed, learning experiences were not differentiated by content, process and/or product.
- In 44% of ELA lessons observed, classroom strategies did not incorporate multiple forms of representation (e.g., pictures, words, symbols, diagrams, tables).
- Many teachers provided whole-group lessons that included rote or routine activities, such as copying words from the board and “round robin” reading.

Teachers did not consistently and explicitly explain the objectives or purpose of their lessons to students in student-friendly language.

- All teachers specified learning objectives related to the Massachusetts Curriculum Frameworks and Burncoat Middle School (BMS) improvement goals on their lesson plans and/or in their classrooms. However, in 44% of ELA lessons observed, teachers did not explain these objectives to students to ensure understanding.
- Teachers frequently did not summarize their lessons by returning to the objectives and situating the day’s work in relationship to prior or future lessons.

Recommendations

Improve the development and frequency of conceptual rigor in ELA lessons and differentiated instructional practice by:

- Instating an ELA coach to work with school leadership to incorporate targeted professional development, feedback on differentiated approaches and provide job-embedded support (e.g., modeling, co-teaching) to improve instructional rigor;
- Redistributing time for team meetings in the school so that discipline-based common planning time (CPT) occurs more frequently and cross-disciplinary meetings occur less frequently and continue using department heads as leaders of these meetings;
- Focusing instructional supervision and walk-throughs on the cognitive “stretch” of academic tasks, the level of teacher questioning and probing for understanding and the effectiveness of differentiated approaches for meeting varied student needs; and,
- Using supervisory routines to ensure that identified lesson objectives and performance expectations are communicated clearly to students and help students understand how an individual lesson connects with previous and future lessons.

2. Informing Practice with Data – English Language Arts

Areas of Strength

Teachers indicated they are beginning to use Measures of Academic Progress (MAP) and Massachusetts Comprehensive Assessment System (MCAS) assessment data to understand students' needs.

- Teachers in focus groups frequently reported enthusiasm for the MAP data reports and related information provided by the MAP assessment system.
- Teachers indicated they understood the data generated by the MAP system and found it useful for instructional planning.
- The school librarian, who is responsible for MAP administration and data dissemination, reported streamlining processes so MAP assessments could occur with significantly less disruption to library services.

Priority Areas of Improvement

Teachers in focus groups were generally unable to describe any systematic use of formative assessments to monitor student growth over time in reading and writing.

- Teachers infrequently checked for student understanding during lessons. For example, there was limited use of “dip-sticking,” informal surveying of class or using questions to probe student understanding.
- The Worcester Public Schools (WPS) Writing Portfolio was described in teacher focus groups as “something that used to be required, but isn’t any more” and as a “teacher-by-teacher” practice that “most ELA teachers do in some way or other.” Teachers indicated that a district team is forming to re-establish this portfolio process district-wide.
- Teachers described several informal assessment practices that varied across classes (rubrics, portfolios, chapter tests, various kinds of daily work papers and graphic organizers).

Recommendations

Develop and monitor a systematic approach to formative assessments in reading and writing that informs instructional planning throughout 7th and 8th grade by:

- Reinstating the WPS Writing Portfolio with accompanying performance indicators and evaluation rubrics so that students are engaged in assessment of their own growth through a periodic portfolio review process, and ensuring time for 8th grade teachers to review student portfolios at the start of each year;
- Requiring training for 7th and 8th grade ELA teachers that uses student writing samples to build teacher understanding of the rubric criteria and inter-rater reliability among teachers in scoring different genres of writing required in the WPS Writing Portfolio;
- Implementing planned professional development for staff in a set of school-wide formative reading assessment strategies that will inform instructional planning in an ongoing manner; and,

- Ensuring that teachers are using disaggregated data by subgroups to make informed and strategic decisions for differentiating instruction in the classroom.

1. Standards-based Teaching and Learning – Mathematics

Areas of Strength

A positive classroom culture in which students showed respectful behavior toward their teachers and peers has been established.

- In 88% of mathematics lessons observed (n=17), student behavior was positive and respectful. Students, for example, sat quietly during the lesson, were attentive to the teacher, listened to their classmates and appropriately conversed on task.

There was a willingness on the part of the staff to attempt the implementation of Connected Mathematics Program (CMP).

- In 94% of mathematics lessons observed (n=17), CMP was in use – that is, the lesson was based on the CMP, students worked from CMP books and homework assignments reflected CMP Applications, Connections, Extensions (ACE) questions.
- Teachers in focus groups consistently referred to the use of the CMP Teacher Edition.
- In the majority of lessons observed, one or more components of CMP were incorporated into instruction. Most lessons, for example, included a “Launch.” Some students were asked to work in groups and ACE questions were assigned for homework.
- Most lessons utilized various student groupings, consistent with the CMP Teacher Edition.
- In focus groups, teachers expressed a strong desire for a structure that would provide discipline-based planning time and collegial conversations about the mathematics they are teaching.

Priority Areas for Improvement

Evidence of instructional academic rigor, as expected by the district and CMP, was limited.

- High expectations for all students were not always evident. Classroom observations indicated high expectations (in which student efforts and ideas are valued) in less than half of CMP lessons observed. When asked in a focus group how teaching CMP differs between honors classes and regular classes, one teacher said that the honors classes were given more time in the Exploration phase, while the regular classes received a more detailed Launch phase.
- Instruction did not focus on fostering students’ conceptual understanding in 59% of observable opportunities. For example, teachers did not probe for understanding or link students’ existing knowledge to the concepts in the lesson. Students were not asked to apply multiple problem-solving strategies and/or justify or reflect upon their own understanding.

- There was a repeated pattern in which teachers led students through the Exploration phase of a CMP lesson, rather than letting students build learning opportunities within the required task. Students, for example, were not asked to test hypotheses during the Exploration phase. Instead, teachers gave a series of hints that lead the student to the correct answer before the Exploration phase even began.

Time management of the CMP instructional model (Launch-Explore-Summarize) did not allow consistent opportunity for synthesis and summary at the close of the lesson –an essential step in consolidating learning and preparing students for success with their homework.

- A summary was seen in 27% of the CMP lessons observed.
- It was not uncommon for the “do now” and homework review aspects of the lesson to consume approximately one third of the class time.
- In many rooms, homework was posted on the board before class began, rather than being assigned toward the end of class and based on what had actually occurred during the lesson that prepared students to do their homework.
- Differentiated instruction was evident in only one CMP lesson observed. Lessons observed did not include differentiated questioning, differentiated homework assignments using ACE questions, use of different numbers in an investigation to scaffold or to challenge individual students according to their needs and/or permit varied response formats based on student learning styles.
- Content of mathematics enrichment classes did not appear to be aligned with CMP content, CMP pacing or students’ individual needs.

Recommendations

Institute discipline-based common planning time in order to develop:

- Lessons that focus on “big ideas” and concepts from CMP, rather than on mathematical procedures;
- Instructional strategies that foster effective cooperative group work in which students actively work with their peers and engage in mathematical discourse to construct learning; and,
- Differentiated instruction, using the opportunities that exist within CMP lessons.

Provide opportunities for teachers and administrators to see exemplars of faithful implementation of the CMP instructional model by:

- Continuing to observe those teachers who model effective CMP practice;
- Visiting classrooms out-of-district that are successfully implementing CMP; and,
- Utilizing video cases for analysis of effective CMP lessons.

Instate a full-time instructional coach to provide:

- One-to-one coaching to support both conceptual teaching and implementation of the CMP Launch-Explore-Summarize instructional model;

- Group coaching and facilitation during discipline-based CPT; and,
- Focus instructional supervision and walk-throughs on less global, more targeted areas of effective mathematics instruction as described in both:
 - The CMP curriculum; and,
 - The Department of Education's Lesson Performance Standards Observation Tool, which was used for the fact-finding observations.

2. Informing Practice with Data – Mathematics

Areas of Strength

Teachers are beginning to use a variety of data sources to inform their practice.

- Teachers are beginning to use MAP assessments to better target student needs.
- The 8th grade teachers will now have 7th grade MCAS mathematics results to inform their work.
- Teachers are using CMP-embedded assessments to assess student understanding (written reflections, end of module projects, ACE questions).

Priority Areas for Improvement

Currently, there are no priority areas for improvement in the use of data to inform practice at Burncoat Middle School.

3. Time for Teachers and Students

Areas of Strength

There is sufficient time for general instruction in ELA and mathematics.

- ELA: 57 minutes is the average block of instruction.
- Mathematics: 57 minutes is the average block of instruction.

The school has a variety of interventions available to students. Each program has a specific set of criteria for student selection.

- One hundred students participate in a 10-week mathematics enrichment program in place of a special subject. If they do well, they may exit the program.
- Sixth grade screening assessments identified 22 students for an additional block of specific reading intervention (Wilson reading).

- Advancement Via Individual Determination (AVID), which includes study and organizational skills for students identified as working below expectation but capable of completing a college preparatory path, is an alternative to ELA.
- *Assistments* – an individualized, computer math tutoring, monitoring and assessment program designed to address students’ specific learning gaps – is offered.

Teachers have sufficient time to regularly share ideas, materials and strategies. Common planning time is structured.

- Dedicated common planning time, in cross-disciplinary cluster teams, occurs three times a week during duty times.
- Weekly CPT is structured to include: 1) parent meetings to discuss issues with the cluster team and/or the guidance counselor; 2) discussion of MAP data with the librarian; and, 3) Turning Points meetings with the facilitator.
- Meetings are led by cluster liaisons who are chosen by the principal, meet weekly with the principal to develop agendas and share information and rotate annually in the position.
- Through the collection of minutes, CPT is monitored by the principal.

Areas for Improvement

The effectiveness of intervention programs is just beginning to be assessed. As a result, programs (and their components) that have had the greatest impact have not yet been documented.

- The district, school leadership and teachers report positive outcomes for students participating in the AVID program and recognize that some “characteristics may be worth replicating.” A district administrator is currently assessing AVID.
- Interviews with school leaders focused on implementation of intervention programs (e.g., ELA enrichment, *Assistments*). Information on program effects and outcomes has yet to be reported.

Recommendation

Further develop assessments of the effectiveness of intervention programs to determine which programs to continue or develop and to identify highly effective program components that might be replicated in other curriculum areas.

4. Leadership for Instructional Improvement – DISTRICT

Areas of Strength

The district provides sufficient classroom teaching staff and monitors and supports the school's implementation of school improvement plans.

- School leaders did not indicate they are short-staffed for teaching positions.
- The quadrant manager visits BMS approximately once a week. Other district leaders visit the school regularly. The quadrant manager conducts walk-throughs with the principal.
- The quadrant manager develops goals that are aligned with those of the superintendent and works with the principal on the development of the school's goals to ensure they are aligned.
- Progress is monitored through administrative meetings.
- The district uses the administrators' evaluation tool – the University of Oregon's *A Research-Based Assessment, Evaluation, & Improvement Tool for School Administrators*.
- Monitoring of classroom performance occurs through E-walks based on the Massachusetts Department of Education (DOE) and MSS Network *Standards Based Mathematics Lesson Performance Standards*.

The district provides a rich offering of professional development (PD) relevant to BMS initiatives and foundational teaching skills.

- Mathematics teachers and administrators have been provided training to implement CMP to include components designed to support changes in instructional practice – for example, understanding mathematical content, supporting pedagogy, differentiated instructional strategies, consultant modeling of effective teaching strategies and in-class coaching following seminars.
- PD has also been provided on Turning Points, use of the MAP, Teaching English Language Learners (TELL), Skillful Teacher and Massachusetts Institute of New Teachers (MINT).

Priority Areas for Improvement

There is not a clear and cohesive set of curriculum documents to guide the ELA program, including how performance expectations will be aligned, communicated and monitored across the school (i.e., what students are expected to know and be able to do).

- Many staff members referenced the Massachusetts ELA Curriculum Framework as the ELA curriculum. As stated in this document, however, it is intended to be used as a guide in the development of a local ELA curriculum.
- The Worcester K-12 ELA "Scope and Sequence" curriculum includes one page of curriculum objectives for 7th grade and one for 8th grade and a list of recommended books for each.
- The team saw no document that guides teachers in how to pace, sequence and organize the content of the Massachusetts Curriculum Frameworks or the district curriculum objectives for effective instruction at the middle school level.

The district's professional development program provides teachers and administrators opportunities to learn about best practices but, particularly in ELA, does not consistently provide job-embedded coaching to ensure implementation of these best practices.

- With the exception of America's Choice, coaching this year is available primarily from supervising administrators.
- Department heads suggested they provided some elements of coaching – model lessons, for example – but these supports did not appear systematized or consistently applied.

District leadership has been focused on putting in place CMP and intervention programs. There has not been a clear focus on the process of teaching and learning.

- In the experience of the visiting team, leaders did not evidence attention to the process of teaching and learning by using a common language about instructional strategies.
- Walk-through protocols and lesson plans focus on the structural implementation of the programs. There are no descriptors to assess the quality of instructional strategies.

Recommendations

Provide a well-developed curriculum guide for 7th and 8th grade ELA that articulates a conceptual and organizational framework for approaching the discrete learning objectives at each grade level. Suggested for inclusion in this guide:

- An effective scope and sequence for instruction, student exemplars, and specification of which curriculum objectives will be introduced, practiced and mastered in each grade;
- Examples of relevant instructional strategies and key instructional vocabulary;
- Targets/benchmarks to identify student performance levels in ELA; and,
- Student work exemplars and evaluation rubrics to build a common understanding among teachers about what constitutes high level work in ELA.

Revisit and focus on a research-based model of PD that includes learning the theory, seeing models of what the new practice looks like and guided practice/coaching, to hasten change in classroom practice.

- One conceptual framework would include the following components: 1) hearing the theory, a description of what the practice is and why it's effective; 2) modeling or seeing a demonstration; 3) guided practice with feedback (job-embedded coaching); 4) independent practice; and, 5) observation with feedback.

Concurrent with implementation of the curriculum, focus on delivery of the curriculum by developing a common language about instructional strategies, so that BMS leaders and teachers have the tools to engage each other about their practice.

- Ensure that protocols for walk-throughs include observation of varied instructional practices.
- Ensure that lesson plans include a component for teachers to note the instructional strategies they anticipate using for each part of the lesson – for example, Launch-Explore-Summarize in mathematics or the equivalent for ELA.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

The principal has created a distributed leadership model for instruction in the school that includes:

- Assistant principals, a facilitator, department chairs, cluster liaisons, teacher lab ILT and an RLT.

Best practices are beginning to be shared across the school.

- Several English language learners (ELL) and special education teachers are co-teaching in regular education classrooms and are sharing instructional strategies with their regular education colleagues.
- Teachers report on sharing best practices in their weekly CPT meetings.
- Department heads report best practices from CPT meetings being modeled and shared in monthly department meetings.

Priority Areas for Improvement

Leadership is focused on implementing the curriculum and intervention programs. However, there is not a clear focus on the process of teaching and learning.

- Components in lesson plans vary across disciplines. The visiting team did not see evidence that teachers are consistently asked to include how they will teach the content – that is, what instructional strategies they plan to use.
- There was limited evidence of benchmarks for implementation of intervention programs.
- School leaders who conduct walk-throughs use various protocols or no protocol for their classroom observations.
- School leaders did not use a common language to talk about instructional strategies.
- The leadership team expressed interest in having what they're looking for on walk-throughs and lesson plans be the same.

Recommendations

Leadership of the school needs to develop clearer focus, priorities and coherence among the various initiatives, by:

- Developing expertise at the leadership/administrative level in the core content areas;
- Providing structures to identify and share best practices in a coherent, focused manner;
- Ensuring routines to monitor and provide feedback to teachers about how they use the identified best practices;
- Directing personnel toward developing and supporting these specific structures and routines; and,
- Reassessing the role of the facilitator to focus time on coaching and other factors that directly effect teaching and learning in ELA and mathematics.

BURNCOAT ELEMENTARY PREPARATORY SCHOOL

November 3, 6 & 8, 2006

1. Standards-based Teaching and Learning – English Language Arts

Areas of Strength

Teachers are delivering the core English language arts (ELA) program with fidelity, express enthusiasm for the program and state greater confidence in being able to implement the program more fluently and efficiently this year (the 2nd year of implementation).

- In 73% of ELA lessons observed (n=15), teachers used time efficiently and purposefully.
- Teachers' lesson plans cite specific lessons from the core program and related Massachusetts curriculum standards.
- Teachers and students were observed using program materials (e.g., leveled readers and anthologies, transparencies, teachers' manuals, workbooks and worksheets).
- Teachers in focus groups reported liking the various instructional supports provided with program (e.g., English language learners [ELL] and special education materials; writing lessons with each 4-to-5-week theme, writing rubrics, identified target skills).

ELL students receive targeted reading support.

- ELL students are provided with take-home reading through a borrowing system with the ELL teacher.
- In focus groups, teachers reported using special ELL resources provided with the school's ELA program (e.g., contact discs of lesson stories being read aloud; vocabulary picture cards, additional ELL library, teacher workbook to support ELL).
- The principal reported that teachers have participated in 10 hours of Teaching English Language Learners (TELL) training. Teachers will be involved in 70 additional hours of ELL training this year.

The classrooms and school appear to provide a safe, healthy learning environment, creating the potential for student and teacher risk-taking in learning.

- Student writing, mathematics and art work are evident in attractive hallway displays that are placed at student height.
- Teacher-to-student, student-to-student and teacher-to-teacher interactions were noted in classroom observations and focus groups as positive, relaxed, supportive and patient.
- Teacher focus groups indicate that teachers use each other – as well as administrators and specialists – as frequent, informal professional resources to support student learning.
- In 77% of ELA classroom observations, the appearance and physical environment of classrooms was cited as contributing to a positive learning environment.
- In 67% of ELA lessons observed, students were described as generally engaged in lessons and behaving appropriately.

Priority Areas for Improvement

Teachers did not consistently convey lesson objectives in student-friendly language to help students understand the purpose of lessons and how they align with previous or future lessons.

- While lesson objectives were often included in lesson plans and/or displayed visually, in 66% of ELA lessons observed (n=15), teachers did not clearly explain lesson objectives to students or check for student understanding about the goals of the lesson.
- In 93% of classes, teachers did not provide models of high-quality work (e.g., rubrics, student exemplars, anchor charts) to ensure students' understanding of the lesson objectives. This weakens students' ability to attain the lesson objective and to assume accountability for their own learning.

Teachers did not consistently hold expectations for high-level inquiry during ELA lessons. It appears teachers are attending so closely to delivering the ELA program with fidelity that they are overlooking opportunities to observe students, extend learning and take advantage of teachable moments.

- In 80% of observed ELA lessons (n=15), students were not observed examining their thinking, questioning their understanding of the content presented or supporting or defending their reasoning while using language appropriate to the discipline.
- In 60% of ELA lessons, teachers were not observed using probing questions. For example, teachers prompted and accepted one-word and simple phrase answers. Student responses were not used to make decisions about how to direct the lesson going forward.
- In 60% of observed ELA lessons, teachers were not observed identifying or addressing student misconceptions. For example, teachers did not follow up on students' short-answer responses to determine the level of student understanding or the source of their ideas.

Although teachers reported that students are grouped for instruction according to assessment data, classroom observations indicated frequent large-group, teacher-directed instruction.

- In 67% of observed ELA lessons (n=15), teachers did not provide varied, differentiated instruction appropriate for the range of learners in the classroom. Students, for example, were not grouped to work with varied pacing, content, or materials according to their identified learning needs.
- In 53% of observed ELA lessons, teachers did not incorporate multiple forms of representation within instruction. For example, teachers did not convey key concepts by using a combination of pictures, words, symbols and/or diagrams.
- Classroom observers indicated that classroom dialogue was frequently teacher-directed; students were often observed responding to the teachers, not to each other.

The school and classrooms have insufficient supplementary ELA resources to propel student engagement beyond the core program.

- The Worcester Public Schools (WPS) has reportedly eliminated funding for all elementary school librarians. Given the water damage in 2005 - 2006 and the report of many outdated books, the Burncoat Preparatory library was dismantled. As a result, students rely heavily on classroom libraries for reading incentives and resources.
- Observations indicated that classrooms had baskets of leveled books that are part of the core program. However, classroom libraries were either not observed or were noted as providing an inadequate selection of books for enriching classroom studies and engaging children in ongoing reading.
- Observations noted that classrooms frequently did not provide comfortable reading corners with inviting displays of literature, organized by level, genre or theme.
- ELA manipulatives and tools were not evident in all classrooms or made easily accessible for students (e.g., sound boxes and manipulatives, letter and word tiles, listening centers, picture cards, center materials).

Recommendations

Engage an ELA coach to help teachers develop student initiative for learning and higher levels of cognitive engagement by:

- Developing interactive instructional strategies, such as peer coaching, literature circles and center activities;
- Developing learning centers that are differentiated to provide skill reinforcement in areas identified through formative assessments;
- Improving focus, pacing and planning of Houghton Mifflin (HM) lessons to improve student engagement; and,
- Co-planning and modeling well-paced lessons based on the HM goals and objectives.

Purchase – and make accessible through inviting classroom spaces – a range of ELA materials, including:

- Trade books sorted by various genres that complement thematic grade-level studies and correlate with the Massachusetts ELA Frameworks Recommended Authors list; and,
- An assortment of ELA materials to support different modalities of learning (i.e., seeing, hearing, touching) through center-based activities. These might include, for example, listening centers, letter tiles and picture/word cards.

2. Informing Practice with Data – English Language Arts

Areas of Strength

Teachers in focus groups describe using several types of formative and summative assessments, such as:

- Informal review of student journal writing, graphic organizers and other student work;
- Diagnostic Reading Assessment (DRA) and Dynamic Indicators of Basic Early Literacy Skills (DIBELS) data at the primary grades; and,
- Measures of Academic Progress (MAP) and Massachusetts Comprehensive Assessment System (MCAS) data from grades 2 and 3 to 6.

