Lowell Public Schools
Review of District Systems and Practices Addressing the Differentiated Needs of English Language Learners

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Overview

Purpose

The Center for District and School Accountability (CDSA) in the Department of Elementary and Secondary Education (ESE) is undertaking a series of reviews of school districts to determine how well district systems and practices support groups of students for whom an achievement gap exists. The reviews will focus in turn on how district systems and practices affect each of four groups of students: students with disabilities, English language learners (ELL), low-income students, and students who are members of racial minorities. Spring 2010 reviews aim to identify district and school factors contributing to relatively high growth for limited English proficient (LEP) student performance in selected schools, to provide recommendations for improvement on district and school levels to maintain or accelerate the growth in student achievement, and to promote the dissemination of promising practices among Massachusetts public schools. This review complies with the requirements of Chapter 15, Section 55A, to conduct district audits in districts whose students achieve at high levels relative to districts that educate similar student populations. The review is part of ESE's program to recognize schools as "distinguished schools" under section 1117(b) of the federal Elementary and Secondary Education Act, which allows states to use Title I funds to reward schools that significantly closed the achievement gap. Districts and schools with exemplary practices identified through the review process may serve as models for and provide support to other districts and schools.

Selection of Districts

ESE identified 36 Title I schools in 14 districts where the performance of students with limited English proficiency (LEP students) exceeds expectations. All Massachusetts schools receiving Title I funds were eligible for identification, with the exception of reconfigured schools or schools that did not serve tested grades for the years under review. ESE staff analyzed MCAS data from 2008 and 2009 to identify schools that narrowed performance gaps between LEP students and all students statewide. The methodology compared the MCAS raw scores of LEP students enrolled in the schools with the predicted MCAS raw scores of LEP students statewide. The methodology also incorporated whether LEP students improved their performance from 2008 to 2009. "Gap closers" did not have to meet AYP performance or improvement targets, but did have to meet 2009 AYP targets for participation, attendance and high school graduation, as applicable. Districts with gap closers were invited to participate in a comprehensive district review to identify district and school practices associated with stronger performance for LEP students, as part of ESE's distinguished schools program (described above), "Impact of District Programs and Support on School Improvement: Identifying and Sharing Promising School and District Practices for Limited English Proficient Students."

Methodology

To focus the analysis, reviews will explore five areas: **Leadership and Governance, Curriculum and Instruction, Assessment, Human Resources and Professional Development, and Student Support.** The reviews will seek to identify those systems and practices that are most likely to be contributing to positive results, as well as those that may be impeding rapid improvement. Systems and practices that are likely to be contributing to positive results were identified from the ESE's District Standards and Indicators and from a draft report of the English Language Learners Sub-Committee of the Massachusetts Board of Elementary and Secondary Education's Committee on the Proficiency Gap[1]. Reviews are evidence-based and data-driven. Four to eight team members will preview selected documents and ESE data and reports before conducting a two-day site visit in the district and a two-day site visit to schools. The team will consist of independent consultants with expertise in each of the five areas listed above, as well as English language learner education (to collect evidence across all areas).

[1] *Halting the Race to the Bottom: Urgent Interventions for the Improvement of the Education of English Language Learners in Massachusetts and Selected Districts*, December 2009

Lowell Public Schools

The site visit to the Lowell Public Schools was conducted on May 18, 20, 24-26, 2010. The site visit included visits to the following district schools: Abraham Lincoln (pre-K-4), B.F. Butler Middle (5-8), Dr. An Wang Middle (5-8), James S. Daley Middle (5-8), John J. Shaughnessy (pre-K-4), Kathryn P. Stoklosa Middle (5-8), Pyne Arts (pre-K-8), and Washington (pre-K-4). All of these schools were identified as "gap closers" for their limited English proficient students, as described above. Further information about the review and the site visit schedule can be found in Appendix B; information about the members of the review team can be found in Appendix A.

District Profile[2]

The Lowell Public Schools enrolled 13,331 students in 2010. Enrollment has decreased by 571 students since 2007. There are 21 schools in the district: 15 elementary schools (13 pre-K-4 and two K-8) five middle schools (5-8), and one high school (9-12).

Table 1: Lowell Student Enrollment by Race/Ethnicity & Selected Populations 2009-2010

Enrollment by Race/Ethnicity	Percent of Total	Selected Populations	Percent of Total
African-American	6.6	First Language not English	43.7
Asian	28.4	Limited English Proficient	32.4
Hispanic or Latino	25.3	Low-income	69.7
Native American	0.2	Special Education	15.1
White	37.8	Free Lunch	58.3
Native Hawaiian/ Pacific Islander	0.0	Reduced-price lunch	11.4
Multi-Race, Non-Hispanic	1.7		

Source: School/District Profiles on ESE website.

As the table above shows, the district has three large subgroup populations: 37.8 percent of the students are white, 28.4 percent are Asian, and 25.3 percent are Hispanic. The other subgroups

[2] Student demographic data derived from ESE's website, ESE's Education Data Warehouse, or other ESE sources.

combined constitute 8.5 percent of the population. The table also shows significant percentages of low-income (69.7 percent), and LEP (32.4 percent) students.

The district has experienced some recent changes in leadership. The superintendent is in her second year, and the district did not have a special education director in 2009-2010. This position was eliminated from the budget in the previous year, but at the time of the review a search was underway to fill the position for 2010-2011.

One important reorganization at the district level has involved incorporating responsibility for ELL students under the deputy superintendent for curriculum, instruction, and assessment, forging one model of literacy instruction for all students, including ELL students.

Student Performance[3]

Lowell's 2009 Adequate Yearly Progress (AYP) data indicate that in both English language arts (ELA) and Mathematics the school district was in Corrective Action for Subgroups. Further, according to the AYP history, Lowell has not made AYP for all subgroups since the federal government began reporting this data in 2003. The following is an analysis of 2009 AYP results by grade spans (3-5, 6-8, 9-12):

- grades 9 through 12 made AYP in ELA in the aggregate from 2007 to 2009;
- grades 9 through 12 made AYP in Mathematics in the aggregate in 2007 and 2009; they did not make it in 2008;
- in grades 9 through 12, subgroups made AYP in 2009, except for the special education subgroup
- grades 6 through 8 made AYP in ELA in the aggregate in 2007, but not in 2008 or 2009;
- grades 6 through 8 made AYP in Mathematics in the aggregate in 2007, but not in 2008 or 2009;
- grades 3 through 5 have not made AYP in the aggregate in ELA from 2007 to 2009;
- grades 3 through 5 made AYP in the aggregate in Mathematics in 2007, but not in 2008 or 2009;
- in grades 3 through 5 and 6 through 8, all subgroups failed to make AYP from 2007 to 2009.

In grades 9 through 12 in the aggregate, with one exception, the district has made AYP over the last three years. Before that, the district had little success in making AYP either in the aggregate or for all subgroups.

[3] Data derived from ESE's website, ESE's Education Data Warehouse, or other ESE sources.

According to the tables below, when the Composite Performance Index (CPI) and median Student Growth Percentiles (SGPs) of LEP students in Lowell are compared to those of LEP students statewide, the results are positive.