Priority Areas of Improvement

Classroom observations noted little evidence that teachers were using data or formative assessments to inform the direction of classroom instruction or the formation of instructional groupings.

- In 57% of regular education ELA lessons observed (n=13), teachers –for the majority of time – led large group instruction from in front of students’ seats.
- In 80% of observed ELA lessons, multiple types of diagnostic and ongoing formative assessments were not evident. Teachers were not observed, for example, assessing student understanding through student or group presentations or projects, open response prompts or informal surveys.
- Classroom observations indicated that teachers frequently checked for student understanding according to prompts in the Teacher’s Edition, rather than by probing for understanding according to their own observations and their knowledge of students.

Recommendations

Monitor and support teachers’ work with needs-based student groups based on assessment data by:

- Providing structured common planning time (CPT) at least one hour per week, with focused attention to setting student learning goals, monitoring student progress and planning targeted lessons;
- Introducing protocols and rubrics that include performance indicators for looking at student work during CPT sessions;
- Guiding teachers in how to use MAP data and other formative assessments to plan differentiated instructional approaches for small groups of learners; and,
- Establishing assessment binders or online databases, organized by student, that include all formative and summative assessment data and/or graphical displays.

1. Standards-based Teaching and Learning – Mathematics

Areas of Strength

Teachers have mastered the rituals and routines of the Everyday Mathematics (EDM) program.

- In 100% of mathematics lessons observed (n=15), EDM was in use.
- Lesson plans reviewed by the fact-finding team incorporated and focused on implementation of EDM.
- Review of Teacher Editions displayed evidence of utilization for planning (e.g., handwritten notes, post-it notes with references, dog-eared pages).
- In focus groups, teachers referred to sustained professional development for EDM. This included a full day with the Comprehensive School Reform (CSR) mathematics support specialist, summer training institutes and initial EDM training.
- Necessary supporting materials (e.g., stacking cubes, base-10 blocks, number lines, rulers, informal manipulatives such as popsicle sticks) were available, accessible and being used appropriately.

In 27% of mathematics lessons observed (n=15), teachers displayed the depth of content knowledge and pedagogical content knowledge required to teach EDM effectively. In these classes, the teachers went beyond delivering the curriculum and were focusing on student learning.

- Students were asked to explain their thinking and could articulate abstract mathematical concepts. In one classroom, for example, when an error occurred in a decimal calculation, the teacher used this as an opportunity for conceptual (rather than procedural) learning by having students explain their understanding of the problem, model the problem in various ways and then relate the specifics of the problem to the more generalized concept of place value.
- Students used multiple representations, such as drawings, equations and data tables.
- Students were self-monitoring and self-correcting, taking time to reflect on their work, seeking feedback from classmates and/or their teacher and then using the resulting feedback to refine their work.
- Students were making mathematical connections between and among mathematical strands (number and operations, geometry and measurement, algebraic thinking and data analysis) relating, for example, their work with patterns to numerical expressions.

Priority Areas for Improvement

Overall, there was a lack of rigorous engagement with mathematical ideas on the part of both teachers and students. In the majority of lessons, the “big ideas” of the mathematics were not developed sufficiently so that students could make mathematical connections.

In most classes, teachers did not display the depth of content and/or pedagogical content knowledge required to teach EDM effectively.

- In 38% of mathematics lessons observed (n=15), whole-group teaching predominated; that is, instruction focused on the groups as a whole. Although students may have been sitting in groups, they were not engaged in cooperative group work or mathematical conversations with each other. In one instance, for example, the entire 40-minute instructional period consisted of the teacher reading from or referencing the Teacher Edition.
- In 14% of mathematics lessons observed, many questions required factual recall only or one-to-two-word answers – for example, “How do we rename fractions; what operations do we use?” “What is the difference between 7 and 4?”
- In 38% of mathematics lessons observed, there was a lack of summary and synthesis at the end of the lesson related to the learning standard, leaving the students without clarification as to the “big idea” or main mathematical concept of the lesson.

Teachers are using EDM routinely, attending closely to delivering the program with fidelity. However, there is a lack of focus on refining instruction to increase student learning opportunities and understanding.

- When asked in focus groups what they would like to do as a next step to further engage and improve use of EDM after having become familiar with the program’s structure, none of the teachers mentioned going more deeply into aspects of teaching mathematics. Nor did they mention using new instructional practices or linking instructional practice to student learning. Instead, they said that they wanted to supplement the program, have the students do more practice activities and integrate mathematics into science and social studies.
- Probing for student understanding occurred in only 13% of mathematics lessons observed (n=15).
- Teachers responded to students’ misconceptions in only 27% of mathematics lessons observed. Rather than exploring the reasoning behind a student’s incorrect answer, for example, teachers tended to seek out another student who could provide what the teacher believed was the one correct answer.
- Differentiation of instruction occurred in only 27% of mathematics lessons observed. While EDM lessons follow a specific format, opportunities for differentiation are described in the “Options for Individualizing” section of each lesson. A differentiated EDM lesson should include differentiated questioning, different numbers to scaffold or challenge individual students according to their needs, playing different levels of EDM games and encouraging students, based on their personal learning styles, to utilize response formats.

Student learning lacks both models for quality as well as structures to help students think deeply about their mathematical understanding.

- In 1 out of 14 lessons, exemplars of quality work that showed student work with correct answers, varied ways to represent correct answers, clear and organized formats for representation and alignment with rubrics were observed.

- In 3 out of 15 lessons, students were observed examining their own thinking, defending their reasoning and reflecting on their learning.
- Students were observed using feedback either from teachers or peers in only 4 of 15 lessons. In at least one instance, teacher feedback was actually counterproductive to student understanding. For example, when the teacher asked for “friendly numbers” that would help find the solution to 42 divided by 3, a student replied, “Six,” a factor of 42 and a multiple of 3. Even when the student indicated that he knew that $6 \times 7 = 42$ and $3 \times 2 = 6$, the teacher responded that 6 is not a friendly number and pressed instead for the particular answer she was looking for: 30.

The Mathematics Intervention Teacher (MIT) does not have a background in either mathematics or mathematics education but, rather, is trained in Reading Recovery.

Recommendations

Advance instruction by implementing the design features of EDM that make it student-centered and include practices to elicit higher-order thinking; namely,

- Have teacher questions move beyond those requiring factual recall and short answers;
- Have students actively engaged with each other in cooperative group work; and,
- Have teachers use student feedback *during* the lesson to guide the subsequent direction of that lesson.

Institute a coaching program designed to move teaching of EDM beyond the routine stage by ensuring that the coach possesses mathematics-specific content knowledge and teaching skills.

Utilize tools (e.g., Department of Education [DOE] Lesson Characteristics, the National Council of Teachers of Mathematics [NCTM] process standards, visits to EDM schools, studies of video cases) to create a shared vision of lessons that are student-centered, that incorporate higher-order thinking and that foster mathematical reflection, communication and deeper thinking about mathematical connections.

2. Informing Practice with Data – Mathematics

Areas of Strength

The school is using some data to think about teaching and learning.

- Teachers in focus groups describe using MAP and MCAS data.

Priority Areas for Improvement

In most lessons, teachers were not using dynamic, informal, formative assessments that could act as feedback *during* the lesson to address students' understanding and misconceptions.

- In 87% of lessons observed (n = 15), teachers did not ask probing questions to assess student understanding.
- In 73% of lessons observed, teachers did not use emerging information about students' misconceptions to provide feedback.
- In 73% of lessons observed, teachers did not differentiate their instruction.

Recommendations

Increase teachers' assessment of student understanding through the use of probing questions during lessons.

Use formative assessments and observations throughout the lesson to drive ongoing, instructional decisions.

3. Time for Teachers and Students

Areas of Strength

The school schedules sufficient time for ELA and mathematics instruction.

- There is a 90-minute daily block for mathematics lessons.
- There is a 90-minute daily block for core ELA program lessons.

The school offers additional academic interventions for students, specifically in ELA/reading.

- There is an additional 30-to-40-minute period (two-to-three times per week in lower grades, and four-to-five times per week in upper grades) for Making Meaning – the reading comprehension program currently being piloted.
- English as a second language (ESL), special education teachers and literacy tutors provide up to 120 minutes additional ELA academic support for struggling students identified in Tier III of the HM program.
- Through its Title I program, an after-school academic support program is offered three days a week.

Areas for Improvement

The school provides insufficient time and structure for teachers to develop focused, well-paced, high-level lessons in collaboration with grade level colleagues.

- The school schedules CPT twice a month after school as part of the regular faculty meeting. Teachers report that, on average, CPT ranges from 15 to 30 minutes.
- Agendas for after-school CPT are generally teacher-determined. Specific purposes, outcomes or benchmarks are not clearly articulated.
- Teachers reported no other formal time for collaborative lesson development or peer observations.

Recommendations

Rearrange scheduling and/or provide coverage to free up a block of time that provides opportunity for K-2, 3-4 and 5-6 grade level CPT, making provisions for ELL and special education staff to participate.

4. Leadership for Instructional Improvement – DISTRICT

Areas of Strength

District leaders maintain regular contact with the principal.

- The quadrant manager visits the school three to four times per month.
- District personnel participate in classroom walk-throughs.
- The principal participates in all district meetings.

District personnel are beginning to examine data and identify their concern that teachers' lack of content knowledge in mathematics is a contributing reason for low student performance.

- Successful implementation of the MAP program has begun to provide the district with information on student performance in mathematics.
- A beginning body of information from E-walks has provided the district some information on classroom practices in mathematics.

Priority Areas for Improvement

There has been a widespread focus on the fidelity of implementation of EDM, HM and assessment programs. However, district leaders do not indicate a concurrent focus on improving instructional strategies. The “structural” fidelity of implementation is not enough to guarantee student success.

- District leaders have begun to examine the discrepancy between classroom observation data and student achievement, but have not yet suggested the need to review E-walk protocols (beyond the structural implementation of the programs) to determine how they can be used to identify gaps in instructional practice.
- District leaders do not use a common language to talk about instructional practice.
- Teachers are using commercially-prepared EDM and HM lesson plan templates without including information about intended instructional strategies.
 - The EDM template includes a section for “Methodologies” but teachers have added “Lesson Activities” to the title and provided information about what they plan to do, rather than the instructional skills they will use in teaching the lesson.
 - The HM lesson plan template does not include a designated space to report planned instructional strategies or student outcomes.

Recommendations

Provide focus for Burncoat Elementary Preparatory School that supports conscious and deliberate development of instructional strategies.

- Take steps at the district level, in collaboration with school leadership, to build a shared understanding of teaching terms. For example, “differentiated instruction,” “instructional practice,” “use of data to inform practice” and other terms that district personnel may identify as confusing.
 - In addition to a common language, develop a shared vision of what these look like at the classroom level.
- Provide benchmarks for quadrant goals and coach principals to include benchmarks in their goals in order to make them more specific about instructional practice.
 - For example, when new programs are being implemented, identify benchmarks for stages of development that you want to attain. Specifically, how does implementation in year 2 of HM differ from implementation in year 1; or how does implementation in year 5 for EDM differ from implementation in years 4, 3, 2 and 1?
- Support development of the EDM and HM lesson plans so that expectations are clear for teachers’ instructional strategies and within-lesson assessment practices (e.g., checking for understanding, observing students’ body language).

- Re-examine E-walk protocols to ensure they are aligned with expectations for instructional practice, as well as program implementation.
 - Add criteria about instructional practice.
 - Develop, as necessary, a shared understanding of the meaning of each criterion.
 - Provide exemplary models for criteria to clarify what performance is expected.
- Provide Burncoat Elementary Preparatory School with coaching that is designed to help teachers internalize new instructional strategies for regular application in classroom practice.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

Teachers attribute the instructional leadership that exists at the school to the principal.

- In focus groups, teachers cited the principal's experience, training and collaborative spirit as positive variables that contribute to instructional leadership.
- The principal has attended professional development to expand her knowledge and skills in areas specific to the needs of Burncoat Elementary Preparatory School, through:
 - Participation in EDM training, Skillful Administrator and Massachusetts Mathematics Institute (MMI) courses.
 - Also, the principal has become a trainer of colleagues in mathematics instruction.

Teachers are supportive and collaborative.

- Teachers reported frequent informal communication within the school and with grade level peers, particularly before and after school and during lunch, citing the school's small size and distribution of classes (primary grades on the lower floor, upper grades on the second floor) as helpful in this regard.
- In focus groups, teachers indicated that they collaborate on problem solving around individual student performance and sharing best practices.
- Teachers reported support for the district's curricula and instructional programs. This was further evidenced by teachers' commitment to implementation of HM and EDM.

Fourth grade MCAS scores show significant gains in mathematics over the past 4 years and in ELA over the past 2 years.

Priority Areas for Improvement

Little evidence of a shared language about instructional practice was found in documents or focus group responses.

- Lesson plans that were reviewed did not include plans for instructional strategies.
- Teacher evaluations that were reviewed did not praise use of, or critique absence of, specific instructional strategies.
- The principal's Action Steps did not specifically address a need to develop teachers' repertoires of instructional strategies.

Use of data to inform instruction is understood primarily as informing choices of activity and/or lesson assignments.

- Teacher focus groups indicated that data are used primarily for grouping students, to organize students for re-teaching the skills identified as lacking and to inform assignments selection and lesson activities.
- Reports about adjusting instructional strategies to accommodate the needs of different learners were not evident in focus group comments.
- Classroom observations indicated little small-group instruction or differentiated instruction.

Feedback to teachers following informal walk-throughs is not systematically delivered.

- There was no plan for a regular and consistent system to provide targeted feedback to teachers.
- The principal reported providing teachers with informal feedback, either orally or in written notes.

Recommendations

The principal has knowledge and skill about instructional practice and should incorporate feedback on instructional practice into already-established oversight structures.

- Oversight structures include teacher evaluations, informal feedback to teachers following classroom observations, lesson plans and E-walk reporting.
- Develop and use a common language for instructional strategies (also see the district-level recommendation).

Analyze what kind(s) of coaching may be needed to take fidelity of implementation of the mathematics and ELA curricula to the next level; plan for and implement this coaching.

- For example, analyze whether the coach will work with groups of teachers as well as one-on-one, demonstrate/model lessons, co-teach, coach about content knowledge, coach about instructional practice generally and/or related to specific content, help teachers reflect on their practice, etc.

Support staff to increase their understanding of how to use data to inform instruction beyond grouping students and selecting activities and assignments that are appropriate.

- This includes adjusting instructional strategies to help all learners access the curriculum; and,
- Identifying instructional strategies that can be used to meet the needs of students' varied learning styles, skills and knowledge.

FOREST GROVE MIDDLE SCHOOL

November 13 - 15, 2006

1. Standards-based Teaching and Learning – English Language Arts*Areas of Strength*

Teachers have created safe, caring and risk-free environments in which student learning can occur.

- In 88% of English language arts (ELA) classes observed (n=17), the appearance and physical organization of classrooms were noted as positive learning environments.
- Classroom procedures were in place for smooth transitions and respectful student behavior in 77% of classrooms observed, in which time was used efficiently and purposefully.
- Observers noted strong teacher-student rapport and respectful teacher-student and student-student interactions in most classrooms.

Written lessons were well-organized, with clear learning expectations.

- In 100% of ELA classes observed, learning objectives were posted and/or explained to students. Agendas were posted with homework assignments.
- In 88% of the ELA lessons observed, students were on-task with appropriate behavior for the activity.

There is greater focus and emphasis on improving student reading and increasing the quality of instructional practices in this subject area.

- The addition of more reading teachers and a reading department head has increased opportunities for modeling and embedded professional development.
- Reading teachers receive focused instructional support twice a month to improve and increase use of reading strategies.
- In focus groups, staff reported that extra training workshops conducted by the reading department head has attracted up to 20 teachers to training sessions.
- Eighth grade students receive additional 10 weeks of reading instruction a year.

Teachers expressed enthusiasm and consistent involvement in practicing the Literacy Strategy of the Month.

- In focus groups with teachers and department heads, all staff expressed enthusiasm for monthly literacy strategies, noting the effectiveness of increased, common instructional practice and language among students and teachers.
- Observers noted seeing instances of “using quotations” – the Literacy Strategy of the Month, for example – in lessons they observed.
- In focus groups, teachers stated that they are paying more attention to “how” students learn as they practice focused literacy strategies school-wide.

Priority Areas for Improvement

Teachers did not use differentiated approaches to address the varied needs and learning styles of their students.

- In 88% of the ELA lessons observed (n=17), teachers did not use differentiated instruction or varied strategies.
- In 59% of ELA lessons observed, instruction was whole group and teacher-directed.
- Students were in small groups in some classes observed. However, students were most often working independently on the same assignments, with minimum student-student interaction and discussion.
- In 47% of the ELA lessons observed, there were no models or exemplars used to demonstrate high expectations for student achievement.
- In 65% of ELA lessons observed, there was little evidence of using multiple forms of representation (e.g., visual aids, graphic organizers) to deepen and extend learning.
- In 64% of ELA lessons observed, teachers were not using instructional tools (e.g., computers, overhead projectors) to address varied learning styles and/or to extend student learning.

There was little evidence of instructional rigor and high-level questioning to increase student involvement and engage students in thinking about and discussing content.

- In 82% of ELA lessons observed, students were not involved in a higher-level examination of content to deepen their conceptual understanding. Students, for example, did not respond to questions demanding inference, evaluation, application and/or discussion.
- In 41% of ELA lessons observed, teachers did not use probing questions to guide the direction of the lesson and provide opportunities for students to deepen understanding. When probing questions were asked, it was at minimal levels; that is, the discussion stopped after one or two students responded.
- In 43% of ELA lessons observed, teachers did not anticipate, address and/or identify student misconceptions. As a result, there were missed teaching opportunities.

Recommendations

Develop ways to ensure differentiated instruction, varied approaches and increased rigor of classroom practices by:

- Developing sample lessons and/or use models already in practice in some classrooms in which instruction is differentiated by content (materials used), process (strategies students learn/practice to access the content) and product (student work/results);
- Providing increased opportunities for feedback on and discussion about lessons among staff, using a similar, benchmarked approach as the Literacy Strategy of the Month model;
- Providing frequent opportunities for students to dialogue and discuss. Adopt a school-wide model for training students to work in cooperative/collaborative learning groups that would include common language for roles and procedures. Build upon literature circle roles already in use; and,

- Increasing the use of multi-modal teaching approaches (e.g., using overhead projectors, graphic organizers, graphs, charts or computers) and strategies for teaching English language learners (ELL) to promote deeper student engagement and learning.

Promote increased and more consistent use of higher-order questioning within classrooms to deepen student thinking and learning by:

- Creating a school-wide focus to promote use of higher-order questions (e.g., labeling, categorizing, applying, evaluating). Use lists of verb starters to begin developing higher-order questions; and,
- Providing frequent opportunities for student-to-student discussion and interactions through grouping and pairing.

2. Informing Practice with Data – English Language Arts

Areas of Strength

There is enthusiasm for using Measures of Academic Progress (MAP) data to group and regroup students for instruction and to track student growth.

- In focus groups, teachers reported grouping and regrouping students with more confidence and frequency as a result of the data provided by the MAP.
- Teachers reported increased attention to particular student strengths and weaknesses as a result of having more specific MAP data.
- Teachers stated that book reports and reviews assigned to students are based on student reading lexile scores from the MAP.

Reading teachers are using Gates-McGinitie and Informal Reading Inventories to better group students for reading.

- Teachers report that data from these assessments has resulted in more frequent use of running records to regroup students.
- Increased use of flexible grouping is occurring in both reading and ELA classes.

Priority Areas of Improvement

There was little evidence of multiple types of diagnostic and ongoing formative assessments to monitor student learning.

- In 71% of ELA lessons observed (n=17), ongoing, formative assessments (e.g., written reflections, tests, ongoing checks for understanding) were not noted.
- In 71% of ELA lessons observed, students were not engaged in examining their own learning by using teacher or student feedback to revise and improve their own work.

- In 71% of ELA lessons observed, teachers did not use varied approaches to check for student understanding. There was limited use, for example, of questions to probe for understanding, think-pair share or “dip-sticking.”

Recommendations

Select specific formative assessments and promote school-wide use of these strategies. Train teachers to use selected strategies and provide time for practice, reflection and review, as well as timely and meaningful feedback to ensure uniform and high quality use.

Move students to higher, deeper levels of engagement and self reflection regarding their own work by:

- Increasing cooperative and collaborative student group work and peer tutoring; and,
- Increasing the use of student learning logs, rubrics, exemplars of top student work and specific teacher feedback to promote student self reflection and engagement in review of work until these become common practices in all classrooms.

1. Standards-based Teaching and Learning – Mathematics

Areas of Strength

The positive school climate and well-organized classroom routines have created a sound environment for student learning to take place.

- In 86% of mathematics lessons observed (n=7), classroom space was attractive and well-organized, which contributed to the positive learning environment.
- Classroom observers noted that students were attentive and respectful to their peers and teachers.
- In focus groups, teachers expressed appreciation for the collegiality at the school, including informal classroom visits and sharing, purposeful classroom locations to promote interaction.
- In 86% of mathematics classes observed, lessons were well-organized. Learning objectives were posted, explained and followed throughout the lesson.

Efforts and willingness to implement Connected Mathematics Program (CMP) were evident.

- In all mathematics classes observed (100%), the lesson was based on CMP. Observers noted students using CMP texts, lesson objectives and components consistent with CMP.
- In most lessons observed, both the Launch and Explore components of the CMP Workshop Model were observed.
- In focus groups, teachers reported using CMP and participation in professional development (PD) related to the mathematics program. Teachers also indicated that frequent discussions occurred with colleagues regarding implementation of CMP.