Table 2: Comparison of Lowell and State LEP CPIs in 2009 on the MCAS tests

	Lowell	State	Difference
Grade 3 Reading	60.7	60.7	0
Grade 3 Math	57.5	61.4	-3.9
Grade 4 ELA	57.4	54.9	2.5
Grade 4 Math	58.2	57.6	.6
Grade 5 ELA	61.4	57.6	3.8
Grade 5 Math	52.8	50.2	2.6
Grade 6 ELA	63.5	53.9	9.6
Grade 6 Math	60.3	49.3	11
Grade 7 ELA	59.7	54.8	4.9
Grade 7 Math	43.0	41.6	1.4
Grade 8 ELA	67.6	58.4	9.2
Grade 8 Math	44.2	41.0	3.2
Grade 10 ELA	72.1	58.4	13.7
Grade 10 Math	70.6	60.3	10.3
All Grades ELA	62.3	57.2	5.1
All Grades Math	55.3	53.1	2.2

Source: School/District Profiles on ESE website

As Table 2 shows, with the exception of grade 3 Reading and Mathematics, Lowell LEP students had CPIs above those of LEP students in the state. The differences were substantial for grade 6 ELA and Mathematics, grade 8 ELA, and grade 10 ELA and Mathematics. In addition, with the exception of grade 3 Reading and Mathematics and grade 7 Mathematics, Lowell LEP students exceeded the state LEP proficiency rates in all grades in both ELA and Mathematics.

Table 3 below compares the median student growth percentiles (SGPs) of LEP students in Lowell with the median SGPs for LEP students statewide. With five exceptions (grades 4, 5, and 8 ELA and grade 10 ELA and Mathematics) Lowell LEP students exceeded the median SGPs for LEP students statewide. In grades 4 and 6 Mathematics, the median SGPs were substantially greater than the statewide SGP, while at other grades the median SGPs were only slightly

greater. Lowell LEP students had the same median SGP in ELA for all grades combined as LEP students statewide, and Lowell LEP students exceeded the statewide median SGP in Mathematics for all grades combined.

Table 3: Comparison of Lowell and State LEP Median Student Growth Percentiles

	Lowell	State	Difference
Grade 3 Reading	NA	NA	-
Grade 3 Math	NA	NA	-
Grade 4 ELA	44	44	0
Grade 4 Math	49	40	9
Grade 5 ELA	45	46	-1
Grade 5 Math	47	46	1
Grade 6 ELA	59	52	7
Grade 6 Math	73	51	22
Grade 7 ELA	51	49	2
Grade 7 Math	55	53	2
Grade 8 ELA	55	57	-2
Grade 8 Math	61	55	6
Grade 10 ELA	42	50	-8
Grade 10 Math	44	48	-4
All Grades ELA	48	48	0
All Grades Math	55	48	7

Source: School/District Profiles on ESE website

Findings

Leadership and Governance

The belief that all children can learn given the appropriate amount of time and support permeates every system and function in the Lowell Public Schools.

The mission to educate all students to a high level of achievement permeates the Lowell Public Schools. This internalized mission was evident in interviews with administrators, teachers, staff, parents, and students. Principals and teachers believe that all students benefit from a range of teaching strategies, a variety of materials, and supportive classrooms. When asked by the review team to account for the higher growth of ELL students in Lowell, principals and staff were initially hesitant, because they tended to think about students' needs holistically, rather than by subgroup. After a moment, they responded enthusiastically by describing the rich instructional approaches used in district classrooms. In the culture of the Lowell Public Schools and in the minds of the staff there are no differences in students' needs. They believe, and more importantly act on their belief, that all students benefit from an emphasis on language development.

There are no subgroup silos in the Lowell Public Schools. Learners' needs are addressed non-categorically in this district with high percentages of ELL and low-income students. Lowell has eliminated the barriers created by categorical programs in order to render services to students based on common needs. Because of the high need of most Lowell students for language development, the district has merged the ELL and ELA departments. Teaching strategies to meet the needs of diverse learners are used within all regular education classrooms. In this way, the Lowell schools are able to bring all of their resources to bear in the classroom. Students are grouped flexibly according to their current needs, and it is common to see three or more adults working in the classroom with student groups.

The district prioritizes literacy and mathematics by devoting blocks of instructional time to them in kindergarten through grade 8. Teachers receive targeted professional development emphasizing language development and mathematics to enhance classroom instruction. Students are assisted in their classrooms by support staff including coaches, specialists, paraprofessionals, and tutors.

Many of the principals in Lowell participated in National Institute for School Leadership (NISL) training, and formed their own cohort. NISL training is designed to develop principals' leadership abilities to transform their schools into high performance organizations. Interviews with principals confirmed that this systematic training and support for them in their evolving roles as educational leaders has been effective. This initiative established a belief about high expectations for student learning that was evident throughout the district. By ingraining the belief system in the daily operations, the school district has created a climate of acceptance in which all students are welcome, and their diversity celebrated. In this culture, students are challenged and achieve academic progress.

In the judgment of the review team, the belief that all students can learn is the overarching construct that makes a positive difference for students in the Lowell Public Schools.

Lowell has integrated systems that focus the district's resources on the singular mission of raising student achievement.

The entire infrastructure of the Lowell Public Schools is designed to support teaching and learning. For example, the building maintenance department makes the classrooms conducive to learning, and ensures that the common areas are welcoming. A comprehensive professional development program helps teachers design more effective instructional strategies and use data to inform instruction. When vacancies occur, staff are selected based on their desire and ability to move the system forward. Paraprofessionals are trained and deployed to deliver supplemental instruction within classrooms. Licensure and recertification are monitored carefully and effectively. The budget presentations are informative and focus on teaching and learning. To date, the resources have been allocated based on student need.

Administrators are knowledgeable about the interactions of the various systems, and use this knowledge to staff and schedule their schools to better meet the needs of students. Both teachers and administrators understand the need for focusing resources. School Improvement Plans (SIPs) reflect the District Improvement Plan (DIP).

Although the district has systematic practices and procedures, there has been, up to this point, a healthy tolerance for individual school strategies to meet the systems' goals. Because of the integrated systems, resources are targeted for teaching and learning. Students benefit from the conscious effort to marshal all available resources to staff and provision classrooms. Much of the success the Lowell Public Schools have had in raising student achievement is attributable to the deliberate organization of an infrastructure that supports teaching and learning.

The movement toward greater uniformity in the alignment of school goals to district goals to improve student performance in mathematics and literacy has limited the principals' ability to address the wider, more complex needs of students. It has also limited the basis upon which principal performance evaluations are conducted, as these are targeted toward ELA and mathematics performance.

Recently, the district has limited the initiatives in the DIP and the SIPs to two goals: one in ELA and one in mathematics. This approach, which provides a clear, direct focus on the improvement of student achievement in literacy and mathematics, is understandable given the accountability status of many of the district's schools, one of which is a Level 4 school. It also provides clear direction for the allocation of resources.

This approach, however, can be somewhat limiting in the development of SIPs. For instance, the social and developmental needs of students were not addressed in SIPs. Other factors that affect student learning are generally not addressed in the ELA and mathematics goals. The team noted less emphasis on instructional time and content in science and social studies in kindergarten

through grade 8. This approach may result in narrowing of the expertise of the principal, and a narrower view of the future needs of the school.

Principals are better able to meet the academic challenges that face their students when they have the latitude and authority to set school goals that complement rather than merely mirror the broader district goals. In the absence of this authority, the school is limited in promoting the wider intellectual and social development of students.

In the past, principals were able to use their individual expertise to deploy resources to meet students' academic and social needs as they went about meeting student achievement targets; however, the superintendent explained in an interview that the district is moving toward a standardized staffing pattern for the schools. She explained that the district "needs a similar core and staffing pattern in all schools." This will better facilitate budget development and better position the district in future budget discussions. Defending expenditures that are the same across schools is part of a long-term strategy to garner increased financial support for the district. For example, budget documents related to the fiscal year 2011 budget cuts showed that recommended budget reductions included the elimination of one library/media specialist at the elementary and middle school level and two library/media specialists at the high school. The result of this strategy is that under this standardized staffing pattern some principals who have constructed service delivery models based on current instructional and support positions may be unable to maintain those initiatives.

According to interviewees, principal evaluations are based solely on the progress made toward improvement targets in ELA and mathematics. Principals reported that their annual performance reviews focus on student gains. The cover sheet of the evaluations of principals provided to the review team made no mention of their need to develop the skills to manage and lead the fundamental organizational change demanded by the state's AYP improvement targets.

Principals require sustained leadership development to help them transform their schools into high-functioning, high-achieving institutions. The district's narrow focus on instructional techniques may truncate the development of school leaders. Over time, this emphasis may also result in diminished student learning.

Curriculum and Instruction

Lowell's curriculum maps are aligned to the state frameworks, focus on language and literacy, and integrate English Language Proficiency Benchmarks and Outcomes (ELPBO) standards in content areas to enable ELL students to have full access to the curriculum. Ample curriculum materials, resources, and interventions exist in ELA and mathematics from kindergarten through 8th grade, but not in science and social studies.

A review of the kindergarten through grade 8 curriculum documents for ELA, mathematics, science, and social studies, and interviews with teachers and school and district leaders indicated that the district implements curricula aligned to state standards in core content areas. Most

curriculum documents include core knowledge and skills, teaching and assessment examples, evidence of learning, pacing guides, and suggested resources. Teachers and leaders reported and the review team found strong horizontal and vertical alignment for ELA and mathematics through grade 8. Interviewees referenced and curriculum documents displayed the ELPBO standards within the general curriculum, included to ensure that the general curriculum and instruction address the needs of ELL students.

The district provides enough textbooks, resources, and intervention materials to support curriculum delivery in ELA and mathematics. For ELA, almost all elementary schools use Reading Street (Scott Foresman) in kindergarten through grade 4 and a variety of literary genres, mainly in anthologies, in grades 5 through 8. Two elementary schools continue to use a balanced literacy approach with leveled reading materials while adhering to the district's curriculum maps. In mathematics, Investigations in Number, Data, and Space is used in kindergarten through grade 4 and Connected Mathematics Project (CMP) in grades 5 through 8. Teachers and leaders told the review team that the middle school mathematics text is challenging for students who struggle with language issues because it is highly verbal, problem oriented, and conceptual. To address this, teachers are developing strategies to reinforce language and literacy skills in mathematics, for instance by expanding curriculum documents to include mathematics vocabulary and language objectives.

Although both the science curriculum and the social studies curriculum are fully developed, teachers and leaders reported and the review team observed that program materials and resources for kindergarten through grade 8 are often scarce, are not common across classrooms and schools, and are frequently outdated. Teachers reported that in many elementary and middle school classrooms, students do not have their own science and social studies texts, and teachers often used photocopied worksheets for units and lessons. In the 23 science and social studies classes observed, there was little evidence of the characteristics of good teaching in those subjects. The scientific method was only minimally evident, and students were not fully engaged in science lessons. Many social studies classes were teacher-centered rather than student-centered, and teachers rarely asked students to engage in concept formation and higher-order thinking.

The district's widely held belief that all children can learn to high standards, especially with the use of appropriate supports and explicit teaching strategies, guides work to improve teaching, learning, and the curriculum. Toward this end, and over several years, leaders and teachers have jointly established a culture of literacy in the district, and aggressively placed literacy skills at the core of curriculum and instruction for all subjects, in kindergarten through grade 12.

In an innovation, the district unified the ELA and ELL curricula to immerse all students in improving listening, speaking, reading, and writing skills. Most classrooms are filled with words. Words are said to decorate classrooms: They are listed on content-based word walls, attached as labels to classroom fixtures, and form the substance of team building and character building posters found in classrooms for all content areas, not just ELA. Teachers use sheltered content instructional strategies to support both ELL students and all students, based on the belief that

good instruction benefits all learners. The district also ensures that English as a Second Language (ESL) instruction is sufficient to meet state guidelines of 2.5 hours per day for students performing at Massachusetts English Proficiency Assessment (MEPA) levels 1 and 2.

District and school-based leaders and classroom teachers explained to the review team how the curriculum is planned, monitored, and delivered with the input, support, and interaction of multiple stakeholders at both the district and school levels. At the district level, a deputy superintendent for curriculum, instruction, and assessment oversees eight coordinators responsible for kindergarten through grade 12 reading and ELA; K through 12 mathematics; school improvement and accountability; research, testing, and assessment; professional development; early childhood education; high school curriculum and instruction; and the Lowell Teachers Academy. Other key district staff responsible for more than compliance include two district support specialists for ELL, an early childhood support specialist, and the Title I director.

At the school level, principals, assistant principals, elementary literacy and mathematics coaches, middle school literacy and mathematics specialists, teachers, language tutors, and paraprofessionals hold specific responsibilities related to the planning, delivery, and monitoring of curriculum. At each school, groups convene in a coordinated series of monthly meetings, weekly common planning time, grade level meetings, data team meetings, and vertical team meetings for content areas to monitor student achievement data and improve curriculum and instruction. In observed classrooms, it was sometimes difficult to distinguish among classroom teachers, ELL specialists, and coaches.

Supervision, evaluation, and districtwide professional development are intended to improve instruction. Professional development is designed to focus on students' learning needs as well as teachers' learning needs. The curriculum contains goals for student learning, common accountable language, and opportunities to monitor student achievement and curricular effectiveness through the collection and use of data from common formative and summative assessments. However, when the review team observed classrooms in the eight schools that are the focus of this report, instruction was frequently inconsistent and, in a number of cases, in the early stages on the continuum toward excellence.

Nevertheless, there is an unmistakable focus on strengthening the language and literacy skills of a diverse and multicultural student population. With more than three-fourths of students classified as either ELL or Formerly Limited English Proficient (FLEP) and more than two-thirds of students from low-income families, the language and literacy focus addresses all students' primary learning needs and contributes to ELL students' greater proficiency on the MCAS tests than their peers statewide. A common curriculum implemented across schools has also meant that students who transfer within the district either during the year or between years can stay on track. Finally, with a unified approach to curriculum and assessment, teachers and leaders can monitor progress from the smallest unit (the individual student) to the largest unit (the district) and at every level in between with precision, validity, and common purpose.

In the opinion of the review team, the Lowell curriculum is designed to provide students with core content that is aligned to state standards and geared to the needs of students with language and literacy needs. It ensures that teachers have specific guidelines for what to teach and how to teach in their content areas.

The district is currently engaged in a number of instructional improvement strategies, including the student-based Cycle of Inquiry, to build teaching capacity and to better match teaching practices to student learning needs.

The district has systematically and sequentially introduced strategies to improve teaching and learning and to create a culture of continuous improvement. One example of this is the Lowell Teachers Academy (LTA). The Academy works with new teachers during their first three years of service to support and challenge them in a series of activities and courses, often offered for graduate credit. In the first year of service, new teachers work with an experienced mentor teacher who provides informal support through classroom visits and monthly meetings at each school. First year teachers also participate in a course on the principles of effective teaching and student learning taught by district leaders. These principles were said to be the qualities and characteristics used to supervise and evaluate instruction, although the review team did not examine teacher evaluations during the site visit.

In their second and third years, new teachers choose from a series of professional development courses designed and delivered districtwide that develop tools and practices for teaching the district's diverse population. Among these are trainings in the four categories intended to help teachers better understand and teach ELL students, and courses in cultural diversity, literacy, technology, backwards design, and contemporary issues in curriculum. One new teacher described a districtwide course to help teachers work more effectively with students who have recently faced a traumatic life experience, such as a being in a war zone or refugee camp.