Priority Areas for Improvement

The implementation of the CMP Workshop Model (Launch-Explore-Summarize) was often incomplete and lacked rigor and active student engagement.

- In 100% of CMP mathematics lessons observed (n=5), observers noted that the Launch lacked a rigorous essential question. This limited opportunities for students to explore, ask questions at high levels and actively engage in the lesson.
- In some classrooms, the teacher explained step-by-step mathematical procedures to students, as opposed to letting students explore the problem, as CMP is designed. Student learning in these classes was described as passive.
- In 40% of CMP mathematics lessons observed, the Launch ran too long and, as a result, teachers were unable to complete the full CMP lesson in all mathematics classes observed.
- In 100% of CMP mathematics lessons, the Summarize component of the workshop model was not observed. This is a critical component of the CMP lesson because it provides an opportunity for synthesis of learned material, review of the lesson objective and prepares students to be successful with homework assignments.

There was no evidence of differentiated instruction or strategies to meet students' varied learning styles and achievement levels.

- In all of the mathematics lessons observed (n=7), use of differentiated instruction was not observed. In these instances, the lesson was primarily teacher-directed and all students moved through the lesson content at the same pace.
- In all (100%) of the mathematics lessons, use of higher-order, probing or differentiated questions to challenge students or address varied learning needs were not observed.
- In 71% of mathematics lessons observed, very little feedback was provided to students. Observers noted that teachers answered students' questions when asked, but students who were engaged in lesson activities were rarely addressed.

Recommendations

Provide training and focused planning to improve the delivery and rigor of the CMP Workshop Model (Launch-Explore-Summarize) by:

- Incorporating a multi-faceted, higher-order essential question in the Launch phase that challenges students to explore;
- Promoting active student engagement in the Explore phase to promote deeper understanding. Consider using cooperative groups that incorporate feedback from teachers and dialogue with peers to create increased learning opportunities; and,
- Emphasizing time management to ensure that the Launch component does not run too long and that lessons include the Summarize component of the CMP Workshop Model.

Develop increased rigor of mathematics lessons by providing opportunities for teachers to learn and practice differentiated instructional strategies by:

- Developing structures for teachers to observe model lessons through video case studies, peer observations (within the school and/or the district) or constructed scenarios to train staff in use of differentiated instructional practices and varied approaches to teaching and learning;
- Hiring a mathematics coach or other personnel with expertise in mathematics to provide embedded support to individuals and groups of staff to promote the use of new and varied teaching strategies. Consider emulating the model adopted by the reading department chair;
- Monitoring newly-learned teaching strategies to ensure proper implementation; and,
- Providing meaningful and targeted feedback to teachers on selected instructional practices.

2. Informing Practice with Data – Mathematics

Areas of Strength

Teachers are enthusiastically beginning to use data from the MAP to group students for instructional purposes.

- In focus groups, teachers reported being excited about the opportunities MAP data offers to better understand student strengths and weaknesses.
- Teachers and school leaders reported that, as a result of MAP data, grouping and regrouping students is occurring with increased frequency.

Priority Areas for Improvement

There was limited use of formative assessments to check for student understanding and make adjustments to lessons.

- In 100% of mathematics classes observed (n=7), the use of formative assessments to measure student understanding of lesson content (i.e., questions, informal observations of student work, written reflections) were not observed.
- In 86% of mathematics lessons observed, teachers did not check or address students' prior knowledge.
- In 100% of mathematics classes observed, teachers did not ask probing questions to check or challenge levels of student understanding.

Recommendations

Select specific formative assessments and promote use of these strategies to check for understanding (and to help differentiate instruction) school-wide by:

- Incorporating input from teachers on which formative assessment strategies should be selected for implementation;

- Training teachers and providing time for practice with selected formative assessment strategies;
- Monitoring newly-learned formative assessment strategies to ensure proper implementation; and,
- Providing meaningful and targeted feedback to teachers on selected formative assessment practices.

3. Time for Teachers and Students

Areas of Strength

The school has a variety of programs and interventions that are available to students.

- Advancement Via Individual Determination (AVID) provides an emphasis on writing, study and organizational skills for students identified as working below expectations but capable of completing a college preparatory path. There are currently 72 students participating in the program at Forest Grove Middle School.
- The school's Academic Literacy program provides additional support in ELA and reading to 7th and 8th grade students, in 10-week sessions. Students remain in the program as long as identified needs persist.
- Additional targeted intervention is being provided through mathematics enrichment classes to a small cohort of students with the greatest need.
- A computerized mathematics tutoring program and assessment system – *Assistments* – is used to provide students with mathematics support and to provide teachers with information about student learning gaps.
- Massachusetts Comprehensive Assessment System (MCAS) tutoring is available twice a week for 100 students.

Personnel in leadership positions/leadership teams have sufficient time to plan and collaborate.

- Department heads meet with the principal twice a month on a voluntary basis. Department meetings are held once a month and focus on the curriculum.
- The instructional leadership team (ILT), comprised of representatives from each of the clusters (i.e., grade level instructional teams) meets every two weeks to discuss school-wide instructional practices.
- The Positive Behavioral Intervention and Supports (PBIS) committee meets bi-monthly to discuss and respond to classroom discipline issues.

Priority Areas for Improvement

It is not clear that the current school day schedule provides sufficient time for general instruction in ELA and mathematics.

- ELA: 53 minutes is the average block of instruction.
- Mathematics: 53 minutes is the average block of instruction.
- In focus groups, teachers expressed concern about not having enough time for ELA or mathematics instruction.
- In 100% of CMP mathematics lessons observed (n=5), teachers did not complete the full CMP lesson. As a result, students were not provided opportunities to summarize learned content.

There is insufficient common planning time (CPT) for teachers to regularly share ideas, materials or collaborate on strategies to improve teaching and learning.

- Cluster teams meet during the homeroom periods for a total of 30 minutes (15 minutes in the morning and 15 minutes in the afternoon), twice a week, for CPT.
- Short amounts of CPT provided are sometimes used for parent meetings instead of focusing on teaching and learning.
- Cluster (instructional team) CPT does not provide opportunities for content area teachers to share instructional strategies or to plan lessons.
- In focus groups, some teachers reported collaborating informally on their own time. However, this does not provide the necessary structure or focus to improve instructional practices.

Recommendations

Revisit the school day schedule to ensure adequate instructional time in ELA and mathematics by:

- Assessing the adequacy of time spent on teaching (e.g., Is there enough time to complete a lesson?) and learning (e.g., Are students receiving the necessary content and skills?);
- Considering current programs/initiatives that have been effective, such as the Literacy Strategy of the Month. Incorporating such strategies across content areas may help to integrate further time on ELA; and,
- Considering lengthening the mathematics blocks so that teachers have sufficient time to implement the CMP Workshop Model and/or to address the needs of a larger cohort of students who are struggling in this subject area.

Identify additional and/or alternative scheduling options to incorporate increased and focused CPT for teachers.

- Content-area-specific meetings may help to build a common language, strengthen lesson development and implementation and assist staff in working toward uniformly high expectations for student learning and performance.
- CPT may also focus on systematizing school-wide practices and strategies aligned with identified improvement targets.

4. Leadership for Instructional Improvement – DISTRICT*Areas of Strength***Within its current budgetary resources, the district provides sufficient personnel and time to the school to support its programs.**

- The district provides two assistant principals and a full-time facilitator.
- The district provides content area liaisons to support school department chairs through regular meetings to dialogue about best practices, program development and implementation.
- District leaders regularly visit the school to meet with the school administration and to conduct walk-throughs.
- The district meets on a monthly basis with school principals to, in part, assess progress in meeting district and school goals.

School leaders and teachers reported that several district initiatives and trainings had responded to needs of the school's program, teachers and students, including, for example:

- The middle school task force, led by the deputy superintendent, has come together to address student and teacher needs at the middle school level;
- Rich PD offerings, in particular, to support the implementation of CMP, MAP, *Assistments* and the Skillful Teacher/Administrator;
- Developed a leadership institute for secondary department chairs as a venue for sharing best practices and examining student work; and,
- A summer transition program for incoming 7th grade students with a focus on academics in the morning and recreation in the afternoon.

Priority Areas for Improvement

There is no clear and cohesive set of curriculum documents to guide the ELA program, including how performance expectations will be aligned, communicated and monitored.

- The team saw no document that guides teachers in how to pace, sequence and organize the content of the Massachusetts Curriculum Frameworks or the district curriculum objectives for effective instruction at the middle school level.
- There are no targets/benchmarks or student work exemplars to build a common understanding or to identify student performance levels in ELA – that is, what students are expected to know and be able to do beyond achieving mastery of the Massachusetts Curriculum Frameworks.
- Use of a comprehensive writing program is not yet evident. Staff has begun training in the Writers Express program. However, in focus groups, teachers reported using a variety of resources and instructional methods.
- Two 7th grade classes are piloting a new text, Holt: *Elements of Literature*, which is aligned with the Massachusetts Curriculum Frameworks.

The focus at the district level has been on implementation of instructional programs, related trainings and intervention programs. There is not yet a clear focus or a coherent plan for improving teaching practices.

- There is not a formalized protocol for walk-throughs in ELA or reading.
- It is not clear that CMP E-walk protocols supply instructional staff with sufficient or meaningful feedback beyond structural implementation of the program to improve teaching and learning.
- Teachers and school leaders have engaged in a range of district-provided PD opportunities (e.g., CMP, MAP, *Assistments* and the Skillful Teacher/ Administrator) but there is no clear evidence as to how the impact of these trainings is monitored to ensure impact at the classroom level.
- The district is currently providing training to teachers in differentiated instruction. There is no clear plan for how quality of implementation of learned strategies will be monitored or assessed to ensure desired impact on teaching and learning.

Recommendations

Provide a well-developed curriculum guide for 7th and 8th grade ELA that includes a conceptual and organizational framework for how to approach discrete learning objectives at each grade level. Suggested for inclusion in this guide:

- An effective scope and sequence for instruction, student exemplars and specification of which curriculum objectives will be introduced, practiced and mastered in each grade;
- Examples of relevant instructional strategies and key instructional vocabulary;
- Targets/benchmarks to identify student performance levels in ELA; and,

- Student work exemplars and evaluation rubrics to build a common understanding among teachers about what constitutes high level work in ELA.

In order to move curriculum implementation to the next level, provide focused support to improve the quality of classroom instruction by:

- Ensuring informal observation protocols include elements that specifically target instructional practices in need of improvement;
- Offering professional development on specific teaching strategies and approaches to be implemented in the classroom;
- Providing guided practice and support to teachers through embedded coaching. Focus on one or two strategies at a time until teachers master the practice; and,
- Ensuring teachers are presented with meaningful feedback on instructional practice. Provide feedback with increased frequency as new strategies are learned.

Support the school to focus efforts on development of consistent, high quality classroom instruction, with less emphasis on the wide array of existing initiatives.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

Through attention to PD and active decision-making processes and involvement, the principal has provided the school with many aspects of instructional leadership. These features include:

- Devoting one mandated monthly after-school meeting to PD, organized by the school's facilitator;
- Encouraging participation in professional training opportunities (Skillful Teacher, Leadership Institute, etc.);
- Constructing positions for teachers to also provide leadership at the school (e.g., department heads, ILT);
- Providing teachers with informal feedback – from both the principal and department heads – on classroom practice. A review of observation forms noted specific references to instruction;
- Holding teachers accountable for performance through a rigorous formal evaluation process;
- Creating a new reading department chair separate from the ELA department, who has limited teaching responsibilities (one class per day). The reading department chair provides in-class support and embedded coaching for teachers, with an emphasis on integrating literacy across the curriculum;

- Implementing looping (i.e., teachers follow the same students both years at the school), which offers both students and teachers increased continuity and opportunity to build relationships;
- Supervising the summer Writers' Express program at the school. Student success with this program increased parent interest in the school program, including participation in the School Site Council; and,
- Actively seeking outside opportunities to provide additional opportunities for the school (e.g., actively seeking grants, membership in New England League of Middle Schools).

Priority Areas for Improvement

Focus at the school has been on implementation of many programs, as opposed to emphasis on the development of high quality classroom instruction.

- School and district leaders reported that many initiatives at the school are having a positive impact on student performance but that information on program effects and outcomes has yet to be evaluated.
- School leadership indicated that the school may have too many interventions and initiatives in place and that it is unclear if they are all effective or having the desired impact. The principal acknowledged this weakness, indicating that, "you can't get it done without solid instruction."
- Opportunities for department heads to provide feedback to teachers on instruction is limited by nearly full-time teaching schedules. ELA and mathematics department chairs teach four and five classes, respectively.
- In focus groups, teachers frequently indicated further practice in differentiating instruction was needed.

Recommendations

Assess the effectiveness of school initiatives and intervention programs to determine which are most valuable to the student experience. Retain only the most powerful programs, or components of these programs.

Focus on developing high quality instructional practices to promote increased student engagement and learning school-wide.

- See recommendations for developing increased differentiated instructional practices for ELA and mathematics, as well as focused support to improve the quality of classroom instruction under district recommendations.

LINCOLN STREET ELEMENTARY SCHOOL

November 15 - 17, 2006

1. Standards-based Teaching and Learning – English Language Arts*Areas of Strength*

There is a positive, safe and supportive climate at the school, which radiates collaborative practice and promotes learning.

- In 100% of English language arts (ELA) classes observed (n=10), strong teacher-student rapport was noted, as well as positive teacher-teacher interactions and student-student relationships.
- In 100% of ELA classes observed, the physical appearance of the classroom was noted as attractive and well-organized, resulting in an environment in which students were willing to take risks.
- In focus groups, teachers reported having frequent and voluntary meetings during common planning time (CPT) to plan and to share ideas.
- In focus groups, teachers indicated that they actively seek out the support of the principal, the No Child Left Behind Implementation Teacher (NCLBIT), the English Language Arts Intervention Teacher (ELAIT) and/or peers to discuss classroom practice and student academic performance.

Teachers are implementing ELA core programs and reading interventions with confidence and enthusiasm.

- In 100% of ELA classes observed (n=10), Houghton Mifflin (HM) materials were in use – HM teacher manuals, student textbooks and extension materials, such as leveled guided reading books.
- School leaders and staff expressed excitement for the school's new writing program. All classroom teachers are being trained by the ELAIT twice a week through scheduled modeling of lessons and follow-up.
- In focus groups, teachers reported feeling confident in the success of the intervention programs (e.g., Early Reading Intervention [ERI], Soliday System) in increasing student reading performance.

Teachers are beginning to use the HM program more as an instructional tool, moving from structured routines to refining practices.

- One school leader reported that, regarding the HM program, teachers are asking “more purposeful questions rather than procedural [questions].”
- In focus groups, teachers described making modifications and adjustments to activities to match student needs, including the specific needs of English language learners (ELL) and special education students.

School leadership and teachers are working toward establishing consistent, school-wide practices.

- As part of the new writing program, teachers are using rubrics to assess student work. Through looking at student exemplars, teachers reported that student work is now scored reliably. In addition, use of common terminology in reading and writing has increased student confidence in approaching learning tasks.
- In focus groups and interviews, school staff reported that specific graphic organizers have been selected and are being used consistently at some grade levels. Observers noted use of graphic organizers in some classrooms.
- In 100 % of ELA classes observed, students were seen working in groups or at literacy centers.
- School leaders and teachers reported using the same lesson plan template. In 100 % of ELA classes observed, both daily and weekly lessons plans were organized in a consistent format.
- In focus groups and interviews, school staff reported that, in addition to an ELA objective, teachers also identified an additional objective to address the specific needs of ELL students.

Priority Areas for Improvement**There is evidence of good instructional practices in some classrooms; many foundations are in place. However, high quality practices are not yet evident school-wide.**

- In 70% of ELA classes observed (n=10), teachers did not differentiate instruction by content (materials used), by process (strategies students use to access the content) or by product (student work/outcomes). Although students were working in groups or at centers in many classrooms, students were working on the same task with the same expectations for completed work.
- In 80% ELA classes observed, lessons were teacher-directed. In these lessons, students were given limited opportunities to explore the content, engage in self-reflection, examine and extend thinking and/or support/defend reasoning with evidence.
- In 50% of ELA lessons observed, teachers did not ask higher-order or probing questions to challenge students or to deepen student understanding. In these classes, the most frequent forms of questioning were at a literal level (e.g., yes/no, recall and basic comprehension questions). Conversely, in the other 50% of lessons observed, teachers used probing questions to provide students opportunities to engage in discussion and synthesis of lesson content.
- In 50% of lessons observed, teachers did not access students' prior knowledge or ask questions that encouraged students to make connections to previous lessons and/or real-life experiences. This practice, however, was occurring in 50% of classes observed.

Recommendations

Use existing resources to continue establishing consistent practice and to improve teaching and learning school-wide by:

- Continuing to use the NCLBIT, ELAIT and teachers as instructional resources. Consider the strengths of all individuals and delegate/distribute tasks accordingly;
- Utilizing the expertise of ELL and special education staff and their knowledge of differentiated instructional strategies to inform classroom practices school-wide. Continue to use and further incorporate strategies that specifically address ELL in the regular classroom; and,
- Capitalizing on the vast amount of books and materials that the school has available.

Identify and select strategies that will continue to strengthen teacher knowledge and use of differentiated instructional practices by:

- Developing sample, exemplary lessons based on a selected strategy, which are modeled for teachers, including: instruction that is differentiated by content (materials used), process (what strategies students will do/practice to access the content) and product (the resulting student work);
- Offering teachers opportunities to experiment with learned teaching strategies in small groups (e.g., Direct Instruction [DI] study groups) and center activities;
- Ensuring that teachers receive frequent and meaningful feedback on learned teaching strategies that include follow-up discussion and review with peers; and,
- Expanding the design of the lesson plan template to include a focus on selected/targeted differentiated instructional strategies to encourage thoughtful preparation and planning.

2. Informing Practice with Data – English Language Arts

Areas of Strength

There are sufficient ELA/reading assessments being used to effectively identify and address student learning needs. There are supports in place to assist teachers in using data.

- In focus groups, teachers and school leaders reported that, as a result of the Measures of Academic Progress (MAP), at-risk students are being identified earlier and more frequently to receive extra support and targeted intervention.
- The school uses the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) to assess student learning through progress monitoring every two weeks.
- In focus groups and interviews, teachers and school leaders reported increased flexible student groupings and targeted instruction for students that was based on their learning needs.

- The NCLBIT provides ongoing scheduled training and support for teachers in interpreting and using data to group students appropriately.
- In focus groups, teachers expressed enthusiasm about use of Diagnostic Writing Assessment (DWA) to benchmark and monitor student growth in writing.

Priority Areas for Improvement

Classroom instruction did not consistently incorporate use of formative assessments to diagnose student understanding, provide students feedback or differentiate instruction.

- In 60 % of ELA classes observed (n=10), formative assessments (e.g., questions, informal observations of student work, written reflections, mini-tests, learning logs) were not used to check for student understanding, to inform instruction and/or the direction of the lesson.
- In 70% of ELA classes observed, teachers used the same instructional strategies and materials for working with all students.
- In 60% of the ELA lessons observed, students were not involved in self-reflection to extend thinking about their performance. There was limited active student discussion between teachers and students, or student-to-student, observed in these classrooms. This limits opportunities for teachers to better understand student learning strengths and gaps.
- In 100% of ELA classes observed, teachers did not show exemplars of student work to help students better understand the task or expected outcomes.

Recommendations

As experience and confidence with MAP data increases, continue to discuss, share and refine methods used to identify students who would benefit from varied instructional approaches.

Incorporate greater use of formative assessments to drive ongoing, instructional decisions, differentiation and increased rigor for students by:

- Increasing use of higher-order and probing questions by both teachers and students. Consider using Bloom's Taxonomy and verb starters that challenge teachers and students to collaboratively develop more challenging questions. For example, post lists of verb starters applicable to specific grade levels in each classroom to guide development of these questions;
- Increasing use of student exemplars to model expectations for learning outcomes and to challenge students to develop higher quality products. Increase teacher modeling of specific reading strategies by using, for example, a "Think Aloud" approach during Read Aloud and Shared Reading activities; and,
- Ensuring that teachers have the necessary training, practice and feedback to ensure quality implementation of formative assessments.

1. Standards-based Teaching and Learning – Mathematics*Areas of Strength*

There is a positive and collaborative climate and culture at the school that creates a sound learning environment for students.

- In 100% of mathematics classes observed (n=11), it was noted that the physical appearance of the classroom was attractive, with colorful displays, appropriate equipment and ample space for teachers and students to move around.
- In 92% of mathematics classes, students were comfortable and willing to take risks, frequently raising hands to respond to questions and volunteering to work at the board in front of the class. Positive and respectful teacher-student and student-student interactions were observed.
- In 100% of mathematics classes observed, students were engaged in the lesson and the activities assigned. Positive student behavior was noted across classrooms and the school.

Teachers are consistently, effectively and efficiently implementing standards-based lessons using the Everyday Mathematics (EDM) program.

- In 100% of mathematics classes observed (n=11), EDM was in use. EDM supplemental materials and manipulatives (e.g., number lines, base 10 cubes) were available, accessible and used appropriately.
- In 100% of mathematics classes observed, observers noted that the lesson was well-organized, logically developed and based on EDM learning objectives.
- In 82% of mathematics classes observed, the lesson referenced the Massachusetts Curriculum Frameworks. The standard was explained in student-friendly language.
- In 82% of mathematics classes observed, time was used efficiently and purposefully to accomplish the lesson objective. For the majority of the lessons' duration, transition time was minimal, lessons were properly paced and students were engaged in learning.

Teachers possess the necessary mathematical skills and content knowledge to elicit active student engagement in the learning process.

- In 91% of mathematics classes observed, teachers' knowledge of mathematical concepts was evident throughout the lesson. Teachers accurately presented content, answered questions and corrected student errors in a timely manner.
- In 56% of mathematics classes observed, teachers incorporated prior student knowledge from previous lessons. For example, at the beginning of a lesson, students were asked to recall what they already knew about multiplication. In another class, students were asked to apply previous knowledge of fractions to simplification and reduction processes.
- In 64% of classes mathematics classes observed, multiple forms of representation (e.g., diagrams, pictures, tables, line plots) were used to present lesson content.

- In 73% of mathematics classes observed, there were high expectations for all students. Most students actively participated and were actively engaged in learning lesson content in various ways. This was attributed to the many sound practices that are occurring in mathematics classes.

Priority Areas for Improvement

There is evidence of good instructional practice in some classrooms. EDM has provided the necessary foundation and many teachers are on the verge of implementing a range of sound practices. However, high quality instructional practices are not yet evident school-wide.

- In 64% of mathematics classes (n=11), multiple student grouping strategies were not observed. Student groupings – an initial step toward differentiation – were noted in 36% of classes. In 82% of lessons observed, however, differentiation by content, process or product was not observed. Although groupings may have been present, students were working on the same activity and the lesson moved at the same pace for all students.
- In 64% of mathematics classes observed, there was no use of higher-order or probing questions to extend or challenge student thinking and learning. In 36% of lessons observed, however, use of probing questions was observed.
- In 82% of mathematics lessons observed, students were not given sufficient opportunities to talk about mathematical concepts, explore thinking or explain processes used to derive answers to mathematics problems.

Recommendations

Identify and select strategies that will continue to strengthen the use of differentiated instructional practices in the classroom by:

- Expanding the design of the lesson plan template to include a focus on selected/targeted differentiated instructional strategies to encourage thoughtful preparation and planning;
- Developing sample, exemplary lessons based on a selected strategy, which are modeled for teachers, including instruction that is differentiated by content, process and product;
- Offering teachers opportunities to experiment with learned teaching strategies in small groups or during common planning times;
- Using instructional resources currently available at the school (e.g., teachers, assistant principal) to provide embedded support in the classroom; and,
- Ensuring that teachers receive frequent and meaningful feedback on learned teaching strategies that include follow-up discussion and review with peers.

2. Informing Practice with Data – Mathematics

Areas of Strength

The addition of the MAP has provided increased, valuable information to identify student learning strengths and areas of need in mathematics.

- In focus groups, teachers were enthusiastic about information that the MAP is providing. Teachers reported that, as a result of MAP data, students are being grouped and targeted for additional in-class assistance.
- Documents shared with the fact-finding team indicated that MAP data are being disaggregated by skill and concept performance so that specific areas of student learning gaps in mathematics may be addressed.

Priority Areas for Improvement

Formative assessments were not consistently used to check for student understanding or to extend mathematical thinking beyond the level of knowledge and comprehension.

- In 72% of mathematics classes observed (n=11), formative assessments were not being used to monitor student understanding or to inform instruction during the lesson. Teachers were not observed altering the flow of the lesson as a result of student responses.
- In classes in which students did receive feedback (28%), teachers primarily assessed whether students had the correct or incorrect answer (e.g., students held up answers on white boards). Students were not asked to explain processes used to derive answers (higher-order thinking) and, as a result, were not provided opportunities to self-correct.
- In 64% of mathematics classes observed, there was no use of higher-order or probing questions to extend or challenge student thinking and learning.

Recommendations

As experience and confidence with MAP data increases, continue to discuss, share and refine methods used to identify students who would benefit from varied instructional approaches.

Incorporate greater use of formative assessments to provide students feedback, drive ongoing, instructional decisions and differentiate lessons by:

- Increasing use of higher-order (e.g., Bloom's Taxonomy) and probing questions by both teachers and students;
- Requiring students to further explore and explain mathematical reasoning, moving beyond factual (i.e., correct/incorrect) responses;
- Using student exemplars to model expectations for learning outcomes and to challenge students to develop higher quality products; and,
- Ensuring that teachers have the necessary training, practice and feedback to ensure quality implementation of formative assessments.

3. Time for Teachers and Students

Areas of Strength

The school schedules sufficient time for ELA and mathematics instruction.

- ELA: Students receive a minimum of 120 minutes of instruction per day.
- Mathematics: Students receive a minimum of 60 minutes of instruction per day, plus short exercises.

Targeted interventions are available in reading and ELA, specifically at the primary level.

- Both school leaders and teachers indicated that, due to MAP data and DIBELS progress monitoring, the needs of at-risk students are being identified sooner.
- Students identified as Tier 2 in the HM three-tier intervention model are receiving an additional 30 minutes of targeted ELA instruction.
- The school uses three intervention programs for students who are struggling with reading: 1) ERI in grades K-1; 2) Sonday System in grades 1-3; and, 3) Soar to Success in grade 3.

There are a range of purposeful and targeted practices and interventions to meet the needs of ELL and special education students.

- Targeted interventions for English language learners are provided in pull-out and inclusion settings.
- Special education interventions are aligned with goals in students' Individualized Educational Plans (IEPs), classroom curriculum and Massachusetts Curriculum Frameworks.
- Special education pull-out programs reinforce classroom ELA content through alignment with the Massachusetts Curriculum Frameworks and use of the Wilson Reading System.

Opportunities for teachers to plan together and collaborate have been scheduled.

- Common planning time (CPT) is built into the schedule two times per week: 30 minutes for primary teachers and 40 minutes for intermediate teachers during specials. Teachers in focus groups reported they "love it [CPT]" and feel it is impacting instruction.
- The principal or the NCLBIT typically provide guidance and oversight to CPT by joining one CPT meeting per week.
- Specials are scheduled to give grade-level teachers opportunity during lunch to share planning and instructional strategies.
- One faculty meeting per month and part of the second faculty meeting are dedicated to professional development (PD) specifically designed to impact teaching and learning – development and collaboration on new writing program, for example.
- The new writing program was introduced in one of the 90-minute monthly faculty meetings with follow up at other faculty meetings. During this time, teachers worked in small groups to learn to use and share information about the writing rubrics.

Priority Areas for Improvement

Targeted intervention programs are not available in ELA for grades 4-6 or in mathematics for all grade levels (K-6).

- The school depends on differentiated instruction by classroom teachers to address the needs of students. Differentiated instructional practices are not evident school-wide.

Recommendations

Assess the effectiveness of current ELA and reading interventions.

- The school has not met Adequate Yearly Progress (AYP) in ELA and is designated, according to No Child Left Behind (NCLB) guidelines, as in Restructuring.
- Ensure that K-3 intervention programs are having the necessary impact at the primary grade levels and that the skills students learn are maintained at the intermediate grade levels.

Assess the need for specific intervention programs for ELA in grades 4-6 and mathematics, school-wide (K-6).

- Although the school does not have an NCLB designation in mathematics, ensure student performance in this subject area is monitored and that further intervention is not needed.
- Given limited resources and that student performance in mathematics is higher than in ELA, it may be that the allocation of focused resources in ELA (e.g., ELAIT, intervention programs) was well-prioritized.

4. Leadership for Instructional Improvement – DISTRICT

Areas of Strength

Through grants, the district has provided the school its Reading First Program, including extensive instructional materials, programs and tutors.

- The grant provides three literacy tutors and, in the first year, \$120,000 for resources that have been catalogued and made available in a resource room.

The district provides sufficient classroom teaching staff and monitors and supports the school's implementation of programs.

- The district added teaching positions at Lincoln Street Elementary School this year.
- The quadrant manager visits Lincoln Street Elementary School approximately once a week. Other district leaders visit the school regularly.
- Through a variety of ongoing monthly meetings and trainings – the Leadership Institute, for example – the district provides PD for principals.

- The quadrant manager conducts walk-throughs with the principal. Goals for the school that are aligned with those of the superintendent are developed.

Priority Areas for Improvement

The district has not succeeded in allocating scarce resources to fund content-specific embedded coaching in mathematics to support teachers in integrating newly-learned strategies into daily practice.

- Embedded coaching in mathematics is not available. This responsibility resides with the assistant principal, who also has a nearly full teaching schedule.

The district has not yet established clear expectations for what high quality instruction looks like at the classroom level. A clear coherent, focused plan for improving teaching practices is currently not in place.

- It is not clear that current E-walk protocols supply teaching staff with sufficient or meaningful feedback on the quality of instruction beyond the structural implementation of the HM and EDM programs.
- There is no common language used to discuss instructional practice.
- No district-level administrator is assigned the specific task of overseeing instruction. It is currently a shared responsibility at the district level.
- The district's new teacher evaluation tool, which is based on the Skillful Teacher, contains further focus on specific teaching practices. This may be a good resource to assist in the development of future instructional monitoring tools.

Recommendations

Provide clear expectations and a common language for what excellent instructional practice should look like at the classroom level. Articulate a well-developed plan to ensure implementation of these standards for teaching and learning in every classroom by:

- Building a common language that can be used to talk about instructional practice throughout the district and school. This includes a shared vision and understanding about what high quality instruction looks like in the classroom;
- Revising informal observation protocols to include a specific focus on instructional strategies, especially those practices in need of improvement; and,
- Selecting teaching strategies that are in need of improvement and providing training to teaching staff and instructional leadership. Use of a professional development plan with goals and benchmarks for moving instruction forward is likely to be beneficial.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

The principal – in only her first few months as leader of this school – has demonstrated data-based and purposeful decision-making, designed to target areas in need of improvement.

- Following a review of student and school data, the principal instituted three key improvement initiatives that provide a common language for teachers to talk about practice; namely,
 - Implemented a writing program that includes opportunities for teachers to examine student work through use of rubrics and the DWA to monitor student writing progress;
 - Implemented unified use of a new lesson plan format. A review of lesson plan documents and classroom observations indicated the new lesson plan is in use at the school; and,
 - Implemented a Positive Behavioral Intervention and Support (PBIS) system to establish clear expectations for behavior and to begin to provide staff and students with a common language to talk about performance.
- The principal restructured the school’s leadership to provide increased oversight and support to staff and students at the classroom level, specifically in ELA, by:
 - Recruiting teachers thought to be an appropriate match for school and student needs; and,
 - Advocating for an ELAIT to ensure the school has support for curriculum and instruction in this subject area.

There is an established, shared instructional leadership model at the school that incorporates staff and allows school leaders to maintain clearly defined roles.

- In addition to oversight of school operations, the principal works collaboratively with the leadership team (ELAIT, NCLBIT and assistant principal) to develop systems to support teaching and learning. In focus groups, teachers reported the principal is highly visible.
- The ELAIT, NCLBIT and assistant principal were described as the school’s practitioners who support teaching and learning at the classroom level.
 - The ELAIT is providing model lessons in every classroom two times a week to support implementation of the new writing program.
 - The NCLBIT supports implementation of the school’s curricula through in-class support, works with staff on use of data to inform instruction and provides follow-up to teachers based on informal walk-throughs conducted by the principal.
 - The assistant principal, also a full-time teacher, is an additional resource for teachers, especially in mathematics.
- In focus groups, teachers described a culture of collaboration in which they welcome feedback, seek ideas from other teachers and leaders, and occasionally model lessons for their colleagues.
- School leaders reported that staff is encouraged to take initiative and that some teachers have become leaders among their peers, specifically in areas of instructional strength.

Priority Areas for Improvement

Feedback to teachers lacks the specificity required to develop consistent, school-wide, high quality instruction.

- The principal reported four aspects of teaching and learning that are noted during informal classroom observations: 1) the environment; 2) what the teacher is doing; 3) what children are doing; and, 4) student outcomes. These expectations have been verbally shared with teachers, but written documentation and clear criteria have yet to be established and disseminated to teachers.
- Feedback to teachers is informal, provided primarily through notes that are left for teachers on their desk or in the lesson plan book.
- Written feedback to teachers on lesson plans tended to be general and did not include comments about specific instructional strategies.

It is not clear that teachers are receiving adequate support to move implementation of the mathematics curriculum to the next level.

- The assistant principal, who has expertise in mathematics, has a full-time teaching schedule. This offers opportunities to observe, support, model lessons and mentor teachers during preparatory periods only.
- A review of the NCLBIT log indicated that limited time is spent on mathematics.

Recommendations

Build upon the foundations that are already present in the classroom to continue to improve instructional practices that promote active student learning by:

- Continuing to develop a common language and understanding that surrounds instruction and classroom practice, to expand both staff and student use of vocabulary that is central to teaching and learning;
- Raising expectations and challenging all teachers to increase use of differentiated instruction and to extend more frequent opportunities to students to explore and explain their thinking;
- Providing time for teachers to discuss (through already occurring CPT) and practice newly-learned strategies, which includes classroom-based support (e.g., embedded coaching);
- Ensuring teachers are provided frequent and meaningful feedback on instructional practices; and,
- Continuing to incorporate use instructional strategies for ELL students in the regular classroom.

SULLIVAN MIDDLE SCHOOL

November 17, 20-21, 2006

1. Standards-based Teaching and Learning – English Language Arts

Areas of Strength

The school has established a positive environment for faculty and students in which learning can occur.

- In 83% of English language arts (ELA) classes (n=12), observers noted that student-to-student and student-teacher interactions were positive and supportive. The environment was safe and students were willing to take risks that contributed to lesson activities and learning.
- In 92% of ELA lessons observed, the appearance and physical organization of the classrooms were pleasant and supportive of student learning. For example, student work was displayed, some classrooms had lamps and comfortable areas set aside for reading. Resource materials (e.g., thesauruses, dictionaries and novels) were organized on shelves for easy student access.
- In 83% of ELA lessons observed, time was used efficiently and purposefully. For example, students were observed beginning their days with productive morning work routines and engaging in fluent transitions between sections of the lessons.
- In 75% of ELA lessons, observers noted that students were engaged in lesson activities and demonstrated appropriate behavior. For example, students were observed participating in substantive literature discussions and making connections to high interest current events.
- In focus groups, teachers indicated frequent informal collaboration with academy-based colleagues, including seeking and receiving support from department heads and engaging in peer observations.

Teachers demonstrated use of state and district curriculum standards in developing classroom activities.

- In most classrooms observed, teachers cited the Massachusetts Curriculum Frameworks and Worcester Public Schools (WPS) curriculum objectives on lesson plans and/or on classroom agendas. In focus groups, many teachers confirmed that they used these objectives to plan lessons.
- In focus groups, reading teachers indicated they “drew from” materials in the WPS academic literacy course when they provided instruction.
- In focus groups, ELA teachers reported using the district WPS writing portfolios to help students complete their work and that writing portfolios are used to track student achievement and growth over time.

Priority Areas for Improvement

There is evidence of good instruction and high expectations for student performance in some classrooms. These practices, however, are not yet evident school-wide.

- In 73% of ELA lessons observed (n=11), students were not responsible for their own learning nor engaged in examining performance results with directive feedback. Conversely, in the other 27% of lessons, students engaged in self-assessment and/or teachers provided feedback using rubrics or one-to-one interaction.

- In 58% of ELA lessons observed (n=12), students were not observed examining their thinking or questioning their understanding of the content presented. In 42% of lessons, however, time was provided for students to engage in sustained inquiry, discussion, debate and/or questioning.
- In 50% of ELA lesson observed (n=12), teachers did not use exemplars to demonstrate expectations of student achievement. In the other 50% of lessons, samples of successful student work were displayed and used to convey specific and high expectations.
- In many classrooms observed, students were not held accountable for performance. For example, clear organizational standards for student notebooks and work were not in evidence in some classrooms. Teachers were observed awarding full credit for homework assignments that varied widely in quality.

Teachers did not consistently demonstrate understanding or use of differentiated instructional approaches to address students' varied learning needs and styles.

- In focus groups, some teachers indicated they felt that creating class groupings of high, medium and low abilities constituted sufficient differentiation for instruction.
- Classroom observers noted many whole-class lessons, with little attention given to planning instructional experiences to address individual student learning needs.
- In 46% of ELA classes observed, lessons were not differentiated by content, process and/or product. Conversely, in 54% of lessons observed, students worked in differentiated groupings (small groups and/or partners) and with varied pacing for at least part of the lesson.

Teachers indicated that WPS writing portfolios were used and that students were asked to use writing in daily work. However, teachers were infrequently observed providing explicit writing instruction or applying clear assessment strategies to student work.

- Classroom observers noted little evidence of direct instruction in writing. Use of writing workshops or other sustained writing projects were not seen in any of the ELA classes observed. Writing activities that did occur were informal, using writing as a response or reflection tool. For example, "Write a response to the reading passage," or, "Write a reflection in your journals."
- Although teachers reported that students complete WPS writing portfolios and that entries are evaluated using writing rubrics, writing assessment data was not referenced as a source for planning writing instruction.
- Writing samples observed by the fact-finding team revealed widely varied standards for assessing student writing assignments, despite rubric-based standards.
- Students were not observed using computer technology for sustained writing in any of the classrooms observed.

Recommendations

Increase time, expertise, and accountability for explicit writing instruction by:

- Proving targeted professional development in effective writing instruction;
- Introducing writing workshop or similar practices in which students are coached in peer editing, critiquing and evaluating, and submit writing for publication;
- Incorporating team-based development of effective writing lesson plans; and,
- Including students in the development and implementation of writing evaluation rubrics. This will help to increase active student engagement in the learning process as well as provide accountability for performance.

In collaboration with school leadership, establish a team of representative teachers from each academy to develop a plan for how ELA performance expectations (i.e., what are students expected to know and be able to do) will be aligned, communicated and monitored within academies and across the school by:

- Working with the district on developing the WPS ELA curriculum to include an effective scope and sequence for instruction, student exemplars and specification of which curriculum objectives will be introduced, practiced and mastered in each grade;
- Incorporating curriculum mapping that identifies the scope and sequence of core instruction for the year across academies;
- Establishing a monthly or quarterly focus within each academy on one or two ELA instructional strategies;
- Focusing peer observations and common planning time meetings on development and assessment of the identified key instructional strategies;
- Identifying targets/benchmarks for student ELA performance;
- Identifying and using exemplars to build common understanding among teachers about the content of high level work in reading and writing; and,
- Engaging teachers in collaborative assessment of student work.

Formalize a set of structures and practices for identifying and building upon the best practices that currently exist at the school. This might include the following strategies:

- Two lead teachers co-teaching and being released half time to model lessons and differentiated instructional strategies, coach new teachers, or develop and lead common planning time or professional development sessions for their academies;
- Creating video-lessons for study with new teachers; and,
- Ensuring broad participation on the Instructional Leadership Team (ILT) by those who have identified instructional expertise in the classroom.

2. Informing Practice with Data – English Language Arts

Areas of Strength

Teachers use a variety of sources of data to inform decisions about student groupings and for monitoring student progress in ELA.

- In focus groups, teachers frequently cited using Measures of Academic Progress (MAP) and Massachusetts Comprehensive Assessment System (MCAS) data to make decisions about student groupings.
- In focus groups, teachers reported using a variety of formative assessments to gauge student progress in ELA, including student surveys, quizzes, arts-based activities, self-assessments and rubrics.
- In 67% of ELA lessons observed (n=12), there was evidence of multiple types of diagnostic and ongoing formative assessments.
- In focus groups, teachers indicated that students' daily work and in-class performance provided the most useful information for gauging the effectiveness of instruction.

Priority Areas for Improvement

Currently, there are no priority areas for improvement in the use of data to inform practice at Sullivan Middle School.

1. Standards-based Teaching and Learning – Mathematics

Areas of Strength

Many Sullivan Middle School teachers have the proper background to teach mathematics.

- More than half – 56% (n=9) – of the regular education mathematics teachers at Sullivan Middle school have a degree in mathematics, science or mathematics education.

There is a positive classroom culture in which students showed respect to their teachers and peers.

- In 67% of the mathematics classes observed (n=15), it was noted that student behavior was positive and respectful. Students sat quietly during the lesson, listened to their teacher and classmates and conversed appropriately on task.

Most teachers are using Connected Mathematics Program (CMP) as their primary mathematics curriculum.

- In 87% of mathematics classes observed, (n=15) the lesson was based on CMP. Observers noted teachers and students using CMP books. The posted homework assignments referred to CMP Applications, Connections, Extensions (ACE) questions.

- In 85% of CMP lessons observed (n=13), various components of the CMP instructional model were noted. Teachers used suggested groupings, Launch and/or Exploration components (two of the three CMP components of the workshop model of instruction) were part of the lesson and ACE questions were assigned for homework.

Teachers are seeking to increase their ability to utilize and facilitate the CMP workshop model (Launch-Explore-Summarize) as part of their classroom practice.

- In focus groups, teachers actively expressed a need and a desire for professional development (PD) beyond their initial CMP training.
- In focus groups, teachers reported doing informal peer observations of their colleagues' mathematics classes in order to learn how others were implementing the components of CMP.
- Teachers are using a weekly lesson plan template that incorporates how CMP content and instructional practices will be addressed.
- Looping between 7th and 8th grade allows teachers to become more familiar with prior and future content contained in the CMP middle grades mathematical agenda.

The teaching and learning of mathematics extends beyond mathematics classrooms.

- In focus groups, social studies and science teachers reported that because of common planning time (CPT) with mathematics teachers, they routinely stress mathematical skills (e.g., reading and interpreting timelines, using units of measurement and doing relevant calculations).
- In the after-school program, 6th grade CMP materials are being used to support students who require foundational work on which 7th and 8th grade CMP content is built.

Priority Areas for Improvement

There is inconsistent implementation of the CMP Launch-Explore-Summarize instructional model. The level of rigor to challenge student learning also varied.