In other initiatives, principals, mathematics and literacy coaches at each elementary school, and mathematics and literacy specialists at the secondary level meet with teachers during common planning times. These planning times include weekly grade and subject level meetings and monthly faculty meetings to discuss and adjust pedagogy and curriculum. Teachers gave examples of the use of these times, including the development of mathematics strategies and worksheets to help students solve word problems more sequentially. Teachers also described sharing strategies to help students learn study skills such as two-column note taking, a top down web, and summary writing. Leaders described efforts over three or four years to improve teachers' content knowledge and pedagogy in mathematics and ELA. For example, the district has taught phonology, semantics, pragmatics, and comprehension to ELA teachers. An adolescent literacy support specialist helps middle and high school teachers address literacy issues for older newcomer students and other students who struggle with literacy in adolescence. In other districts, these are students who might be at risk of dropping out of school. Technology has also been harnessed as an improvement tool in innovative ways. Course based wikis and websites meet students at the threshold of their technological world so that lessons appear more relevant and engaging.

A new instructional improvement strategy implemented in 2009-2010 was designed to match student learning needs explicitly with appropriate teaching methods. The Lowell Teachers' Association (LTA) also supports this process, entitled the Cycle of Inquiry. The model was collaboratively developed by the teachers' union and the superintendent to empower teachers to improve instruction using their professional expertise and judgment rather than through a top down improvement initiative. One million dollars in stimulus funding supports the initiative; the process resembles medical instructional rounds.

Under this initiative, a teacher known as the pioneer teacher identifies an individual student with a specific and challenging learning need. Often this student is an ELL or FLEP student. Through observation and conferencing with grade level or subject area colleagues in a small Professional Learning Community (PLC), the teacher develops a strategy to support the student's needs, designs lessons using that strategy, and collects student-based achievement data as evidence of success. As the teacher implements new lessons, reviews data, and tests assumptions, he or she debriefs with colleagues, most having observed the lessons through classroom learning walks. Through a process of trial and error and conferencing, the PLC attempts to resolve difficult pedagogical challenges, and promising outcomes can be generalized to a broader population.

The Cycle of Inquiry is intended to be teacher-driven, and the involvement of principals and assistant principals in offering support and guidance varies across schools. Most have allowed teachers to take the lead, recognizing the need to locate responsibility for problem-solving at the classroom level. They have thereby encouraged teachers to use their collaborative strengths to improve instruction.

The district has created an overlapping system of support, supervision, and professional development to help teachers strengthen their teaching skills to meet the needs of a heterogeneous student body. Addressing the multiple needs of this diverse population is challenging. Over time, the district has addressed these successfully, often one by one. With continued perseverance, the district can expect continued improvement and more consistency in instructional practice.

Although the district has clearly defined good instruction and many teachers have experienced district-based professional development on effective strategies to teach ELL students and other students with diverse learning needs, instructional practice in observed classrooms often consisted of a narrow range of techniques, lacked differentiation, and missed opportunities to engage students in higher-order thinking and reasoning.

The district's clear expectations for effective teaching require teachers to implement a standards-based instructional model using content-based teaching strategies targeting students with significant language, literacy, and learning needs. At the school level, principals and most teachers are also clear in describing good instructional practice. Teachers new to the district stated that Lowell's expectations for teaching are addressed in the LTA's initial course for first-year teachers. Over time, the district has offered professional development such as Category training and training on a sheltered instruction observation protocol, as well as other courses to

equip teachers to improve students' language skills and content knowledge. Nevertheless, the quality of instruction varied widely in kindergarten through grade 8 in the eight district schools observed by the review team.

During the site visit, review team members observed for 20 minutes in 122 classrooms including 57 ELA classes, 42 mathematics classes, and a combination of 23 science and social studies classes. During each observation, review team members rated instruction for 15 characteristics associated with good teaching. Three describe classroom organization and twelve address instructional design and delivery. For each characteristic, review team members judged whether there was solid evidence, partial evidence, or no evidence that the characteristic was embedded in practice. An unusually high percentage of the characteristics were scored partial evidence, indicating that instruction demonstrated the characteristic to some extent, but the evidence was not strong and compelling.

Classroom Organization

Observed classrooms showed strong evidence of good practice in the category of classroom organization. In 76 percent of classrooms there was solid evidence and in 24 percent partial evidence that classroom climate was characterized by respectful behaviors, routines, tone, and discourse. Students and teachers spoke politely and respectfully, most students raised their hands before speaking and participated in lessons, and many classroom environments demonstrated respect for different cultures and languages.

There was solid evidence in 71 percent and partial evidence in 20 percent of observed classrooms that available class time was maximized for learning. This means that most teachers established purposeful and well-paced lessons, students followed classroom routines well, minimal time was spent on organizational details, and students transitioned smoothly between learning activities. For example, in a grade 5 mathematics class, content, learning, and language objectives were all posted. A row of yardsticks was laid end to end across the front of the room and parallel to them was a row of rulers laid end to end. The teacher and the students were in the midst of converting yards to feet, and feet to inches for a lesson on equivalent measures using different scales. The teacher frequently told the students to remind themselves by going to the word wall. Thought processes were set by the teacher who computed conversions on the board with students participating and adding explanations. Students worked at solving new problems and explained solutions to one other.

In 44 percent of classrooms, learning objectives, including relevant vocabulary and language objectives, were solidly evident and aligned to ELPBO standards. However, in 42 percent of classrooms, there was no evidence of objectives either in writing or expressed orally. To be considered as solid evidence, objectives must be stated and connected to one or more big ideas from previous learning, or provide students with a rationale for learning. Often, objectives can be revisited at the end of the lesson as part of the summation. In only one lesson did observers note that a teacher closed the lesson with a summary.

Instructional Design and Delivery

Instructional design and delivery were rated as solid for characteristics related to English usage within students' proficiency and developmental levels. In 91 percent of observed classrooms, there was solid evidence, and in 7 percent of observed classrooms, there was partial evidence that content was presented within students' English language proficiency and developmental levels. Teachers usually spoke slowly and clearly and used gestures, body language, and modeling. They often pre-taught vocabulary and provided students with vocabulary support such as lists, word walls, easy-to-understand definitions, or synonyms. In an elementary ELA class, the teacher insisted that students respond in complete sentences, beginning each with, "I think that…" She then posed questions about the story, "Save the Ocean," asking whether it was fiction or nonfiction. She then asked them to explain what they already knew about turtles and then about whales. After this pre-reading exercise, the teacher directed the students to read the story by themselves, stating that they could look at the chart, study it and answer the questions themselves, and highlight the answers in the text. While the class worked independently, the teacher assessed individual students using running records.

In 68 percent of classrooms, there was solid evidence and in 15 percent, partial evidence that supplemental materials were aligned with students' developmental levels and levels of English proficiency. ELL students and other students had access to materials presented in a variety of ways, such as pictures, manipulatives, graphic organizers, and multimedia. In a grade 4 mathematics class, bar graphs were displayed using symbols to illustrate mathematical quantities. The bars on the graphs were illustrated by baseball motifs. A line of baseball gloves represented the number of Red Sox wins and losses; a line of crossed bats represented the number of strikeouts; and lines of baseballs represented the number of homeruns for the Red Sox compared to other teams. Each baseball was equivalent to two homeruns.