- Although there was a Summary component in 53% of the lessons observed (n=15), only one of these featured student presentations – an essential component of CMP. The remaining seven summaries were teacher-led.
- Time for the MCAS problem of the day and/or homework extended up to 13 minutes at the beginning of class. This had a significant affect on the amount of time available to teach other components of CMP lessons – specifically, the Summary.
- In most classes observed, students – even when sitting in groups or pairs – did not engage in mathematical discourse with their peers.
- Although 53% of the lessons observed included conceptual elements, the remaining 47% were highly procedural; that is, teachers provided students step-by-step instructions for how to interact with mathematical problems, as opposed to allowing for student explorations. (Procedural lessons were observed in all five academies.)

Design features of CMP – such as embedded assessments, opportunities for differentiation, and making mathematical connections – were not used on a regular basis to meet the learning needs of individual students.

- In 64% of mathematics lessons (n=15), differentiated instructional practices – by content, product or process – were not observed.
- In 67% of mathematics classes observed, teachers did not utilize questions that probed for deeper levels of student understanding.
- In 47% of mathematics classes observed, teachers did not incorporate prior knowledge by linking the knowledge within the current lesson to concepts that were taught in previous lessons.
- In 94% of mathematics lessons observed, student-led Summaries were not observed. As a result, students did not have an opportunity to present, question and reflect upon the mathematics that occurred during the lesson.

It is not clear that English language learners (ELL), special education students and mathematics enrichment students have equal access to the CMP instructional model.

- Use of CMP was observed in only three of the five lessons observed in ELL, special education and mathematics enrichment classrooms.
- Procedural, rather than conceptual, learning was emphasized in 60% (n=5) of these lessons.
- In focus groups, several teachers who work with these populations indicated cooperative groups were not used in their classroom, and that they believe procedural arithmetic and computation skills are more appropriate for their students than CMP collaborative problem-based approach to the learning of mathematics.

Recommendations

Increase time for CMP by minimizing, at the beginning of class, the amount of time spent on transitional activities.

Hire a full-time mathematics coach to work with both individuals and groups in order to help teachers:

- More fully utilize the CMP classroom workshop model and orchestrate student-led Summaries;
- Develop structures for paired and cooperative group work, and for student discourse;
- Analyze CMP lessons, both through video cases and peer observations; and,
- Interpret *Assistments* data and use the resulting information to affect instruction.

In order to improve the quality of instruction and student engagement in the learning process, give students greater responsibility during the Exploration and Summary components of the CMP model, so that students have increased opportunities to:

- Think about mathematical concepts;
- Engage with the mathematics in an investigative manner; and,

- Articulate their understanding, both in small groups and in whole-class presentations.

Ensure that CMP is being implemented across heterogeneous academies and classrooms to provide all students access to features as designed by the program, including:

- Enabling all students to become contributing members the mathematics classroom;
- Exposing students, in an atmosphere of acceptance and respect, to their peers' varied mathematical strengths and different ways of mathematical thinking;
- Supporting multiple models of representation and multiple pathways to solutions;
- Providing opportunities for peer-to-peer questioning and explanation during the Exploration segment of the lesson;
- Providing all students with opportunities for leadership through the student-led Summary; and,
- Engaging students of varying mathematical strengths in cooperative group work.

Ensure that all students – especially ELL, special education, mathematics enrichment students – have access to the high quality mathematics content and processes used in the CMP workshop model.

Align the content and instructional practices of mathematics enrichment with those of CMP.

2. Informing Practice with Data – Mathematics

Areas of Strength

Teachers are using data from a variety of sources to generate information about student achievement.

- Teachers are using summative data, such as MAP and MCAS, to determine school-wide ability grouping of students.
- In focus groups, teachers reported that class assignments were adjusted in November, based on recent external assessments and teacher observations.
- Teachers are using information from the *Assistments* software to assess student understanding of CMP.
- A part-time district-wide mathematics coach is helping teachers to interpret the *Assistments* data and use the resulting information to inform instructional practices.

Priority Areas for Improvement

Use of formative classroom assessments – such as probing questions, student discourse during group work and student-led presentations in order to differentiate instruction and/or adjust a lesson in progress – were not evident across classrooms.

- In 67% of mathematics classes observed, teachers did not utilize questions that probed for deeper levels of student understanding.
- In 60% of mathematics lessons observed, teachers did not anticipate or plan for student misconceptions.
- In 94% of the mathematics lessons observed, there were no student presentations during the CMP Summary.
- In 64% of mathematics lessons, differentiated instructional practices were not observed.

Recommendations

Increase use of CMP embedded formative assessments so that teachers may further:

- Assess student understanding and learning needs; and,
- Provide differentiated instruction.

3. Time for Teachers and Students

Areas of Strength

There is sufficient time for general instruction in ELA and mathematics.

- ELA: 55 minutes is the average block of instruction.
- Mathematics: 55 minutes is the average block of instruction.

The school has a variety of targeted academic programs and interventions that are available to improve both teaching and learning at the school.

- Students identified in need of additional assistance in reading, through assessments and teacher referrals, receive an additional period of reading instruction every day. Seventh grade students are supported through an additional reading class, whereas targeted reading instruction for 8th grade students is incorporated into the health class.
- The Salisbury Academy is specifically designed to address the needs of incoming students who exhibit extreme deficits in the area of mathematics and ELA. Fifty to sixty students receive targeted small-group instruction through the Wilson Reading system, while other students receive one-to-one individualized attention. This Academy also has smaller class sizes.
- *Assistments* – a computerized mathematics tutoring program and assessment system – is used to provide students with mathematics support and to provide teachers with information about student learning gaps.
- Before- and after-school tutoring is available in both ELA and mathematics four days a week to provide targeted assistance to students, based on MCAS scores.

There is dedicated time for teachers and school leaders to collaborate.

- As a result of new contract stipulations, some time has been provided for CPT within the academies. CPT occurs one to three times per week. Use of this time is determined by teachers.
- Discipline-based department meetings and faculty meetings both occur once a month.
- Department chairs meet monthly with school liaisons and other secondary department heads in the district to share best practices and to examine student work as part of the leadership institute.

Priority Areas for Improvement**Teachers do not have sufficient opportunities for structured, cohesive team-based planning to share strategies and to improve instructional practices within their respective academies or content area disciplines.**

- Teachers reported participating in CPT meetings several times per week. Due to scheduling restraints, however, this time is available only for 15 to 20 minutes per day.
- In focus groups, teachers indicated that there is no systematic approach for sharing and developing best practices school-wide or within academies. For example, CPT does not include a designated leader, a planned agenda or meeting minutes that serve to structure or record the team's work.
- Mathematics teachers noted a need and a desire to communicate more frequently with their colleagues in order to deepen their own understanding of the mathematics they were teaching, to plan lessons and to share concerns and strategies related to teaching CMP.
- Classroom observations indicated evidence of both exemplary instruction and poor instruction across academies and content areas (ELA and mathematics).
- In focus groups, teachers indicated that informal sharing, communications and peer observations often occurred among academy colleagues. However, this does not provide the necessary structure or focus to improve instructional practices.

Recommendations**Explore ways to redistribute the school day schedule to ensure more frequent, structured and discipline-specific opportunities for teachers to plan together. Increase focus on improving teaching and learning by:**

- Incorporating use of an agenda set by the faculty and administration, with minutes and regular report outs, to focus on systematizing school-wide practices and strategies that align with identified improvement targets;
- Building a common vocabulary to talk about instructional practices;
- Developing teachers' pedagogical content knowledge, understanding and use of language specific to ELA and mathematics by increasing time for discipline-specific CPT – for example, strengthening teachers' understanding of the "big ideas" contained in CMP; and,

- Sharing plans for lesson development, as well as implementation and assessment strategies to assist staff in working toward uniform, high expectations for student learning and performance.

4. Leadership for Instructional Improvement – DISTRICT

Areas of Strength

The district provides sufficient support to the school, including allocation of staff and funding support for school programs.

- Both in interviews and in the school leadership report, the principal reported that the school has received excellent guidance, planning, materials and support from various WPS district departments.
- The school has three assistant principals (AP), who are each responsible for different tasks.
- There are two mathematics coaches, who provide support to the school on a consulting basis.
 - One coach is funded through the Comprehensive School Reform (CSR) grant to provide assistance with CMP implementation four times per year.
 - The second coach works with teachers one day a week to align CMP and the *Assistments* program.
- Extended-day programs are provided through 21st Century School funding, which includes focused MCAS practice and homework support.

Priority Areas for Improvement

ELA teachers do not have the structure of a common curriculum to provide clear expectations for student performance or an avenue for consistent communication about classroom practices and instructional strategies.

- In focus groups, many teachers referenced the Massachusetts Curriculum Frameworks, the WPS curriculum materials and the McDougal Littell text as resources for planning ELA instruction.
- There are no clear documents, however, to guide teachers in how to pace, sequence and organize the content presented in the Massachusetts Curriculum Frameworks or the WPS curriculum objectives to ensure effective and consistent instruction at the middle school level – that is, content to be introduced, practiced and mastered across classrooms and grade levels.
- Curriculum materials do not provide benchmarks or student exemplars to ensure a common understanding of student performance targets (i.e., what students should know and be able to do).

It is not clear that adequate instructional materials have been provided to support all programs at the school.

- School leadership reported that texts available for ELA and other content areas are insufficient. (Mathematics is the exception.) Some teachers, for example, have only one set of materials that all classes/students share.
- In focus groups, teachers reported that materials for some enrichment courses are either out of date or not always available to meet the needs of all students.

District leaders have not yet supported the development of a common vocabulary to talk about instruction and to ensure uniform understanding of instructional concepts.

- There is no common language used throughout the school or the district to talk about instructional strategies.
- In focus group discussions, teachers did not demonstrate a common understanding of differentiated approaches to instruction.
- Classroom observations indicated an inconsistent quality of instructional practices across academies and content areas (ELA and mathematics).
- There is no district-level walk-through protocol in ELA or reading.

Recommendations

Provide a well-developed curriculum guide for 7th and 8th grade ELA that includes a conceptual and organizational framework for how to approach discrete learning objectives at each grade level. Suggested for inclusion in this guide:

- An effective scope and sequence for instruction, student exemplars and specification of which curriculum objectives will be introduced, practiced and mastered in each grade;
- Examples of relevant instructional strategies and key instructional vocabulary;
- Targets/benchmarks to identify student performance levels in ELA; and,
- Student work exemplars and evaluation rubrics to build common understanding among teachers about what constitutes high-level work in ELA.

In order to move curriculum implementation to the next level, provide clear expectations and a well-developed plan to improve the quality of classroom instruction by:

- Building a common language that can be used to talk about instruction throughout the school and the district, including a shared understanding of what high quality instruction looks like in the classroom;
- Offering professional development on specific teaching strategies and approaches to be implemented in the classroom;
- Ensuring that informal observation protocols include elements that specifically target instructional practices in need of improvement; and,
- Providing guided practice and support to teachers through embedded coaching. Focus on one or two strategies at a time until teachers master the practice.

Work collaboratively with the principal to expand and prioritize focus at the school on teaching and learning by:

- Ensuring the school has the necessary resources in place (human and material) to effectively support teaching and learning at the classroom level;
- Revisiting the current use of school administrators – specifically, assistant principals – to maximize support to teaching and learning; and,
- Ensuring that academy assignments provide students a full range of learning opportunities and maximum access to the district curriculum.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

The school has put a number of programs and initiatives in place to support the student experience and improve community relationships.

- The school utilizes the Positive Behavioral Intervention and Supports (PBIS) program to establish clear behavioral expectations for students.
- A school adjustment counselor – who is a certified a therapist, mediator and crisis interventionist – works with students on a regular basis to support their social and emotional needs. Therapists from a community organization also work with the students in support of these efforts.
- The school has an advisee/advisor system that provides a student-teacher mentoring relationship through small groups in place. This opportunity is provided to all students.
- Students with special needs are supported through use of Functional Behavior Interventions (FBIs) and home assessments.
- An assistant principal works with the superintendent and the chief of police, monitoring activities of neighborhood gangs in order to forestall negative activities in the school.
- The South Worcester Neighborhood association has been active in the school, working with new citizens to foster a feeling of acceptance in the community.
- In focus groups, the faculty recognized the principal as an initiator of strong relationships within the school community, often attending parent and neighborhood meetings, gathering students in assemblies and engaging faculty in social gatherings (e.g., holiday reception).

Leadership has implemented several initiatives in an effort to support the school's academic program and establish consistent, school-wide practices by:

- Seeking funding and support for mathematics instruction through use of two coaches who are at the school on a part-time, consultative basis;

- Instituting a classroom observation tool that specifically addresses instructional practices (e.g. effective use of wait time, clearly explained instructional objectives, use of ongoing assessment and feedback). The criteria from the new observation tool have been placed on the palm pilot so that it can be used for walk-throughs;
- Implementing a common lesson plan format that specifically includes sections to address instructional practice (e.g., methodology, student activity, teacher activity) as well as modifications for special education and ELL students; and,
- Reorganizing the school's five academies in an effort to provide students with targeted instruction provided in smaller learning communities.

Priority Areas for Improvement

Currently, there is no depth and breadth of instructional leadership to oversee and support necessary improvements in teaching and learning in a school of this size.

- Of the school's three assistant principals, only one assistant principal (AP) described the primary role as curriculum and instruction. The other two APs are responsible for tasks that are not central to teaching and learning (e.g., coverage for teachers, transportation, discipline, ordering and distributing supplies and maintaining inventory).
- Although tools to support instruction are in development or in early phases of implementation (e.g., observation tool, lesson plans), there is not a clear plan for how these tools will be systematically put into practice and monitored to ensure impact on the quality of instruction.
- Individuals with instruction-based responsibilities do not have a clear understanding or common language to talk about practices related to teaching and learning, including: school administrators, the ILT and department heads and teachers.
- In focus groups, teacher did not use common language to describe instructional practices or curriculum implementation.

Recommendations

Revisit the use of school personnel to maximize instructional leadership at the school by:

- Re-assessing the multitude of administrative duties assigned to assistant principals. Consider how their time could be better used to support teaching and learning;
- Strengthening use of the skills and knowledge that some department heads possess to foster the development of high quality instruction and curriculum implementation in their respective content areas;
- Providing increased leadership to the ILT to create focus on developing consistent quality instructional practice across all classrooms; and,
- Identifying teachers with strong instructional skill sets. Move these individuals into teacher-leader positions (e.g., the ILT).

Build upon some of the foundations already in place at the school to continue to improve the quality of instructional practices by:

- Working to develop a common language and understanding that surrounds instruction and classroom practice;
- Using exemplary teachers as instructional resources. Consider the strengths of all individuals and delegate/distribute tasks accordingly;
- Utilizing the expertise of ELL and special education staff members who have specific training in differentiated instructional strategies to elicit communications and increase support for classroom practices school-wide. One way to do this might be through use inclusive co-teaching models;
- Providing time for teachers to discuss and practice newly learned strategies, which includes classroom-based support (e.g., embedded coaching); and,
- Ensuring teachers are presented with meaningful feedback on instructional practice.

CHANDLER ELEMENTARY COMMUNITY SCHOOL

November 28 - 30, 2006

1. Standards-based Teaching and Learning – English Language Arts

Areas of Strength

The majority of teachers are providing classroom environments that are safe and encouraging for student risk taking and participation in learning.

- In 56% of English language arts (ELA) lessons observed (n=16), teachers and students appeared to feel safe and willing to take risks in their learning. For example, students contributed ideas during lessons and were observed helping one another.
- Nearly 70% of ELA classes observed contributed to a positive learning environment through attractive displays of student work and clearly organized classroom learning materials.
- In many classes, observers noted teachers supporting struggling students, providing reminders of classroom rules and prompting student behavior with gentle corrections.
- Teachers were observed providing many opportunities for student participation.

There are pockets of instructional excellence that can be used to further develop teaching and learning at the school.

- Classroom observers noted that approximately 50% of all ELA lessons (n=16) demonstrated many aspects of strong instructional practice.
- In 81% of observed ELA lessons (n=16), teachers – when introducing new concepts – activated students' prior knowledge to connect lessons to their daily life contexts. For example, classroom observers noted that teachers often connected new vocabulary to students' daily contexts through local references, pictures, drawings or dramatic gestures/activities.
- All school resources and personnel appear committed to providing instructional support to students (ELL, special education, literacy and other tutors).

Priority Areas for Improvement

In most classrooms, teachers are not making learning goals explicit through lesson plans, lesson introductions or summaries, or in student feedback.

- In 94% of ELA lessons observed (n=16), teachers did not explain lesson objectives to students at the start or close of lessons, leaving learners to intuit the purpose and goals of lessons.
- In teacher lesson plans, objectives were often stated as activities (e.g., “students will do...”) rather than as learning objectives (e.g., “students will learn...”) that reflect the Massachusetts Curriculum Frameworks.
- In 88% of ELA lessons observed, teachers did not convey objectives through the use of exemplars. Teachers, for example, did not show or display models of successful student work or provide rubrics detailing criteria for excellent work.
- In 70% of lessons observed, teachers did not provide direct feedback to students orally or through comments on student work to enable independent revisions and improvement.

- Learning goals were not made explicit during ELA lessons through use of tools, such as rubrics. Furthermore, rubrics were not observed with provided student work samples, nor were they described during teacher focus groups.

In many ELA lessons, poor pacing, flow, transitions, and clarity of purpose interfered with the coherence of instructional delivery.

- In 44% of ELA observations (n=16), lessons were not well-planned or organized. Some teachers switched ELA activities during the literacy block without providing connections or transitional explanation to students.
- In 56% of lessons observed, time was not used efficiently or purposefully. For example, some teachers interrupted the flow of instruction by having students distribute Houghton Mifflin (HM) anthologies in the midst of instruction, rather than ensuring that students had the necessary supplies before beginning instruction. Observers also noted tediously slow instructional pacing at times.

Teachers do not appear to be providing systematic instruction in all components of ELA.

- In most ELA lessons observed (n=16), there was a heavy focus on reading comprehension. Lessons that centered on oral language, phonemic awareness, phonics, vocabulary, fluency and writing were infrequently observed.
- Teachers in focus groups indicated using approximately 20-30 minutes daily, on average, for writing instruction; most indicated they felt this was not sufficient for student improvement.
- Various components of HM support materials (e.g., intervention and English language learners [ELL] handbooks) were not in evidence during classroom observations.
- During 16 ELA lessons, writing instruction was observed in only one tutoring session with three students.

Many teachers demonstrated low expectations for student learning.

- In 70% of classroom lessons observed (n=16), teachers did not use probing questions to reveal and extend student learning. Instead, teachers often prompted and accepted one- or two-word answers, indicated correct/incorrect, then moved on.
- In 50% of observed lessons, students were not asked to support and defend their reasoning, nor were they engaged in questioning the content or each other.
- In teacher focus groups, teachers placed blame on students' home situations and sometimes suggested students seemed incapable of high levels of learning. As an example, one teacher indicated she did not engage students in cooperative work because students "...didn't know the answers the first time; why would they know it with someone else?" Instead, corrections on student work were provided and students were asked to fix their responses accordingly.
- In 88% of lessons observed, students were not engaged in conceptual understanding, real-world applications or problem-solving challenges. Instead, observers often noted student worksheets and low-level question-and-response interactions.

Recommendations

Reallocate time for comprehensive ELA instruction to balance comprehension instruction with instruction in phonemic awareness, phonics, fluency, and writing instruction.

- Engage staff in coordinating and implementing assessments to track ELA progress, including the use of rubrics for assessing writing in different genres.
- Monitor attention to comprehensive ELA instruction through administrative lesson plan review and feedback.

Improve lesson effectiveness and coherence by:

- Providing professional development (PD) – e.g., Skillful Teacher or similar PD – to ensure fine-tuning of instructional practice for teachers identified as in need according to supervision and evaluation and on a voluntary basis;
- Instituting the district’s required lesson plan template to ensure attention to Massachusetts Curriculum Frameworks and School Improvement Plan (SIP) objectives, differentiated strategies, formative assessments and student exemplars;
- Including supervisory review of teacher feedback on student work to ensure feedback is specific and that it advances the related lesson objectives; and,
- Encouraging and monitoring teachers’ use of Houghton Mifflin/Making Meaning teachers’ manuals during instruction to ensure specific supports with higher-level questioning and ELL and differentiated instructional strategies.

2. Informing Practice with Data – English Language Arts

Areas of Strength

All teachers and administrators use data periodically to place students in small groups for instruction.

- Measures of Academic Progress (MAP), Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and the Diagnostic Reading Assessment (DRA) are administered three to four times annually and students are grouped for instruction according to results.
- In focus groups, teachers reported reviewing these data and regrouping small numbers of students at each assessment period.

Priority Areas for Improvement

The majority of teachers do not report using formative assessments to differentiate or redirect instruction *within* groups.

- In 70% of observed ELA lessons (n=16), teachers did not use formative assessments to gauge student understanding during lessons and to redirect the flow of instruction according to observations/results.
- Although teachers in focus groups described some forms of differentiation, in 75% of observed ELA lessons, teachers did not demonstrate differentiated instruction by tailoring the content, process or product to individual student needs.
- Often, those classrooms that did not differentiate instruction also did not use formative assessments. Additionally, classroom observers noted frequent large group instruction. This suggests that teachers are not able to differentiate instruction because they are overlooking gathering information about individual student understanding of delivered instruction.
- While opportunities for student regrouping occurred periodically, teachers reported that, in actuality, few students changed groups over time.