In 62 percent of classrooms there was solid evidence and in 29 percent of the classrooms partial evidence of teachers linking academic concepts to students' prior knowledge and experience. Instruction in these classrooms encouraged students to use cultural, linguistic, and personal experiences in classroom activities to engage in content. Before a journal exercise in a kindergarten class, the teacher asked students to describe aloud what they did on the weekend. They then wrote and illustrated short accounts of their weekend activities, assisted by a paraprofessional or the teacher.

There was solid evidence of teachers embedding opportunities for students to apply new knowledge and content in lessons 43 percent of the time. Students were not frequently given multiple opportunities to apply knowledge in meaningful contexts such as dialogue, activities, experiments, and projects. Students were rarely observed presenting their work to the class through oral presentations, illustrations, or demonstrations. Instruction, activities, and assessment tended not to integrate listening, speaking, reading, and writing skills for all language proficiency levels.

In 42 percent of classrooms there was solid evidence and in 39 percent partial evidence of students articulating their thinking and reasoning. Students display this characteristic by making sense of classroom activities, justifying their conclusions, expressing agreement or disagreement about concepts or proposals, and evaluating their learning and thinking processes. They also display this characteristic by engaging in pre-writing, concept mapping, role playing, or other activities that support thinking and reasoning. An example of missed opportunities was observed in a second grade class learning about rectangles. The teacher grouped students in pairs and asked them to share the answers to questions she asked, but did not pause long enough to allow them the opportunity to answer. At one point, the teacher gave an answer, and asked the class for a show of hands to determine agreement or disagreement. When many students indicated agreement, the teacher asked them why they agreed, but answered the question herself before they could respond.

Review team members found solid evidence that questions required students to engage in a process of application, analysis, synthesis and evaluation in 41 percent of the classes observed. This attribute is evident when students use higher-order thinking to demonstrate knowledge of content, and when teachers ask probing questions that challenge students to explore concepts and big ideas and when they allow wait time for students to brainstorm, collect their thinking, rehearse responses, collaborate with a peer, and write before responding. In one observed classroom, students were demonstrating these qualities in a fluid discussion of a child custody case.

In 36 percent of classrooms, there was solid evidence of teachers using a range of instructional techniques. In many observed classrooms, teachers' voices were more prevalent than students' voices. Although groups or centers were used in a number of classes for students to participate in multiple learning activities, rarely was group composition based on students' prior knowledge, linguistic or cultural experience, or previously learned content. Usually, all students cycled through the same activities without differentiation for their specific learning needs.

In only 28 percent of classrooms were students inquiring, exploring, or problem solving together, in pairs or in small groups. Often students were arranged in small groups to complete classroom tasks, but they worked independently rather than collaboratively to complete a task or exchange ideas with neighbors or group members.

The strong evidence of classroom organizational characteristics indicates that teachers have mastered the difficult processes of classroom management. On the other hand, although the district relies on a standards-based curriculum and instructional models, teachers did not uniformly post and review classroom objectives for content, vocabulary, and language-based learning to maximize opportunities for student understanding and success. Although the district collects and analyzes multiple forms of achievement data, the data was not used routinely to group students at their learning levels and move them to higher levels of achievement. Group work and class work often did not encourage students to reason. Teachers posed literal questions, and student responses were often factual rather than conceptual, and expressed in just a few words rather than in complete sentences.

In the judgment of the review team, while leaders and teachers appear to have a clear and common understanding of the qualities of excellent instruction, the variations in practice and the amount of solid evidence in classroom observations of some of these characteristics in Lowell indicate a system that has not yet fully implemented its vision.

Assessment

Lowell continuously analyzes and responds to internal and external data on the adequacy of its programs, services, and protocols in order to increase the effectiveness of teachers' instruction and advance student proficiency. In one initiative, the district is taking steps to make the classroom the center of school improvement efforts and the classroom teacher the primary change agent.

Central office administrators told the review team that Lowell designed and implemented three initiatives in 2009-2010 based on an analysis of data. The district analyzed data from the following sources: the Teaching, Learning and Leading (TeLLS) survey, the United Teachers of Lowell surveys, the Center for Resource Management Literacy Audit, and the ESE review of the District Plan for School Intervention (DPSI). The initiatives resulting from the data analysis included professional learning communities, data-driven literacy instruction at the middle school level, and use of the district's formative assessments diagnostically to identify student needs and to plan prescriptively targeted instruction.

Lowell teachers, on the 2008 TeLLS survey, reported that they were neither empowered to make educational decisions, nor recognized as educational experts. Specifically, 49 percent of the responding teachers strongly disagreed or disagreed somewhat with the statement that teachers were meaningfully involved in decision-making about educational issues, and 38 percent strongly disagreed or disagreed somewhat with the statement that the faculty had an effective process for making group decisions to solve problems. The results of the United Teachers of Lowell faculty surveys conducted in 2007 and 2008 were consistent with the TeLLS survey.

At the same time, administrators determined that teachers were not central to the ESE Learning Walk procedure the district was using to improve the effectiveness of instruction. When asked by the review team, teachers confirmed that they were not actively engaged in the walkthroughs because the focus was on consistency of implementation of a particular aspect of instruction districtwide, rather than on struggling students in their classrooms. One said that the teachers had been more passive recipients of findings than active problem solvers during and after walkthroughs.

In response to these concerns, Lowell developed and began to implement its own process for professional collaboration and learning in 2009-2010. During the summer of 2009, Lowell administrators and teacher representatives attended a four-day workshop, including modules on communication to build a collaborative culture, team building, and data-informed decision-making, sponsored by the Teachers' Center of the American Federation of Teachers.

Administrators and teacher representatives created a district protocol for professional collaboration and learning based on this workshop and related research.

According to central office administrators, the Lowell protocol builds on the knowledge of curriculum, pedagogy, and student assessment teachers have acquired through the district's professional development program, by providing a framework for team building and a process for using student assessment results to plan instruction and evaluate its effectiveness.

Through piloting of a Cycle of Inquiry initiated in the second half of the 2009-2010 school year, teachers at a grade level collaborated with their schools' instructional coaches to help one student making unsatisfactory progress. Principals did not participate in the Cycle of Inquiry unless invited by the grade level teacher teams. Each grade level team maintained a portfolio to document its work, consisting of artifacts such as lesson plans, work products and assessment results. Teachers told the review team that the new process was anchored in the classroom and promoted greater reflectiveness and collaboration. The district was to evaluate the pilot program at the end of the 2009-2010 school year, and intended to expand the scope to include more students in succeeding years.

In the 2009 DPSI review, an ESE team recommended clarifying the roles of the district instructional coaches and increasing their accountability for improving teaching and learning. In response, the district sponsored data summits conducted by the language and literacy and mathematics instructional coaches in the fall of 2009. The intent was to help teachers use data to plan and evaluate instruction. For example, at the mathematics summit, grade level representatives learned to analyze data according to a protocol; increased their knowledge of the effects of limited vocabulary and experience on students' content knowledge; and learned strategies for teaching mathematical concepts and vocabulary explicitly to ELL students. The grade level representatives subsequently shared this learning with their colleagues.

The Center for Resource Management Literacy Audit conducted in 2008-2009 found that teachers did not use data to inform instruction in literacy, especially at the middle school level, and did not scaffold reading tasks as a strategy for meeting the needs of diverse learners, including ELL students. In response, Lowell engaged an adolescent literacy specialist in 2009-2010 to help ensure that ELL students attain proficiency in English before entering high school. This specialist taught demonstration lessons and helped grade level teachers develop a broader repertoire of strategies to address a range of learning style differences. In addition, the district coordinator of language and literacy conducted workshops to help elementary and middle school teachers diagnose students' remedial needs with the district's common literacy assessments, and acquire a common vocabulary of terms to characterize these needs. In interviews with the review team, Lowell teachers strongly endorsed the effectiveness of these workshops.