Recommendations

Monitor and support teachers' use of data to develop differentiated small group lessons by:

- Providing structured common planning time at least one hour per week with a focus on how to use MAP data and other formative assessments to plan differentiated instructional approaches for small groups of learners;
- Providing grade-level workshops on differentiated instruction, using the support of video-based professional development tools (for example, those provided through Association for Supervision and Curriculum Development [ASCD]) to provide clear exemplars of differentiation in the classroom/instructional context;
- Revising lesson plan templates to provide attention to, and space for, differentiated small group lesson planning; provide supervisory feedback on the degree and appropriateness of planned differentiation; and,
- Providing timely and specific supervisory feedback on differentiated small group lesson observations.

1. Standards-based Teaching and Learning – Mathematics*Areas of Strength*

Teachers are delivering well-organized lessons that are clearly based on the Everyday Mathematics (EDM) program.

- In 69% of mathematics classes observed (n=13), an EDM lesson objective was posted and/or related activities were clearly explained to students.
- Classroom observers noted that mathematics lessons consistently followed step-by-step procedures that were aligned with the EDM program.
- In 79% of classes observed (n=14), teachers used mathematical concepts from previous lessons to activate students' prior knowledge, which requires knowledge of the EDM program.
- In 64% of mathematics lessons observed, time was used efficiently to accomplish the lesson objectives. Observers noted that this was often a result of careful teacher preparation and planning.
- In focus groups, teachers reported that EDM professional development and informal dialogue with colleagues (e.g., during lunch, after school) has contributed to effective planning and implementation of EDM lessons.

The classroom environment is safe, attractive and possesses a range of mathematical resources that are used to engage and assist students in accessing lesson content.

- In 93% of mathematics lessons observed, students were willing to take risks. There was frequent student participation. When incorrect answers were given, students continued to participate in the lesson.
- In 80% of mathematics lessons, observers noted that classrooms were well-organized, displayed student work and contained a range of supplemental resources – e.g., number lines, hundreds tables and other mathematical charts.
- In 79% of mathematics classes observed, manipulatives (e.g., base 10 cubes, fraction sticks, EDM games) were used to assist students in accessing mathematics concepts and increase engagement in the learning process.
- In 79% of mathematics lessons observed, students participated in the lesson activity. Classroom observers noted that students were attentive and respectful to teachers and peers. There was little evidence of inappropriate behavior.

Priority Areas for Improvement

Implementation of the EDM program has yet to move from the procedural level to the conceptual level in most mathematics classes. This limits student opportunities to more deeply explore lesson content.

- In 64% of mathematics classes observed (n=14), teachers focused on the step-by-step procedures outlined in EDM (i.e., this is *how...*). Opportunities were not provided for students to explore mathematical concepts and reasoning (i.e., *why...*). Instead, teachers

directed students to the correct process or answer, opposed to allowing them to initiate this process.

- In 57% of mathematics classes observed, teachers did not anticipate student misconceptions to provide teachable moments or to promote increased learning opportunities.
- In 65% of mathematics classes observed, students were not provided feedback to encourage individual responsibility in the learning process. More frequently, teachers provided students with correction procedures.
- Across classroom observations, there were limited opportunities for student to collaborate and dialogue with the peers, which is critical to the exploration of mathematics concepts.

There is little evidence of differentiated instruction within the classroom.

- In 70% of mathematics classes observed, there was little evidence of differentiated instruction to address the varied learning styles and/or student achievement levels. Although struggling students receive instruction in groups outside the classroom, observers noted significant variation in student's mathematical abilities within the regular classroom. For example, some students are easily completing calculations without supporting materials, while other students must count (e.g., dots, cubes) in order to add.
- Learning centers, which inherently provide opportunities for differentiation, were not adjusted to meet the varied needs of student learners. Most often, all students were working on the same task and little, focused instruction and direction was provided.
- In 79% of mathematics classes observed, probing questions were not incorporated into the lesson to challenge students or deepen understanding of the content.

Activities/learning tasks were not explicitly tied to the Massachusetts Curriculum Frameworks.

- In 79% of mathematics lessons observed, teachers did not explicitly incorporate the Massachusetts Curriculum Frameworks. While the Framework was listed in some classrooms, teachers did not ensure that students understood what they are expected to know and be able to do according to state standards.
- Few lessons plans reviewed by the fact-finding team specifically referenced the Massachusetts Curriculum Frameworks.

The Mathematics Intervention Teacher (MIT) does not have a background in mathematics or mathematics education.

Although the school is slated to receive mathematics support via personnel provided by a Comprehensive School Reform (CSR) grant, this has not yet occurred at the school this year.

Recommendations

Incorporate probing and higher-order questions to increase the effectiveness of EDM lessons. This will improve teaching and student learning by:

- Moving teachers from the procedural (e.g., step-by-step, this is how to do it), to the conceptual (e.g., Why did I do this? What units of measurement would be appropriate?);
- Providing teachers with increased insight on levels of student understanding that can help inform instructional planning (differentiation) and implementation; and,
- Offering students increased opportunities to think about (and talk about) learning, including its processes.

Provide focused training and support to increase use and ensure quality of differentiated instructional practices.

- Offer professional development on specific differentiated approaches to teaching and related strategies. Focus on one or two strategies at a time until teachers master the practice. Consider beginning with use of higher-order questions.
- Provide guided practice and support to teachers. Consider embedded coaching.
- Ensure teachers are presented with meaningful feedback on instructional practice. Provide feedback with increased frequency as new strategies are learned.

Ensure the Massachusetts Curriculum Frameworks are presented and explicitly explained to students.

2. Informing Practice with Data – Mathematics

Areas of Strength

Teachers are using MAP data to group students for instruction.

- In focus groups, teachers reported reviewing MAP data and then to groups students based on common areas in need of improvement in mathematics.
- School leaders indicated that teachers are enthusiastic about the fact that this data source is now available.

In more than half of the lessons observed, teachers are using formative assessments to take the pulse of the class. That is, assess the average level of student understanding.

- In 57% of mathematics classes observed, teachers used formative assessments (e.g., informal observations, notebook checks, recall questions) primarily to check for correct and incorrect students responses.
- Students received feedback on the accuracy of their work and/or responses in these classes.

Priority Areas for Improvement

Formative assessments lacked the depth and rigor to assess students' conceptual understanding.

- Most teacher questions elicited one- or two-word answers and were not followed by requests for explanations (e.g., Tell me about how you got that answer). While assessment of correct/incorrect responses is occurring, the reasons for student responses are not being explored.
- In 79% of mathematics classes observed, probing questions were not incorporated into the lesson to challenge students or to deepen understanding of the content.

Recommendations

Increase the quality and effectiveness of formative assessments to inform and differentiate instruction by:

- Moving beyond factual recall and short-answer questions to include greater use of higher-order and probing questions;
- Increasing opportunities for students to explain their reasoning and to self correct errors;
- Providing embedded support and professional development on the use of formative assessments, followed by opportunities for teachers to practice newly learned strategies; and,
- Providing timely and specific supervisory feedback on use of formative assessments and practices to differentiate instruction within the lesson.

3. Time for Teachers and Students

Areas of Strength

There is sufficient time allowed for general instruction in ELA and mathematics at.

- ELA: 120 minutes is the daily instructional time.
- Mathematics: 90 minutes daily instructional time.

The school provides enrichment and academic support programs for students identified as at-risk students.

- The after-school program supports students identified as at-risk students through project-based curricula four times a week. There is an enrichment component focused on reading/ELA, mathematics, science, social studies, art and music, as well as computer education.
- A summer program that focuses on Massachusetts Comprehensive Assessment System (MCAS) practice and other academic enrichment activities is offered for four weeks. This program also includes an outreach component.

- Special education students receive additional targeted intervention through the HM three-tier model.

Priority Areas for Improvement

Common planning time (CPT) is not built into the school day schedule to provide opportunities for grade level teachers to share strategies and plan lessons.

- Although some teachers have preparatory periods in common, they are not required to meet for planning and sharing of instructional practice.
- In focus groups, teachers reported not having enough planning time with grade level colleagues. One teacher stated, “We really don’t have the time to put our heads together.”
- In focus groups, some teachers indicated strong interest in peer observations – a potential activity to stimulate collaborative inquiry during CPT. One teacher stated, “I would love to have a day just to observe another teacher at my grade level.”

Recommendations

Institute structured and coherent weekly common planning times. Consider planning time that uses grade-level clusters (i.e., K-2, 3-4, and 5-6) and that provides a predictable series of monthly CPT activities. This structure could include, for example:

- Week 1: Teachers collaborate in analyzing data within their grade level clusters;
- Week 2: Teachers collaborate in designing a differentiated lesson and/or rubric for evaluating student work in response to key data identified during Week 1;
- Week 3: Teachers debrief about peer observations of lesson designed during Week 2;
- Week 4: Teachers assess a selected subgroup of student work from lessons conducted during Week 3; and,
- Maintain meeting agendas and minutes for common planning time in a grade level cluster notebook to monitor activities.

4. Leadership for Instructional Improvement – DISTRICT

Areas of Strength

The district provides sufficient staff and time on site to support implementation of the school programs.

- The district specifically selected the principal for his strength in organization and management, which was seen as particularly needed for this school to move forward.
- The district has provided an assistant principal for additional support, although student enrollment does not meet established district criterion for this additional position.

- A No Child Left Behind Implementation Teacher (NCLBIT) and MIT are on site full time to support school programs.
- The district provides content area liaisons, who are available upon request to model lessons and to coach teaching staff in their respective areas.
- District leaders regularly visit the school to meet with the principal and conduct walk-throughs.

The district has provided a range of professional development offerings to support the school and its programs, including:

- MAP training is helping teachers to use data to more effectively group students for instruction and for work on specific skills;
- Massachusetts Mathematics Institute (MMI) training deepens teachers' understanding of mathematics content;
- Further training via the NCLBIT is scheduled for later in the year to support implementation of HM and Making Meaning (MM) ELA/reading programs; and,
- Principal's training has been in MMI and the Skillful Administrator.

The district is in the process of finalizing an Extended Learning Time grant from the Department of Education that, beginning in September 2007, will increase the length of the school day to provide more time on learning.

Priority Areas for Improvement

There is no clear plan for how the district will improve instructional practice at the school to take implementation of ELA programs (HM and MM) to the next level.

- In focus group discussions with both teachers and leadership, there was minimal evidence of a common language regarding instructional practice.
- The E-walk protocol, specifically for HM, does not provide for detailed observations of instructional practice.
- In focus groups, teachers reported that, following E-walks, they did not receive timely feedback about instruction.
- There are no clearly-articulated benchmarks that establish expectations for levels of improvement that teachers will make in their instructional practice.

Recommendations

To move implementation of the ELA curricula to the next level, support school leadership to focus energy toward development of high quality classroom instruction by:

- Building a common language that can be used to discuss instructional practice throughout the district and school. Create a shared vision and understanding about what high quality instruction looks like in the classroom;

- Selecting strategies that are in need of improvement and providing training to teaching staff and instructional leadership. Provide guided practice and support to teachers through embedded coaching. Focus on one or two strategies at a time until teachers master the practice;
- Providing professional development activities with clear expectations and goals for follow-up (through embedded support). Benchmarks for improving instruction are most likely ways to ensure carry-through in the classrooms; and,
- Revising E-walk protocols to include a specific focus on instructional strategies, especially those practices in need of improvement.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

There are many resources in place at the school that can be used to improve instructional practices and support the academic program.

- There are pockets of good instructional practice at the school that can be used as exemplars.
- Special education teachers spoke fluently about methods for differentiating instruction and, further, these teachers have begun to share and communicate practices with their regular education colleagues.
- The assistant principal, the NCLBIT and the MIT are resources for supporting teachers in improving instructional practice.

The principal has promoted positive changes in the culture of the school.

- In focus groups, teachers reported positive changes in the school's culture as a result of the principal's leadership in creating and managing an orderly school.
- A welcoming and caring and student-centered school environment for students, parents and staff has been established at the school.
- The principal and parent liaison are reaching out to the community to involve parents (e.g., General Educational Development [GED] evening classes, making games and materials for classrooms).

Priority Areas for Improvement

It is not clear that the model for delivering both the ELA and mathematics curricula are providing equal access and opportunity to ensure high expectations for all students – specifically, those students with some of the greatest academic needs.

- Special education and ELL students are pulled out of their homerooms for up to four hours a day for instruction in the core content areas. This limits opportunities for “typical” peer models.

- With the exception of special education students being served in substantially separate programs, individuals providing pull-out/intervention special education services have not been specifically trained to be responsible for teaching the entire mathematics and ELA curricula. These individuals are providing instruction for up to four hours per day.
- Training provided for ELL teachers has focused on language acquisition, not instruction of reading, writing and mathematics curricula.
- In focus groups, most special education and ELL teachers reported minimal changes in student groupings within the ELA and mathematics periods since the beginning of the school year. A small number of ELL students who had performed well in mathematics were changed to another mathematics group.
- Literacy and intervention tutors, who provide a range of instructional services to struggling students each morning, are not required to meet the same standards as regular classroom teachers. For example, tutors participate in PD offerings at will; limited preparation time is built into their daily schedules; the formal evaluation process is different; and, the feedback loop is different than that provided to regular classroom teachers.
- There is no mandatory scheduled time for intervention tutors to meet with teachers or to plan lessons to ensure consistent delivery of the curricula, instruction or expectations for student learning.

A system for providing regular, consistent support and feedback to teachers about their instructional practice is not in place.

- Agendas for monthly faculty meetings reviewed by the fact-finding team are devoted to administrative issues. There is no evidence that dedicated time is spent collaborating and providing feedback on instructional practices.
- In focus groups and interviews, the leadership team indicated attention has been focused on other pressing issues (e.g., MAP training, classroom management, the Student Support Process) that have consumed a lot of time. The focus has yet to shift to instructional practice.
- E-walk data are not providing meaningful feedback to teachers on instructional practice.

Lesson plans currently in use are inadequate. Plans are underway to create and use a common template that holds more promise.

- Most lesson plans reviewed by the fact-finding team followed a weekly plan book format. There was no clear structure, standards-based student learning objectives and little or no reference to instructional methods.
- There is currently not a provision for written supervisory feedback, particularly regarding instructional methodology on teacher lesson plans.
- The district lesson plan format – or a variation – is not currently being used.

Recommendations

Rethink the model for delivering the curriculum to special education, ELL and at-risk students. Include both whole group and flexible group instruction by:

- Including all students in large overview lessons (e.g., Shared Reading) and presentation of lessons content to provide opportunities for modeling and increased discussion;
- Implementing a co-teaching model using special education, ELL and other support personnel to provide increased learning opportunities for all students; and,
- Following whole group sessions with already established small groups for guided reading, writing and skills support and practice.

Redirect resources to focus more specifically on practices that directly support high expectations for teaching and learning by:

- Ensuring that instructional practices are the primary focus of the leadership team;
- Developing a lesson plan template that includes – among other important pieces – space for teachers to note planned instructional strategies. Provide feedback teacher’s lesson plans;
- Developing and implementing a process for giving teachers timely feedback on classroom practices, focusing particularly on instructional strategies; and,
- Creating ways to schedule common planning time (see Recommendations section under Time for Teachers and Students).

CHANDLER MAGNET SCHOOL

December 1, 4 - 5, 2006

1. Standards-based Teaching and Learning – English Language Arts

Areas of Strength

Teachers are using the core English language arts (ELA) program to provide instruction in all skill areas and have the necessary support materials for full implementation.

- Core instructional materials from Houghton Mifflin (HM) and student work samples indicate that students receive instruction in fluency; vocabulary; basic comprehension; and, word, sentence and paragraph writing.
- Classroom observations (n=16) noted use of HM for lessons in story structure, cause and effect, vocabulary, grammar and usage, spelling, phonemic awareness, oral language and presentation and choral reading.
- Classroom observations noted adequate resources to support a range of ELA skills, such as HM student anthologies, workbooks and supplementary materials; writing journals; preprinted charts and graphic organizers; computers; and, student white boards. Observers also noted many classrooms with vocabulary word walls, listening centers and/or a variety of literacy activity centers.

Students appeared to feel comfortable, safe and engaged in learning activities.

- In 100% of lessons observed (n=16), students appeared to feel safe and willing to take risks. In some classrooms, for example, students were observed helping one another and/or presenting their work to each other.
- In 80% of lessons observed, the appearance and physical organization of the classroom contributed to a positive learning environment. Classrooms were typically well-organized and included clearly-labeled learning centers that were appropriate for student learning.
- In 80% of lessons observed, students were actively engaged and behavior was appropriate to the learning activities. Students appeared eager to share and respond to teacher questions.
- Classroom observers noted positive effects from the school-wide Positive Behavior Intervention and Support (PBIS) program. Students sometimes approached classroom observers to share their PBIS results and expressed pride in their accomplishments.

Teachers connected lessons with students' prior knowledge and classroom experiences.

- In 80% of lessons observed (n=16), teachers activated or incorporated students' prior knowledge as new concepts were introduced. For example, one teacher used a "K-W-L" chart to note students' prior knowledge about a social studies topic and to generate questions they had prior to reading an article. Teachers were also observed activating students' prior knowledge from a previous lesson before entering the current lesson.

Adults in the school were directly supporting student learning.

- Special education, English language learners (ELL), English Language Arts Intervention Teachers (ELAIT) provided direct support for small group instruction – both in and out of the regular education classroom.
- In focus groups, some teachers noted – during lessons – the use of instructional assistants.

- Two teachers reported daily support from a parent/grandparent volunteer in the classroom.
- The principal noted periodic ELA support from Worcester State College education students.

Priority Areas for Improvement

Many teachers do not show evidence of holding high expectations for student learning in ELA.

- In 69% of lessons observed (n=16), students were not engaged in examining their thinking by questioning their understanding of the presented content or by either supporting or defending their reasoning. For example, students were often observed providing brief responses to simple, low-level questions from teachers and were less often engaged in substantive and probing discussions of material being presented.
- In 56% of lessons observed, learning objectives were noted in plan books or visually in the classroom. These objectives, however, were not explained to students, leaving learners to intuit the purpose of their class activities.
- In 38% of lessons observed, exemplars to demonstrate expectations for student achievement were not provided. For example, teachers did not provide samples of successful student work or use rubrics within instruction to clarify or demonstrate high learning expectations.
- In 32% of lessons observed, students were not engaged in the content of lessons at varied levels, including skill building, conceptual understanding, strategy development and real-world applications. Higher levels of engagement – e.g., analysis, synthesis, debate and discussion – were not observed in these classrooms.

The school lacks systematic ongoing expectations and practices for providing feedback on student or teacher performance.

- In 50% of lessons observed, students were not engaged in and responsible for examining their work in response to directive feedback from teachers or peers that enables revision and improvement.
- In samples of student work reviewed by the fact-finding team, teachers did not provide specific suggestions for improved performance on student writing or worksheets. Rubrics were not attached to student work samples, nor noted within any observed lessons.
- In focus groups, teachers noted that the principal conducted ELA E-walks. They stated, however, that – as a result of these walk-throughs, they did not receive individual feedback on teaching practices.
- In focus groups, teachers indicated that they received feedback on the quality of their classroom instruction only during the formal evaluation cycle. Furthermore, teachers indicated they had not engaged in peer observations or assistance, other than informal sharing of successful lessons during brief lunch or before-school interactions.

Recommendations

Establish a culture of continuous improvement for both teachers and students through use of regular, formalized cycles of feedback and revision.

- Establish a predictable and routine schedule for walk-throughs, including practices to be observed.
- Ensure that the protocols (i.e., E-walk, rubrics) provide timely and meaningful feedback to teachers on individual practices, citing both strengths and areas for improvement;
- Provide bi-weekly supervisory review of teachers' evaluative comments on student work, in conjunction with class lesson plans, to ensure that students are receiving specific feedback that advances the original instructional objectives.
- Create accountability systems to ensure that student and teacher work is improved, based on performance feedback.

Focus ELA instructional improvement efforts on engaging high levels of student thinking by:

- Utilizing instructional strength at each grade level by identifying classrooms that model high expectations for student learning and providing opportunity for peer observations;
- Providing professional development in teacher questioning and instructional strategies for stimulating students' higher-order thinking;
- Providing classroom-embedded coaching from the No Child Left Behind Implementation Teacher (NCLBIT) in literacy block organization, implementation and instruction;
- Ensuring regular grade-level team times during the school day to work with the NCLBIT on differentiated lesson and center development, identification of student exemplars and instructional strategies that enhance students' higher level thinking skills; and,
- Providing teachers with bi-weekly instructional feedback, based on E-walk or other protocols specifically focused on higher-order thinking strategies.

2. Informing Practice with Data – English Language Arts

Areas of Strength

Teachers indicated they are working with data to assess student needs and to determine student groupings.

- In focus groups, teachers indicated they used Measures of Academic Progress (MAP), Developmental Reading Assessment (DRA), and Dynamic Indicators of Basic Early Literacy Skills (DIBELS) data for understanding student skills and needs.
- In focus groups, teachers indicated they have taken, or are receiving, MAP training and have attended school-based monthly meetings on using data and assessments.

- Classrooms were arranged to provide small group instruction. In many classrooms, for example, observers noted center areas, desks in clusters and reading corners.

Priority Areas for Improvement

Classroom observations indicated that teachers are at varying stages of using data to inform small group instruction.

- In focus groups, several teachers indicated feeling either overwhelmed with computer-generated data reports or in need of hard copies for easier data review.
- In focus groups, several teachers indicated they did not know how to address student needs identified through data review, when these needs did not coincide with the HM scope and sequence.
- Teachers did not reference Massachusetts Comprehensive Assessment System (MCAS) data when describing how they identify or assess differing student needs.
- In 44% of lessons observed (n=16), teachers were not observed using multiple types of ongoing formative assessment to gauge student understanding or to redirect the course of instruction. In these classrooms, for example, teachers did not ask probing questions, assign written reflections on learning or interact individually with students during independent work.