Lowell is systematic and strategic about using data to identify needs, and proactive in addressing them. These practices have resulted in consistent improvement in the performance of student subgroups, especially ELL students, as evidenced by this review team visit to look at the promising practices that led to strong ELL student performance at eight Lowell schools.

Lowell makes systematic use of student assessment data to inform instruction in kindergarten through grade 8. The consistent use of data benefits all students, especially struggling students and the district's significant population of ELL students.

The 2005 report by the Massachusetts Office of Educational Quality and Accountability (EQA) stated that instruction in Lowell was planned and evaluated using student achievement and performance data in kindergarten through grade 8. This review team found that Lowell has improved the effectiveness and efficiency of its assessment practices at this grade span. While instructional coaches currently assume the primary responsibility for collecting and preparing the data and interpreting the instructional implications, Lowell has begun to train teachers to translate assessment results into instructional plans. One administrator stated, and the others agreed, that Lowell teachers have excellent management and delivery skills, but need more training to diagnose students' needs differentially, check immediately for student understanding, and prescribe growth-promoting learning experiences.

Administrators told the review team that the district revised and reduced its core ELA assessment battery in 2009-2010 in order to improve its alignment with the standards in the state frameworks and the local curriculum, increase the usefulness of the information for instructional planning, and decrease the infringement on instructional time. For example, when Lowell adopted the Fountas and Pinnell Benchmark Assessment System for kindergarten through grade 4, it made administration of the unit tests from the Scott Foresman Reading Street series optional. The Fountas and Pinnell assessments provide more relevant and useful information than the unit tests, including independent and instructional reading levels, class profiles, and recommendations for grouping students and selecting the most appropriate books from the leveled libraries.

Lowell will expand the scope of the Group Reading Assessment and Diagnostic Evaluation (GRADE) in 2010-2011 from grades 4 and 5 to grades 4 through 8, replacing the Scholastic Reading Inventory (SRI) at this grade span. This decision was based on the high correlation of the GRADE with the state frameworks and the local curriculum, and the critical diagnostic information it provides.

The district's mathematics benchmark tests are based directly on the standards in the state frameworks and the local curriculum. Both teachers and administrators confirmed the instrumental value of these assessments for progress monitoring and instructional design. They went on to attribute the district's steady growth in mathematics proficiency to the use of these measures. Both teachers and administrators told the review team that the changes in the district's literacy assessment battery had rendered it more comparable to the mathematics battery. They added that these changes were intended to enhance growth in student literacy skills by providing teachers better diagnostic and monitoring tools.

All Lowell students, including ELL students, are subject to the district's core assessments. Administrators and teachers told the review team that the presenters of the data summits in ELA and mathematics held in the fall of 2009 identified some common needs of ELL students derived from assessment data and discussed strategies for improving their learning. The ELA workshops

for elementary and middle school teachers also emphasized the needs of ELL students. The techniques included scaffolding and activities intended to increase vocabulary development and understanding of idiomatic language.

Lowell is working toward consistent use of formative and summative assessment for instructional planning in order to make teachers' lessons more purposeful and relevant to students' individual needs. Lowell students have made progress, especially in mathematics, where the assessments are highly correlated with the standards in the state frameworks and the local curriculum. The district has also identified and addressed the specific needs of ELL students in its content area workshops. Lowell's deliberate and explicit emphasis on the needs of ELL students has resulted in consistently improving MCAS test proficiency rates in comparison with the statewide rates.

Lowell collects data on ELL students' language acquisition and academic skill development from both state and local assessments, and uses this information effectively to improve instruction, programs, services, and results.

Administrators who make up the Lowell ELL leadership team described the school registration procedure conducted at the district's Parent Information Center: When the parent or guardian indicates on the home language survey that a language other than English is the primary language spoken in the enrolling student's home, a certified ELL teacher assesses the student's English language proficiency with the Language Assessment Scales (LAS). When the results confirm limited English proficiency, the student's academic skills are assessed by the lead ELL teacher in the assigned school to determine whether the student is able to perform ordinary class work in English.

Upon determining that the student is unable to perform ordinary class work in English, the ELL lead teacher identifies the student as an ELL student and subsequently enters the student's name and coding in the district's data management system. The lead teacher then informs the parent or guardian about the programs and services available to ELL students and makes recommendations. The parent or guardian ultimately chooses the manner of service provision, or waives services.

In interviews with the review team, central office administrators, instructional coaches, and principals explained how the district collects, sorts, disseminates, and uses data from multiple sources including the MEPA, the MELA-O, the MCAS tests, and locally administered assessments. The results are available on the district database by individual student, subgroup, class, grade, school, and district. Principals and program directors may request customized reports sorted by any of the fields.

For example, the review team reviewed a report on the spring 2009 MEPA results for one district elementary school including the names and grade levels of the students, their years in the United States, proficiency levels, and MEPA results in reading, writing, speaking, and listening. Another report of district grade 4 MCAS Mathematics test results from 2006 through 2008 showed the trend in skill acquisition in mathematics according to an item analysis including the item type

correlated with the framework standard and Lowell power standard. This report also showed the percentage of students answering the item correctly by subgroup as compared with the statewide results.

Administrators and instructional coaches told the review team that data analysis leads to targeted recommendations for improving instruction. For example, the team examined a list of 16 instructional strategies developed by the coaches to increase the proficiency of ELL students in mathematics. These included differentiating clue words having more than one meaning, writing symbolic notations and equations in words, and acting out or using visual aids to expand the modalities of instruction. These strategies were introduced at the district's data summits and discussed more fully with teachers at subsequent grade level and departmental meetings. In interviews with the review team, teachers attributed the success of ELL students to the district's standards-based, needs-driven instruction featuring highly appropriate methods and strategies.

Lowell has efficient procedures for the identification, assessment, placement, and monitoring of ELL students in pre-kindergarten through grade 8. The district has a powerful and versatile database for progress monitoring, and uses instructional coaches to help teachers translate data into instructional plans. This has enabled teachers to increase student achievement by identifying root causes, prescribing interventions, adapting instructional materials, and grouping students with similar achievement gaps or learning patterns.

Human Resources and Professional Development

A review of the parts of evaluations made available to the review team showed that principal evaluations were not instructive in a way that would promote professional growth.

In a review of the redacted evaluations of the eight principals from the schools the review team visited, the team determined that the superintendent evaluated those principals in 2009-2010 based on each school's achievement of mathematics and literacy goals. On the evaluation instruments, the principal lists actions taken under grade level action steps. The evaluator checks off either "meets" or "does not meet" the goal under both the mathematics and literacy sections of the evaluation document. The principal adds comments in the space provided on progress made toward the goals. The superintendent also adds comments at the bottom of the evaluation document.

While all comments reviewed were complimentary and indicated that the superintendent enjoyed working with each of the principals, there was no evidence that the superintendent used the Principles of Effective Administrative Leadership as required under 603 CMR 35.06(1)(b). In using these reference would have been made to such components as effective instructional leadership, effective organizational leadership, and the promotion of equity and appreciation of diversity. The documents made available to the review team did not include recommendations to promote the professional growth and overall effectiveness of the principals. As all of the

evaluations received were redacted, and team members were unable to review what were described as the artifact portions of the evaluations housed in the principals' personnel files, there was no way to definitively determine whether suggestions for improving professional growth had been made.