Many teachers are analyzing data to determine students' reading levels but are not yet using data to determine the specific skills needed by individual students within groups.

- In focus groups, teachers indicated they used MAP and reading (DIBELS, DRA) data to create small groups for instruction. In 37% of lessons (n=16), however, differentiation of instruction and multiple grouping strategies were not observed and students were not engaged in learning content in varied ways. In these classrooms, students were often observed sitting in varied configurations or classroom areas but working on the same tasks with the same levels and types of support. Furthermore, different partner, small group and teacher-student configurations were not used to advance differing segments of the instructional plan.
- In 83% of observed *undifferentiated* lessons (6 out of 16 lessons observed), teachers did not use multiple types of diagnostic and ongoing formative assessment (i.e., student questioning, written reflections on learning, brief quizzes or other informal assessment tasks), suggesting that teachers do not have the instructional practices in place to assess student understanding at the moment, then using this information to immediately redirect their instruction. For example, teachers were not observed checking for student understanding during these lessons by asking students for further explanation, then redirecting instruction to address their misconceptions.

Recommendations

Conduct monthly meetings between grade-level or individual teachers and data leader to monitor and reassess the needs of students and to re-form, based on changing student needs, small flexible groups.

Revise and implement the differentiated lesson plan template to make specific use of student data, specifically noting:

- Grade-specific focus skills (i.e., phonemic awareness, phonics, fluency, comprehension, vocabulary);
- Large group instructional focus;
- Objectives and instructional strategies for leveled guided reading groups;
- Differentiated instructional materials; and,
- Differentiated center activities that reinforce and enhance the large and small group work.

Ensure bi-monthly supervisory feedback to teachers on these differentiated lesson plans.

1. Standards-based Teaching and Learning – Mathematics

Areas of Strength

Teachers are using lesson plans and other mathematical resources to construct learning activities that engage students.

- In 100% of mathematics lessons observed (n=15), observers noted completed lessons plans. Most lesson plans included reference to Massachusetts Curriculum Frameworks. Some lesson plans indicated student groupings, materials to be used and homework assignments.
- In 100% of mathematics lessons observed, teachers had adequate and appropriate mathematical tools and materials such as Everyday Mathematics (EDM) teacher editions, student books and manipulative materials.
- In 93% of mathematics classes, observers noted that students were well-behaved, attentive and appropriately focused on the lesson's task.

Teachers incorporated multiple forms of mathematical representations in lesson activities.

- In 87% of mathematics lessons observed (n=15), teachers used multiple forms of representation (e.g., charts, pictures, words, symbols) to provide students multiple ways to access mathematical concepts. This is especially notable, since the school has a large ELL population.

Priority Areas for Improvement

The district's adopted curriculum – Everyday Mathematics (EDM) – is not being consistently implemented or properly paced in all classrooms.

- Teaching of EDM was evident in only 67% (n=15) of the mathematics lessons observed. In the remaining 33% of the classrooms, lessons were focused on computational worksheets for subtraction, fractions and money.
- Student work samples reviewed by the fact-finding team were not based on EDM materials or lessons.
- Classroom observers noted that different EDM lessons and content were being taught in classes at the same grade level. This indicates a lack of consistent curriculum pacing.
- In focus groups, teachers could not clearly articulate mathematics skills and concepts taught in prior and future grades. Familiarity with the EDM long-term mathematical agenda was not clearly articulated.
- At some grade levels, enrichment classes (e.g., art) are scheduled in the middle of mathematics blocks, disrupting the consistency, continuity and time allotted for EDM instruction.

There is a lack of mathematics content knowledge that is negatively impacting teaching and student learning in this subject area.

- In 47% of mathematics lessons observed (n=15), teachers made significant mathematical errors when teaching and/or when creating materials and charts for display and student reference.
- In 80% of mathematics lessons observed, teachers did not anticipate and/or deal with student misconceptions. Knowledge of the “big ideas” is necessary to anticipate areas in which students commonly err when learning mathematics content and skills.
- In focus groups, teachers did not articulate specific professional development needs as related to mathematics. On the Department of Education (DOE) instructional staff survey, only 7% of staff indicated that content-specific professional development (PD) was needed.

There is a lack of high quality instructional practices at the school that is inhibiting mathematics teaching and student learning.

- In 67% of mathematics lessons observed, instruction focused on the procedural aspects (e.g., formulas, computational skills) of mathematics, rather than on the conceptual. That is, teachers – as called for in the EDM program – did not ask students to explore the concepts contained in the lesson in order to better understand their answers or derive mathematical generalizations.
- In 67% of mathematics classes observed, there was a lack of differentiated instruction as called for in the EDM program. Differentiated questioning, use of different numbers to scaffold or challenge individual students according to their needs and varied levels of EDM games were not evident in these lessons.

- In 73% of mathematics classes observed, there was a lack of student exemplars to demonstrate and model high-quality work. In these classrooms, there was no evidence of student work with correct answers, varied ways to represent correct answers, clear and organized formats for representation and/or alignment with rubrics.
- In 80% of mathematics lessons observed, students did not receive directive feedback – from either teachers or other students – to offer opportunities to examine their own learning or to self-correct. Even though students sat in groups in many classrooms, students did not typically engage in mathematical discourse or collaborative discussions with their peers.
- In 80% of the mathematics lessons observed, teachers did not ask higher-order questions that challenge students to extend learning opportunities, probe for understanding and, as a result, adjust instruction.

Recommendations

Ensure implementation of EDM in all classrooms every day so that all students have complete access to the curriculum as it is intended to be implemented, by:

- Monitoring implementation of the structural components of EDM through use of the district E-walk tool in all classrooms (i.e., regular education, special education and ELL classrooms);
- Ensuring that the support provided by the Mathematics Intervention Teacher (MIT) and other adults working in the classroom are constructing activities and implementing strategies aligned with EDM;
- Ensuring that Focus Fridays mathematics activities do not interfere with the mathematics blocks intended for instruction in the core mathematics curriculum – EDM; and,
- Revisiting the school-day schedule for enrichment subjects to provide as little disruption to dedicated time for teaching mathematics.

Create specific and user-friendly pacing guides to assist teachers in consistently implementing EDM across the school at all grade levels by:

- Ensuring that teachers are knowledgeable of the alignment and gaps between the EDM teacher edition and the Massachusetts Curriculum Frameworks;
- Using exemplars that have already been developed by some teachers to organize scope and sequence of instruction at various grade levels; and,
- Clarifying grade level responsibilities within the EDM, including how to move through the spiraling EDM curriculum and how to avoid re-teaching concepts to mastery before moving on the next curricular area, where these concepts are addressed (i.e., EDM spirals).

Advance the quality of instructional practices by increasing focus on activities that elicit active student engagement in the learning process and use of differentiated instructional practices to meet the learning needs of all students by:

- Moving implementation of EDM to a mathematics workshop model of instruction – for example, student-as-worker, teacher-as-facilitator;

- Utilizing the EDM structure to provide opportunities for differentiated instruction as described in the “Options for Individualizing” section of each lesson. Include differentiated questioning, scaffolding to challenge individual students according to their needs, playing different EDM games at varied levels and encouraging students to utilize response formats based on their personal learning styles;
- Increasing use of probing and higher-order questions to further challenge students’ conceptual levels of understanding. This will help to move mathematics instruction beyond the procedural level;
- Allowing students to investigate and struggle with the mathematics concepts, rather than providing answers or formulas prior to student exploration; and,
- Creating structures that foster productive cooperative group work and mathematical discourse among students in small groups.

Hire a trained, full-time mathematics coach who can provide embedded professional development and support to teachers in the classroom – both on implementation of EDM and the quality of instructional practices – by:

- Collaborating and conferencing with teachers on lesson planning, EDM pacing and instructional practices; and,
- Incorporating instructional strategies that foster intellectual rigor and high cognitive demand for all students.

2. Informing Practice with Data – Mathematics

Areas of Strength

Data on student achievement have been made available to teachers in an accessible, user-friendly format.

- Summative data – such as MAP and MCAS data – were observed in teachers’ classrooms.
- In focus groups, teachers indicated that MCAS and MAP data were being used to help create classroom assignments.

There is a structure for conversation regarding mathematics achievement data across grade levels.

- The school has created a mathematics team of grade-level representatives and administrative staff, who participate in bi-monthly meetings to discuss options for improving student achievement in mathematics.
- These conversations resulted in a program called Focus Fridays, implemented on a weekly basis, to address areas in need of improvement that were identified by studying MCAS data.

Priority Areas for Improvement

Formative assessments were not used to adjust the lesson in progress in order to meet student learning needs.

- In 80% of mathematics lessons observed (n=15), students did not receive directive feedback from either teachers or other students to foster discourse – particularly during group work.
- In 80% of the mathematics lessons observed, teachers did not ask higher-order questions that probed for understanding and, as a result, did not adjust instruction.
- In 93% of the lessons observed, students were not asked to question their own learning, articulate their understanding or justify their thinking.
- In focus groups, when asked how data was used to inform and impact mathematics instruction, teachers did not describe how they used data for this purpose.

Recommendations

Incorporate use of formative assessments to provide feedback to students and information to teachers, which can be used to adjust the lesson and differentiate instruction by:

- Increasing use of questions that probe for student understanding;
- Fostering opportunities for student discourse (e.g., explain mathematical reasoning) when students are seated/working in groups;
- Providing opportunities for student-led presentations; and,
- Promoting use of specific formative assessment strategies, offering teachers time to practice strategies and providing meaningful feedback on the use of selected formative assessments.

Utilize a full-time trained mathematics coach to help teachers interpret data, with the goal of impacting teaching and learning in mathematics.

3. Time for Teachers and Students

Areas of Strength

There is sufficient time for general instruction in ELA and mathematics.

- ELA: Students receive a minimum of 90 minutes instruction daily.
- Mathematics: Students receive a minimum of 60 minutes instruction daily.

Targeted interventions are available in reading both ELA and mathematics.

- A minimum of 30 additional minutes of ELA instruction per day is allocated for special education and ELL students through the HM three-tier model.

- Additional mathematics time is provided through the school's Focus Fridays initiative. Through use of mathematics games, teachers focus on a mathematics concept each month (e.g., graphing). These strategies are intended to be integrated also into other content areas.
- In collaboration with Worcester State College and the Latino Institute, a program called Even Start is offered after school to Latino students in grades K-2 for homework and literacy help. Parents are offered English as a second language (ESL) classes, computer classes and homework assistance to help their children with assignments.

An after-school program for at-risk students in grades 3-6 is provided by the 21st Century Program.

- Students are selected for this program, based on MCAS, MAP and MEPA scores, as well as teacher recommendation.
- The after-school program is held three days a week and focuses on MCAS tutoring, homework help and literacy, numeric and ESL support. Additional family involvement on special projects occurs four times a year.

Priority Areas for Improvement

Common planning time (CPT) is not built into the school day for grade level teachers to share strategies and plan lessons. Although some informal planning occurs, this is not sufficient to improve teaching and learning.

- Faculty meetings are scheduled two times per month. Occasionally, these meetings are used to provide staff time to meet in grade level teams.
- Although some teachers have preparatory periods in common, they are not required to meet for planning and sharing of instructional practice.
- The NCLBIT meets with grade-level teachers once a month during the school day for professional development. Substitutes cover classes so teachers are free for a 1½ - 2-hour block. Teachers do not have time for planning and collaboration during these times.

Recommendations

Provide ways to structure schedules so that grade-level teachers and support personnel have common planning time during the school day and school year. Work toward using some of the grade-level meeting times and more of faculty meeting times for planning and collaboration regarding instructional practice.

- Grade level CPT may help to strengthen lesson development and implementation and assist staff in working toward uniformly high expectations for student learning and performance.
- CPT may also focus on systematizing school-wide practices and strategies aligned with identified improvement targets.
- Use CPT to share strategies for integrating Focus Fridays mathematics activities into other content areas so that time for EDM is not compromised.

4. Leadership for Instructional Improvement – DISTRICT

Areas of Strength

The district provides sufficient staff, curriculum materials and time on site to support implementation of the school programs.

- The district provides adequate instructional resources for ELA and mathematics that are used by classroom teachers, special education and ESL teachers.
- The district provides adequate leadership and instructional support through four full-time positions, in addition to the principal:
 - An experienced, supervising assistant principal
 - No Child Left Behind Implementation Teacher (NCLBIT)
 - English Language Arts Intervention Teacher (ELAIT)
 - Mathematics Intervention Teacher (MIT)
- District leaders monitor the school's programs and provide support for school leaders through frequent and regular visits.

The district has supported a variety of professional development offerings for teachers and school leaders to support curriculum implementation at the school this year – for example:

- Ongoing training on how to use MAP data to inform instruction. Teachers meet monthly after school for grade-level meetings to review student MAP data, discuss groupings and develop strategies for intervention;
- The principal and an ESL teacher participated in a Category 2 train-the-trainer program on language acquisition for ELL students, offered by Massachusetts DOE. Twenty-one teachers from Chandler Magnet then attended the program co-facilitated for WPS by the principal and ESL teacher in the summer of 2006; and,
- Four teachers and the principal attended the Massachusetts Mathematics Institute (MMI) in the summer of 2006, to extend their knowledge of mathematics principles and instruction.

Priority Areas for Improvement

The district is not adequately supporting the school with PD on instructional practice, including methods for integrating new learnings into daily practice.

- Teachers have not received embedded coaching to ensure integration of new learnings into daily practice, e.g., for the 21 teachers who participated in the intensive Category 2 training or the four teachers who attended the MMI course.
- There is not yet a fully-developed model of PD to support teachers to integrate newly-learned instructional strategies into daily practice or to ensure that PD has the desired impact at the classroom level.

The district has not developed a plan with benchmarks for improving instruction at the Chandler Magnet School.

- There is no plan (or timetable) that specifies what instructional improvement is expected.

- The ELA E-walk protocol that contains little observation of instructional strategies fails to clarify expectations and provide specific feedback to teachers about their practice.
- The school is just beginning to use lesson plans that include the components identified in the district's lesson plan template.
- Although school leaders talk fluently about instructional practice, the district has not yet supported them by developing a common language to talk about instructional strategies and a shared understanding of terms such as "differentiated instruction."

The district is not adequately supporting the school's programs with a physical environment conducive to learning.

- The library has outdated books, some more than 40 years old.
- Grounds, including teachers' parking lot entrance, are littered.
- The interior of school is poorly maintained, e.g., some electrical outlets don't work, desks are in disrepair and blinds are broken and dirty.
- Teachers in focus groups reported they spend extra time, daily, rearranging their room to access an electrical outlet for the overhead projector, or rearranging desks of different sizes so they fit together in groupings.

Recommendations

In order to move curriculum implementation to the next level, provide clear expectations and a well-developed plan to improve the quality of classroom instruction by:

- Ensuring that PD is structured to assist and support teachers in transferring newly-learned strategies into everyday practice;
 - One such model includes: 1) a description of what the practice is and why it's effective; 2) modeling or seeing a demonstration; 3) guided practice with feedback (job-embedded coaching); 4) independent practice; and, 5) observation with feedback.
- Restructuring ELAIT and MIT services to provide modeling and coaching or, minimally, ensuring that the small group instruction currently provided is delivered in a push-in model as an intentional strategy to model for teachers (as specified in job descriptions);
- Supporting the school to develop a shared understanding of instructional vocabulary, such as differentiated instruction;
- Improving ELA E-walk protocol to better identify instructional strategies so teachers receive meaningful feedback about instructional practice; and,
- Raising expectations for supervision and evaluation of teachers' instructional practice; guide and support supervisors to raise standards.

Continue to upgrade and maintain the physical environment, building and grounds, to provide a setting that supports high levels of teaching and learning.

4. Leadership for Instructional Improvement – SCHOOL

Areas of Strength

School leaders are articulate and demonstrate understanding about instructional strategies and ways to address the needs of English language learners in regular classrooms.

- In focus groups, school leaders used language to talk about instructional practice and their expectations for instructional improvement.
- Language in teacher evaluations gives specific praise about instructional strategies (e.g., “... assessing students’ understanding by asking questions, having students explain their thinking or having students work with a partner and reporting out”) that further demonstrates instructional knowledge.

The newly implemented PBIS establishes clear behavioral expectations for students.

- In January 2006, the principal chose to implement the PBIS system to help teachers with classroom management.
- In a focus group, school leaders indicated that some student behavior had been disruptive to classroom instruction and that positive interventions (through PBIS) would better support the teaching and learning process, as opposed to the old system.
- The assistant principal models in classrooms and provides coaching with feedback to support implementation of the PBIS program.

Priority Areas for Improvement

Teachers are not receiving enough specific feedback on instructional practices to ensure high standards for teaching and learning.

- In focus groups, teachers reported that they do not receive enough individual constructive criticism on instructional practice from walk-throughs; school-wide issues identified in walk-throughs are raised in faculty meetings. The principal gives teachers some informal feedback orally, particularly if observed practices are “problematic.”
- From a review of a limited sample of teacher evaluations, it is not clear that teachers who need to make significant improvements in their teaching practices receive specific feedback and clear expectations for the instructional improvements they need to make.

The ELAIT and MIT are not providing in-class modeling and co-teaching, which are specified in their job descriptions.

- Job descriptions provided by the district indicate that the role of the ELAIT and MIT (among other tasks) is to provide “small group instruction – within the context of the classroom” – and “co-teach mathematics/balanced literacy and differentiated instruction lessons in the classroom.”
- The ELAIT and MIT are working with small groups of students predominantly for pull-out instruction, which does not offer teachers the opportunity to observe modeled practices. The MIT does some teaching in a push-in model. Co-teaching was not reported.

Professional development about instruction at the Chandler Magnet School is not structured for transfer to day-to-day practice.

- A review of agendas from grade-level meetings indicated that presentations are conducted to teach staff about new practices. However, opportunities for follow-up and support (i.e., see the model, independently practice the new model, in-class support and observation with feedback) have not been provided to ensure that teachers internalize and properly use learned practices.
- The school has not defined expectations or benchmarks, or provided embedded support to assist teachers in integrating newly-learned practices into everyday practice.

Recommendations

- Build upon some of the foundations that are already in place at the school, continue to improve the quality of instructional practice by:
 - Structuring grade-level meeting agendas as a lesson plan (e.g., with objectives, instructional strategies such as think-pair-share), as a model for teachers' own lesson planning. Raise standards for what teachers should include in their lesson plans;
 - Ensuring all staff members develop a common language about instructional practice and a shared understanding of terms, such as "differentiated instruction;"
 - Setting clear expectations about instructional strategies by giving frequent, quick, specific praise and constructive criticism, based on walk-throughs;
 - Maximizing use of the teacher evaluation process to set clear expectations for high-level instructional practice;
 - Ensuring that PD includes 1) a description of what the practice is and why it's effective; 2) modeling or seeing a demonstration; 3) guided practice with feedback (job-embedded coaching); 4) independent practice; and, 5) observation with feedback;
 - Changing ELAIT and MIT small group instruction of students from pull-out to push-in and developing some co-teaching as intentional ways to improve instructional practice at a faster pace; and,
 - Articulating clear, high standards for changes in practice, with benchmarks for improvement.

APPENDIX A: MA DOE FF Visit Staffing

Burncoat Middle School		October 31 – November 2, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Su Henry	Consultant	SchoolWorks
Loretta Heuer	Senior Research Associate, K-12, Mathematics Curriculum Center, EDC*	Contracted by SchoolWorks
Joseph Trunk	Consultant	SchoolWorks
Pat Desmond	Independent consultant	Contracted by MA DOE**
Joanne Grenier	Independent consultant	Contracted by MA DOE
Life LeGeros	Math, Sciences and Technology	MA DOE
David Parker	Math, Sciences and Technology	MA DOE
Burncoat Elementary Preparatory School		November 3, 6, 8, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Su Henry	Consultant	SchoolWorks
Loretta Heuer	Senior Research Associate, K-12, Mathematics Curriculum Center, EDC*	Contracted by SchoolWorks
Linda Moriarty	Consultant	SchoolWorks
Amy Carithers	Reading	MA DOE
Dot Earle	Reading	MA DOE
David Parker	Math, Sciences and Technology	MA DOE
Jeanne Simons	Math, Sciences and Technology	MA DOE
Forest Grove Middle School		November 13 - 15, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Herb Green	Consultant	SchoolWorks
Linda Moriarty	Consultant	SchoolWorks
Joseph Trunk	Consultant	SchoolWorks
Elizabeth Davis	Assessment	MA DOE
Joanne Grenier	Independent consultant	Contracted by MA DOE
David Parker	Math, Sciences and Technology	MA DOE
Jeanne Simons	Math, Sciences and Technology	MA DOE
Lincoln Street Elementary School		November 15 - 17, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Herb Green	Consultant	SchoolWorks
Linda Moriarty	Consultant	SchoolWorks
Megan Tupa	Product Manager	SchoolWorks
Amy Carithers	Reading	MA DOE
Susan Kazeroid	Reading	MA DOE
Egbert Personnat	Math, Sciences and Technology	MA DOE
David Parker	Math, Sciences and Technology	MA DOE

*EDC = Education Development Center

**MA DOE = Massachusetts Department of Education

APPENDIX A: MA DOE FF Visit Staffing

Sullivan Middle School		November 17, 20-21, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Su Henry	Consultant	SchoolWorks
Loretta Heuer	Senior Research Associate, K-12, Mathematics Curriculum Center, EDC*	Contracted by SchoolWorks
Joseph Trunk	Consultant	SchoolWorks
Elizabeth Davis		MA DOE
Janet Furey	Independent consultant	Contracted by MA DOE
David Parker	Math, Sciences and Technology	MA DOE
Jeanne Simons	Math, Sciences and Technology	MA DOE
Chandler Elementary School		November 28 - 30, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Su Henry	Consultant	SchoolWorks
Herb Green	Consultant	SchoolWorks
Linda Moriarty	Consultant	SchoolWorks
Sue Erabino	Reading	Contracted by MA DOE
Carol Lach	Math, Sciences and Technology	MA DOE
Geri O'Brien	Reading	MA DOE
David Parker	Math, Sciences and Technology	MA DOE
Chandler Magnet School		December 1, 4-5, 2006
Ann Dinsmoor	Consultant	SchoolWorks
Su Henry	Consultant	SchoolWorks
Loretta Heuer	Senior Research Associate, K-12, Mathematics Curriculum Center, EDC*	Contracted by SchoolWorks
Linda Moriarty	Consultant	SchoolWorks
Cathy Buendo	Reading	Contracted by MA DOE
Mary Charles	Reading	MA DOE
David Parker	Math, Sciences and Technology	MA DOE
Jeanne Simons	Math, Sciences and Technology	MA DOE

*EDC = Education Development Center

**MA DOE = Massachusetts Department of Education

APPENDIX B: MA DOE FF Visit Schedule

The following is a sample fact-finding team schedule.