One evaluation had action steps and comments attached. The remaining seven consisted only of the first page, on which the superintendent had made summary comments about their working relationships. It is possible that the artifacts portions of the evaluations included suggestions for the professional growth of the principals, but these were not provided to the review team. The parts of the evaluations that the team saw did not provide evidence that they served to promote the improvement of administrative performance.

Professional development programs have provided teachers with the instructional skills and strategies necessary to meet the individual needs of all students. Targeted professional development is linked to the growth of ELL student achievement.

In support of the notion that every teacher is a teacher of ELL students and that all students can achieve at high levels given appropriate support, the district has developed and implemented a comprehensive professional development plan to address the need for all teachers to acquire expertise in the area of sheltered English instruction (SEI). Towards that end, the district had previously provided training in a sheltered instruction observation protocol for most of its staff, and since the 2004-2005 school year has offered teachers SEI training. At the time of the review, the district had provided SEI training to teachers as follows: Category 1 training for 472 teachers; Category 2 training for 702 teachers; Category 3 training for 431 teachers; and Category 4 training for 86 teachers. In addition, numerous professional development opportunities were provided by the district onsite. These included analysis of student data, working with coaches, common planning time, early release, and department and faculty meetings. The Cycle of Inquiry approach is the most recent onsite professional development opportunity.

It was reported to the review team that, for the past five years, the district's professional development programs provided training to support goal fulfillment in the two primary areas of literacy and mathematics. Interviewees stated that both the sheltered instruction observation protocol and SEI trainings did much to advance progress toward goal attainment. Professional development in the district is both voluntary through paid workshops at the teacher's hourly rate, and mandatory through the Lowell Teachers Academy. The mandatory program includes ELL courses and Category training. Other professional development offerings include the district's three-year induction program for new teachers through the Lowell Teachers' Academy. The SEI trainings are incorporated as part of that program. In addition, each of the district schools conducts nine one-hour faculty meetings which principals use for professional development and collaborative work on curriculum refinement. The district also uses Brigade Days, a strategy that provides in-school professional development time for grade level teams and departments to engage in both horizontal and vertical curriculum work, lesson study, and the sharing of strategies in both mathematics and ELA. On Brigade Days, the district engages qualified

substitutes in order to release teachers to participate. Recently, Brigade Days were used with data teams to change instructional focus, although the practice is used less frequently at present due to the decreased availability of funding.

During the 2009-2010 school year, the district coordinator for reading and ELA and the middle school literacy support specialist presented 30 sessions for teachers in kindergarten through grade 4 and 12 sessions for teachers in grades 5 through 8, as a means of building capacity within the district. In addition, district staff conducted 12 literacy data summits to increase staff capacity to review student data. Monthly professional development sessions are also provided to instructional coaches to support their efforts to improve instruction in language and literacy.

The district's mathematics coordinator conducted professional development for the elementary and middle school mathematics support specialists. The district also conducted 12 mathematics data summits. In addition, the coordinator provides monthly professional development sessions for mathematics resource teachers to support their efforts to improve instruction in mathematics. While still in the process of building internal capacity at the time of the review, the district continued to target the use of external consultants as needed with the goal of eventually decreasing reliance on those sources.

A number of factors go into determination of priorities for professional development including analysis of MCAS test scores, results from internal assessments, including the SRI, Galileo, the MEPA, the MELA-O, and Fountas and Pinnell, and information gathered at data summits.

Administrators in the district receive professional development at leadership meetings conducted by a team of administrators from the schools and the district's central office, coordinated by the deputy superintendent. In addition, in the past, professional development activities included a required, onsite NISL course for kindergarten through grade 12 administrators, principals, and assistant principals; trainings on effective supervision and evaluation of both new and veteran teachers; and trainings on supporting curriculum needs and teacher inquiry.

Although the district had not conducted any professional development program evaluations at the time of the review, it had just engaged the Public Consulting Group (PCG) to develop a logic model to ensure that the strategies acquired through professional development are being implemented in district classrooms.

In the judgment of the team, professional development is one the district's strengths. In conversations with district personnel at all levels, review team members were told that staff perceive professional development to be of great value, especially the school site activities. And teachers were emphatic in interviews with the review team about the value of their sheltered instruction observation protocol and SEI training in improving their instructional skills.

The district's comprehensive professional development strategy of providing all teachers with the skills and strategies necessary to address their students' instructional needs through a non-categorical service model is a reality. The targeted professional development is integral to the

success that the identified schools in the district have seen with respect to the level of ELL student achievement as compared with their peers statewide.

Student Support

Central office leaders combined the ELA and ELL departments, and literacy and language instruction are blended in the schools.

The DIP documents the reorganization of the central office to provide an integrated service model consisting of interventions that yield the most positive results. In 2008-2009, the superintendent combined the ELA and ELL departments. The district coordinator for reading and ELA reports directly to the deputy superintendent, a former bilingual teacher. ELL teachers and literacy specialists work together to provide language-based support for all students, including ELL students. When students are grouped by reading ability in elementary classrooms, ELL students may work with others who read at the same level but are not ELL students. ELL students may also be served by a literacy specialist. Observations and interviews confirmed that there was no separation of responsibility for students by category. All teachers were responsible for all students, and this core belief originated in the central office.

The combination of literacy and ELL services under the deputy superintendent and the coordinator ensures that regular education, ELL, and special education students participate equally in the services available to develop literacy. The deputy superintendent is a strong advocate for ELL students, and this has contributed to the success of these students in Lowell.

The district has trained a significant number of its teachers to shelter instruction. The scope of these trainings has not included the details of the ELPBO, according to classroom observations.

According to interviews of administrators and teachers and a review of documents, the district has trained many teachers to shelter instruction; however, the percentages vary widely by school. At the time of the review, between 70 and 75 percent of the teachers in five of the "gap closer" schools had received at least Category 1 and 2 training. Many of these teachers have also received Category 3 training. While almost all Shaughnessy School teachers had received Category 3 training, only half of the teachers at the Robinson and Washington Schools were trained at that level. At Lowell High School, only 35 percent of the teachers had taken training in Categories 1 and 2.

Lowell began to offer professional development in a sheltered instruction observation protocol before ESE began its Category trainings. The district currently offers Category training through the Lowell Teachers' Academy, ensuring that all new teachers receive this training in their second year of mentorship. Few teachers have received Category 4 training. Classroom observations confirmed that many teachers are employing sheltering strategies. These include using pictures to teach vocabulary, pre-teaching vocabulary, and use of word walls. Content and language objectives were posted on the board in some classrooms. Professional development in

balanced literacy and differentiated instruction provides teachers strategies to use with ELL students. In 2009-2010, the district coordinator for reading and ELA provided a three-session workshop on phonemic awareness, semantics, and pragmatics for all elementary teachers. The Keys to Literacy course offered by the district to upper elementary through high school teachers provided strategies for helping students to organize their thoughts, take notes, and summarize.

The professional development programs intended to help teachers to shelter instruction did not include a comprehensive overview of the ELPBO. Knowledge of the ELPBO helps teachers scaffold and differentiate instruction and provide phonemic, semantic, idiomatic, and other language-specific information to students. Training in sheltered instruction is intended primarily to help teachers develop strategies to teach ELL students content. This training does not include the theory and pragmatics of applied linguistics. In interviews, principals and teachers told the review team that they were not familiar with the ELPBO, although classroom practice reflected the benchmarks and outcomes to some degree. Principals stated that they knew what was contained in the ELPBO but told the review team that the document was too lofty and impractical for regular use. Principals stated that they ensure that teachers adhere to the general prescriptions in the ELPBO through walkthroughs and teacher evaluations.