DAY 1

	Practitioner A	Practitioner B	Practitioner C	Practitioner D	Core Team
7:00 - 7:30	TEAM MEETING				
7:30 – 11:00	ELA Classroom Observations		Math Classroom Observations		DOE and SW Representatives Meet with Principal
	ARRIVE at School ELA & Math Core Team Members				
11:30 - 12:15	TEAM MEETING, DEBRIEF AND LUNCH				
12:15- 2:30	ELA Classroom Observations		Math Classroom Observations		Teacher Focus groups
2:30– 5:00	TEAM MEETING AND DEBRIEF				

DAY 2

	Practitioner A	Practitioner B	Practitioner C	Practitioner D	Core Team
7:00 - 7:30	TEAM MEETING				
7:30 – 11:30	ELA Classroom Observations		Math Classroom Observations		Feedback w/ School Leadership
					Teacher focus group
					Meet with School Leadership
					Interviews with content area specialists
					Meet with District Leadership
					Teacher focus group
11:30- 12:15	TEAM MEETING, DEBRIEF AND LUNCH				
12:15- 3:00	MEETING AND DELIBERATIONS – ELA AND MATH CORE CONTENT TEAM AND PRACTITIONERS				Leadership team focus group
					Follow up as needed
3:00 – 6:00	PRACTITIONERS DEPART; CORE TEAM MEETING AND DELIBERATIONS				

DAY 3

	SW Core Team only
7:30- 10:00	Follow up, document reviews and deliberations as needed
10:00 – 11:30	REPORT/DISCUSSION OF FINDINGS WITH SCHOOL AND DISTRICT LEADERSHIP
11:45	Team Departs

Burncoat Middle School English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	11	5	16	69%
1.2. Exemplars demonstrate expectations of achievement	9	6	15	60%
Totals	20	11	31	65%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	9	7	16	56%
2.2. Time used efficiently and purposefully	10	6	16	63%
2.3. Multiple grouping strategies achieve learning objective	8	8	16	50%
Totals	27	21	48	56%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	16	0	16	100%
3.2. Appearance/physical org. contribute to positive environment	16	0	16	100%
Totals	32	0	32	100%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	11	5	16	69%
4.2. Students engaged in learning in various ways	6	9	15	40%
4.3. Students examine thinking with questioning/data	6	9	15	40%
Totals	23	23	46	50%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	15	1	16	94%
5.2. Use of probing questions and student responses	7	8	15	47%
5.3. Prior knowledge incorporated; perspectives acknowledged	11	5	16	69%
5.4. Misconceptions anticipated/identified and addressed	9	1	10	90%
5.5. Classroom strategies incorporate multiple representations	9	6	15	60%
Totals	51	21	72	71%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	12	4	16	75%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	6	16	63%
7.2. Various learning experiences provided for range of learners	7	9	16	44%
Totals	17	15	32	53%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	7	9	16	44%
8.2. Students responsible for learning w/directive feedback	7	9	16	44%
Totals	14	18	32	44%

Burncoat Middle School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	1	6	7	14%
1.2. Exemplars demonstrate expectations of achievement	1	6	7	14%
Totals	2	12	14	14%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	6	1	7	86%
2.2. Time used efficiently and purposefully	5	2	7	71%
2.3. Multiple grouping strategies achieve learning objective	5	2	7	71%
Totals	16	5	21	76%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	7	0	7	100%
3.2. Appearance/physical org. contribute to positive environment	7	0	7	100%
Totals	14	0	14	100%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	7	0	7	100%
4.2. Students engaged in learning in various ways	4	3	7	57%
4.3. Students examine thinking with questioning/data	2	5	7	29%
Totals	13	8	21	62%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	5	2	7	71%
5.2. Use of probing questions and student responses	1	6	7	14%
5.3. Prior knowledge incorporated; perspectives acknowledged	6	0	6	100%
5.4. Misconceptions anticipated/identified and addressed	3	4	7	43%
5.5. Classroom strategies incorporate multiple representations	6	1	7	86%
Totals	21	13	34	62%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	5	0	5	100%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	3	4	7	43%
7.2. Various learning experiences provided for range of learners	0	7	7	0%
Totals	3	11	14	21%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	6	1	7	86%
8.2. Students responsible for learning w/directive feedback	2	5	7	29%
Totals	8	6	14	57%

Burncoat Prep Elementary English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	5	10	15	33%
1.2. Exemplars demonstrate expectations of achievement	1	13	14	7%
Totals	6	23	29	21%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	7	8	15	47%
2.2. Time used efficiently and purposefully	11	4	15	73%
2.3. Multiple grouping strategies achieve learning objective	8	6	14	57%
Totals	26	18	44	59%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	14	1	15	93%
3.2. Appearance/physical org. contribute to positive environment	10	3	13	77%
Totals	24	4	28	86%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	10	5	15	67%
4.2. Students engaged in learning in various ways	7	8	15	47%
4.3. Students examine thinking with questioning/data	4	11	15	27%
Totals	21	24	45	47%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	11	4	15	73%
5.2. Use of probing questions and student responses	6	9	15	40%
5.3. Prior knowledge incorporated; perspectives acknowledged	9	6	15	60%
5.4. Misconceptions anticipated/identified and addressed	5	10	15	33%
5.5. Classroom strategies incorporate multiple representations	7	8	15	47%
Totals	38	37	75	51%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	9	6	15	60%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	12	3	15	80%
7.2. Various learning experiences provided for range of learners	5	8	13	38%
Totals	17	11	28	61%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	3	12	15	20%
8.2. Students responsible for learning w/directive feedback	2	13	15	13%
Totals	5	25	30	17%

Burncoat Prep Elementary School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	5	8	13	38%
1.2. Exemplars demonstrate expectations of achievement	1	12	13	8%
Totals	6	20	26	23%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	11	2	13	85%
2.2. Time used efficiently and purposefully	11	3	14	79%
2.3. Multiple grouping strategies achieve learning objective	5	7	12	42%
Totals	27	12	39	69%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	9	4	13	69%
3.2. Appearance/physical org. contribute to positive environment	14	0	14	100%
Totals	23	4	27	85%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	12	1	13	92%
4.2. Students engaged in learning in various ways	8	6	14	57%
4.3. Students examine thinking with questioning/data	3	10	13	23%
Totals	23	17	40	58%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	9	5	14	64%
5.2. Use of probing questions and student responses	2	11	13	15%
5.3. Prior knowledge incorporated; perspectives acknowledged	8	6	14	57%
5.4. Misconceptions anticipated/identified and addressed	4	10	14	29%
5.5. Classroom strategies incorporate multiple representations	9	4	13	69%
Totals	32	36	68	47%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	9	1	10	90%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	4	14	71%
7.2. Various learning experiences provided for range of learners	4	10	14	29%
Totals	14	14	28	50%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	8	5	13	62%
8.2. Students responsible for learning w/directive feedback	5	9	14	36%
Totals	13	14	27	48%

Forest Grove Middle School English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	8	7	15	53%
1.2. Exemplars demonstrate expectations of achievement	6	9	15	40%
Totals	14	16	30	47%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	14	1	15	93%
2.2. Time used efficiently and purposefully	11	4	15	73%
2.3. Multiple grouping strategies achieve learning objective	4	11	15	27%
Totals	29	16	45	64%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	13	2	15	87%
3.2. Appearance/physical org. contribute to positive environment	13	2	15	87%
Totals	26	4	30	87%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	12	3	15	80%
4.2. Students engaged in learning in various ways	11	4	15	73%
4.3. Students examine thinking with questioning/data	3	12	15	20%
Totals	26	19	45	58%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	14	1	15	93%
5.2. Use of probing questions and student responses	9	6	15	60%
5.3. Prior knowledge incorporated; perspectives acknowledged	10	5	15	67%
5.4. Misconceptions anticipated/identified and addressed	7	4	11	64%
5.5. Classroom strategies incorporate multiple representations	8	7	15	53%
Totals	48	23	71	68%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	4	5	9	44%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	5	15	67%
7.2. Various learning experiences provided for range of learners	2	13	15	13%
Totals	12	18	30	40%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	6	9	15	40%
8.2. Students responsible for learning w/directive feedback	4	10	14	29%
Totals	10	19	29	34%

Forest Grove Middle School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	0	7	7	0%
1.2. Exemplars demonstrate expectations of achievement	0	7	7	0%
Totals	0	14	14	0%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	6	1	7	86%
2.2. Time used efficiently and purposefully	3	4	7	43%
2.3. Multiple grouping strategies achieve learning objective	3	4	7	43%
Totals	12	9	21	57%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	2	5	7	29%
3.2. Appearance/physical org. contribute to positive environment	6	1	7	86%
Totals	8	6	14	57%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	4	3	7	57%
4.2. Students engaged in learning in various ways	2	5	7	29%
4.3. Students examine thinking with questioning/data	0	7	7	0%
Totals	6	15	21	29%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	3	3	6	50%
5.2. Use of probing questions and student responses	0	7	7	0%
5.3. Prior knowledge incorporated; perspectives acknowledged	1	6	7	14%
5.4. Misconceptions anticipated/identified and addressed	1	6	7	14%
5.5. Classroom strategies incorporate multiple representations	5	2	7	71%
Totals	10	24	34	29%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	4	3	7	57%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	0	7	7	0%
7.2. Various learning experiences provided for range of learners	0	7	7	0%
Totals	0	14	14	0%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	1	6	7	14%
8.2. Students responsible for learning w/directive feedback	0	7	7	0%
Totals	1	13	14	7%

Lincoln Street Elementary School English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	2	8	10	20%
1.2. Exemplars demonstrate expectations of achievement	0	10	10	0%
Totals	2	18	20	10%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	6	4	10	60%
2.2. Time used efficiently and purposefully	7	3	10	70%
2.3. Multiple grouping strategies achieve learning objective	7	3	10	70%
Totals	20	10	30	67%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	10	0	10	100%
3.2. Appearance/physical org. contribute to positive environment	10	0	10	100%
Totals	20	0	20	100%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	8	2	10	80%
4.2. Students engaged in learning in various ways	6	4	10	60%
4.3. Students examine thinking with questioning/data	2	8	10	20%
Totals	16	14	30	53%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	8	2	10	80%
5.2. Use of probing questions and student responses	5	5	10	50%
5.3. Prior knowledge incorporated; perspectives acknowledged	5	5	10	50%
5.4. Misconceptions anticipated/identified and addressed	5	5	10	50%
5.5. Classroom strategies incorporate multiple representations	7	3	10	70%
Totals	30	20	50	60%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	9	1	10	90%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	0	10	100%
7.2. Various learning experiences provided for range of learners	3	7	10	30%
Totals	13	7	20	65%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	2	6	8	25%
8.2. Students responsible for learning w/directive feedback	3	5	8	38%
Totals	5	11	16	31%

Lincoln Street Elementary School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	9	2	11	82%
1.2. Exemplars demonstrate expectations of achievement	5	6	11	45%
Totals	14	8	22	64%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	11	0	11	100%
2.2. Time used efficiently and purposefully	9	2	11	82%
2.3. Multiple grouping strategies achieve learning objective	4	7	11	36%
Totals	24	9	33	73%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	10	1	11	91%
3.2. Appearance/physical org. contribute to positive environment	10	1	11	91%
Totals	20	2	22	91%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	11	0	11	100%
4.2. Students engaged in learning in various ways	8	3	11	73%
4.3. Students examine thinking with questioning/data	2	9	11	18%
Totals	21	12	33	64%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	10	1	11	91%
5.2. Use of probing questions and student responses	4	7	11	36%
5.3. Prior knowledge incorporated; perspectives acknowledged	7	4	11	64%
5.4. Misconceptions anticipated/identified and addressed	4	7	11	36%
5.5. Classroom strategies incorporate multiple representations	7	4	11	64%
Totals	32	23	55	58%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	11	0	11	100%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	8	3	11	73%
7.2. Various learning experiences provided for range of learners	3	8	11	27%
Totals	11	11	22	50%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	3	8	11	27%
8.2. Students responsible for learning w/directive feedback	5	6	11	45%
Totals	8	14	22	36%

Sullivan Middle School English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	6	6	12	50%
1.2. Exemplars demonstrate expectations of achievement	6	5	11	55%
Totals	12	11	23	52%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	8	4	12	67%
2.2. Time used efficiently and purposefully	10	2	12	83%
2.3. Multiple grouping strategies achieve learning objective	9	3	12	75%
Totals	27	9	36	75%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	10	2	12	83%
3.2. Appearance/physical org. contribute to positive environment	11	1	12	92%
Totals	21	3	24	88%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	9	3	12	75%
4.2. Students engaged in learning in various ways	9	3	12	75%
4.3. Students examine thinking with questioning/data	5	7	12	42%
Totals	23	13	36	64%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	9	3	12	75%
5.2. Use of probing questions and student responses	8	4	12	67%
5.3. Prior knowledge incorporated; perspectives acknowledged	8	4	12	67%
5.4. Misconceptions anticipated/identified and addressed	8	3	11	73%
5.5. Classroom strategies incorporate multiple representations	8	4	12	67%
Totals	41	18	59	69%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	6	1	7	86%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	2	12	83%
7.2. Various learning experiences provided for range of learners	6	4	10	60%
Totals	16	6	22	73%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	8	4	12	67%
8.2. Students responsible for learning w/directive feedback	4	7	11	36%
Totals	12	11	23	52%

Sullivan Middle School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	5	8	13	38%
1.2. Exemplars demonstrate expectations of achievement	5	8	13	38%
Totals	10	16	26	38%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	12	1	13	92%
2.2. Time used efficiently and purposefully	10	3	13	77%
2.3. Multiple grouping strategies achieve learning objective	8	5	13	62%
Totals	30	9	39	77%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	11	2	13	85%
3.2. Appearance/physical org. contribute to positive environment	12	1	13	92%
Totals	23	3	26	88%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	10	3	13	77%
4.2. Students engaged in learning in various ways	6	7	13	46%
4.3. Students examine thinking with questioning/data	5	8	13	38%
Totals	21	18	39	54%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	10	2	12	83%
5.2. Use of probing questions and student responses	5	8	13	38%
5.3. Prior knowledge incorporated; perspectives acknowledged	7	6	13	54%
5.4. Misconceptions anticipated/identified and addressed	6	7	13	46%
5.5. Classroom strategies incorporate multiple representations	11	2	13	85%
Totals	39	25	64	61%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	12	1	13	92%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	9	4	13	69%
7.2. Various learning experiences provided for range of learners	5	7	12	42%
Totals	14	11	25	56%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	7	6	13	54%
8.2. Students responsible for learning w/directive feedback	5	8	13	38%
Totals	12	14	26	46%

Chandler Elementary School English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	1	15	16	6%
1.2. Exemplars demonstrate expectations of achievement	2	14	16	13%
Totals	3	29	32	9%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	9	7	16	56%
2.2. Time used efficiently and purposefully	7	9	16	44%
2.3. Multiple grouping strategies achieve learning objective	10	6	16	63%
Totals	26	22	48	54%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	8	8	16	50%
3.2. Appearance/physical org. contribute to positive environment	10	6	16	63%
Totals	18	14	32	56%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	8	8	16	50%
4.2. Students engaged in learning in various ways	2	14	16	13%
4.3. Students examine thinking with questioning/data	8	8	16	50%
Totals	18	30	48	38%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	11	5	16	69%
5.2. Use of probing questions and student responses	5	11	16	31%
5.3. Prior knowledge incorporated; perspectives acknowledged	12	3	15	80%
5.4. Misconceptions anticipated/identified and addressed	10	5	15	67%
5.5. Classroom strategies incorporate multiple representations	13	2	15	87%
Totals	51	26	77	66%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	7	6	13	54%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	6	16	63%
7.2. Various learning experiences provided for range of learners	4	12	16	25%
Totals	14	18	32	44%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	4	12	16	25%
8.2. Students responsible for learning w/directive feedback	5	11	16	31%
Totals	9	23	32	28%

Chandler Elementary School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	5	8	13	38%
1.2. Exemplars demonstrate expectations of achievement	2	11	13	15%
Totals	7	19	26	27%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	9	4	13	69%
2.2. Time used efficiently and purposefully	9	5	14	64%
2.3. Multiple grouping strategies achieve learning objective	7	7	14	50%
Totals	25	16	41	61%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	13	1	14	93%
3.2. Appearance/physical org. contribute to positive environment	12	2	14	86%
Totals	25	3	28	89%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	13	1	14	93%
4.2. Students engaged in learning in various ways	9	5	14	64%
4.3. Students examine thinking with questioning/data	7	7	14	50%
Totals	29	13	42	69%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	12	2	14	86%
5.2. Use of probing questions and student responses	5	9	14	36%
5.3. Prior knowledge incorporated; perspectives acknowledged	12	2	14	86%
5.4. Misconceptions anticipated/identified and addressed	8	6	14	57%
5.5. Classroom strategies incorporate multiple representations	9	5	14	64%
Totals	46	24	70	66%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	11	2	13	85%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	6	8	14	43%
7.2. Various learning experiences provided for range of learners	4	8	12	33%
Totals	10	16	26	38%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	8	6	14	57%
8.2. Students responsible for learning w/directive feedback	5	9	14	36%
Totals	13	15	28	46%

Chandler Magnet School English Language Arts Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	5	8	13	38%
1.2. Exemplars demonstrate expectations of achievement	8	5	13	62%
Totals	13	13	26	50%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	11	2	13	85%
2.2. Time used efficiently and purposefully	10	3	13	77%
2.3. Multiple grouping strategies achieve learning objective	10	3	13	77%
Totals	31	8	39	79%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	13	0	13	100%
3.2. Appearance/physical org. contribute to positive environment	11	2	13	85%
Totals	24	2	26	92%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	12	1	13	92%
4.2. Students engaged in learning in various ways	9	4	13	69%
4.3. Students examine thinking with questioning/data	5	8	13	38%
Totals	26	13	39	67%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	9	2	11	82%
5.2. Use of probing questions and student responses	8	4	12	67%
5.3. Prior knowledge incorporated; perspectives acknowledged	10	3	13	77%
5.4. Misconceptions anticipated/identified and addressed	11	2	13	85%
5.5. Classroom strategies incorporate multiple representations	11	2	13	85%
Totals	49	13	62	79%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	10	3	13	77%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	3	13	77%
7.2. Various learning experiences provided for range of learners	10	3	13	77%
Totals	20	6	26	77%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	8	4	12	67%
8.2. Students responsible for learning w/directive feedback	7	5	12	58%
Totals	15	9	24	63%

Chandler Magnet School Mathematics Classroom Observation Data

	Observed	Not Observed	Opportunities	Percent
1. STUDENT LEARNING STANDARDS				
1.1. Evident and clear to students	8	6	14	57%
1.2. Exemplars demonstrate expectations of achievement	4	11	15	27%
Totals	12	17	29	41%
2. ORGANIZATION OF THE LESSON				
2.1. Well planned/organized; objectives stated; develops logically	15	0	15	100%
2.2. Time used efficiently and purposefully	10	5	15	67%
2.3. Multiple grouping strategies achieve learning objective	9	6	15	60%
Totals	34	11	45	76%
3. CLASSROOM ENVIRONMENT				
3.1. Students appear safe and willing to take risks	12	3	15	80%
3.2. Appearance/physical org. contribute to positive environment	13	2	15	87%
Totals	25	5	30	83%
4. STUDENT ENGAGEMENT				
4.1. Students actively engaged; behavior appropriate	14	1	15	93%
4.2. Students engaged in learning in various ways	6	9	15	40%
4.3. Students examine thinking with questioning/data	1	14	15	7%
Totals	21	24	45	47%
5. TEACHING				
5.1. Depth of content knowledge evident/accurate	8	6	14	57%
5.2. Use of probing questions and student responses	3	12	15	20%
5.3. Prior knowledge incorporated; perspectives acknowledged	10	5	15	67%
5.4. Misconceptions anticipated/identified and addressed	3	12	15	20%
5.5. Classroom strategies incorporate multiple representations	13	2	15	87%
Totals	37	37	74	50%
6. INSTRUCTIONAL TOOLS				
6.1. Tools/resources are accessible/appropriate	14	1	15	93%
7. EQUITY				
7.1. Expectations; all participate; ideas valued; effort emphasized	10	5	15	67%
7.2. Various learning experiences provided for range of learners	5	10	15	33%
Totals	15	15	30	50%
8. ASSESSMENT				
8.1. Multiple types: diagnostic/formative	7	8	15	47%
8.2. Students responsible for learning w/directive feedback	3	12	15	20%
Totals	10	20	30	33%