Observations and interviews confirmed that all teachers were aware that a significant number of Lowell students struggle with language and academic vocabulary. The use of sheltering strategies helps ELL students and other students with language and vocabulary deficits. While there was strong evidence that Lowell teachers focused on language and literacy acquisition, there was little evidence that they differentiated and scaffolded instruction based on an understanding of the interaction between the levels of language proficiency and the literacy objectives set forth in ELPBO.

The inclusion of ELL students in regular education classrooms benefits all students academically and socially.

The mainstreaming of ELL students exposes them to the language-rich environment of the typical classroom. Teachers follow the regular curriculum and use sheltering strategies to help ELL students participate. ELL students have the opportunity make gains in literacy and language through the content areas of history, mathematics, and science in general education classrooms. Teachers attributed the success of ELL students in part to wide reading of literature, engaging in the process of making meaning from reading, and language modeling.

ELL students benefit from the general curriculum provided by licensed teachers. In middle school, for example, an ELL student is enrolled in science with a teacher licensed in science and will learn all the content that the regular education students learn. This is preferable to receiving science instruction from an ELL generalist, unlicensed in science. Regular education students also benefit from the different perspectives and cultures that ELL students bring to discussions of history, literature, or national holidays.

In interviews, teachers often stated that every teacher owns all of the students. ELL students receive the same interventions as other students in the classroom. Formative assessments such as

the SRI and Fountas and Pinnell are used to assess literacy skills development. When formative assessment reveals that an ELL student needs additional literacy instruction, the services are provided. Beginners may receive their mathematics intervention in the ELL classroom. ELL students benefit from deployment of personnel based on assessed need.

Teachers and principals told the review team that ELL students benefit from placement in regular education classrooms. The more advanced ELL students serve as role models for the less advanced, exemplifying that it is possible to learn English and succeed in school. ELL students support each other in class. The more proficient students will sometimes translate from English to the native language of less proficient students to ensure that they have acquired information. Teachers told the review team that ELL students do not let their peers use lack of proficiency as an excuse not to try.

Socially, students of every race and background are classmates. Classroom observations, teacher comments, and parent interviews indicated that ethnic and language lines blend. Students have friends from many different backgrounds and enjoy learning about other cultures. Schools celebrate differences with presentations, exhibitions, films, and other activities that explore the countries of origin of Lowell students. The district does not separate students by language or background, and students do not separate themselves.

As regular education classroom members, ELL students gain access to the curriculum and a language-rich environment for English language acquisition. Because they are with other students who have succeeded through the same process, they have models of achievement and a source of help. In addition, they are able to avoid the stigma of being different since they are in the mainstream classroom and enjoy many activities outside of class with their English-speaking classmates. English-speaking students benefit from the cultural diversity of their learning environment and the different perspectives that ELL students may bring from their native lands. The mainstream model truly benefits all students.

Many ELL students do not receive adequate ELD instruction or support.

Several schools in Lowell receive the newcomer populations requiring more intensive English language services. These schools offer beginners the time needed for ESL instruction. Some also offer sheltered instruction rendered by ELL teachers, and have a teacher, paraprofessional, or tutor who speaks the language of the majority of students assigned to the school. However, in interviews, principals and teachers told the review team that after years of cost cutting, many schools across the district have had to make do with only the staff they have. The teacher/student ratio for ELL students is not equivalent from school to school, and administrators acknowledged that ELL staffing does not always coincide with the extent of services needed by the school population. In some cases, ELL students receive only one half hour of pull-out instruction in English daily. The most recent ESE Coordinated Program Review (CPR) of Lowell documented this disparity.

Teachers and principals frequently stated that the district does not fully meet the needs of intermediate level students. Central office administrators expressed concern that intermediate

students do not make expected progress because they are missing an essential component of the language acquisition process. Students at the intermediate level and higher often do not receive sufficient ELD instruction. When students learn a second language, they first acquire Basic Interpersonal Communication Skills (BICS), then Cognitive Academic Language Proficiency (CALP). Students are usually placed in the mainstream when their BICS allow them to engage in routine conversations about everyday topics. CALP takes longer to develop. Students proficient in cognitive academic language read, write, listen to, and discuss information that is dense in content, cognitively demanding, and context-light. In addition, intermediate students often lack understanding of American culture, traditions, and schools. For example, although teachers may anticipate that students may not know anything about Thanksgiving, it may not occur to them that a 5th grade student does not understand how to complete a Scantron answer sheet for a standardized test.

Lowell interviewees acknowledged that intermediate students who cannot progress because of a language deficit are often underserved. Beginners are usually given priority for the services of ELL teachers. As a result, tutors may instruct intermediate students rather than ELL teachers. In some cases, all of the instruction for intermediate students is rendered in regular ELA classrooms. The district offers a few English language instruction extracurricular or summer programs, but ELL students are in competition with Title I, special education, and regular education students for admission.

Lowell has insufficient staff to provide ELL services in some schools, especially services for ELL students at higher proficiency levels. These students are disadvantaged when they lose valuable months and sometimes years of instruction because the appropriate interventions are not available in a timely manner. ELD instruction is also insufficient to meet students' needs in some schools.

In general, the eight schools visited in the district make limited special outreach to the parents of ELL students.

According to the January 2009 Literacy and Learning Audit for Lowell Public Schools, most teachers did not believe in the importance of developing partnerships with parents to support student learning. The report also documented few procedures in place to facilitate home-school communication with the parents of low-performing students. The 2007 CPR report stated that recruitment of parents of ELL students for school functions such as parent meetings, field trips, and open houses varied by school. Interviews with parents, teachers, and administrators confirmed the persistence of these problems.

The participation of the parents of ELL students in the schools and in the education of their children is constrained by language barriers, their heavy work schedules, and their cultural view about leaving education to the professionals. Nonetheless, it is in the best interest of ELL students for parents to be involved in their child's education and to understand what happens in school.

Although many teachers and administrators stated that routine notifications of school events do not elicit parent participation, the review team found that there is limited outreach, mostly by part-time school liaisons. Principals told the review team that school social workers are helpful to ELL students and their families, increasing school and home communication. Interviews with parents, teachers, and administrators confirmed that translation services are not readily available. The school system does not translate report cards for parents. In addition, the schools translate very few of the notices sent home to parents. Notices deemed important are usually stamped with a message in several, but not all, of the home languages, alerting parents to find someone to translate them. Administrators told the review team that translators are available at only a few parent events. The review team also found that there was nothing on the website to help non-English-speakers access school information about the ELL program.

The Lowell Public Schools have not been successful in increasing the engagement of ELL parents. Although in some of the schools visited ELL parents stated that they feel welcome, the review team found that it is difficult for them to participate meaningfully in their child's education. The district provides insufficient translation services. The limited response of ELL parents to general notices or invitations to the occasional event planned for them has led to the perception that parents are not interested in participating, and apparently discouraged more active outreach. However, the review team found that schools do not use all of the tools available to them to engage parents, including technology, the Internet, and the translation of routine documents such as the report card, in order to bring parents into a dialogue.

The Lowell collaborative model of addressing the instructional needs of all students with generic interventions increased the CPIs of ELL students to levels similar to state levels; however, special education students under the same model have CPIs significantly lower than those of special education students across the state.

The district has moved to address the literacy needs of all students under a unified system of service delivery. The district has trained teachers to use strategies in their classrooms that represent good instruction, and assessment data is used to determine the instructional and intervention needs of individual students, irrespective of subgroup. This seems to be an effective practice with regard to ELL students. As Table 4 below shows, their CPIs on the MCAS tests are very close to those of ELL and formerly LEP students statewide in both ELA and Mathematics. However, according to the table, the achievement of special education students, treated under the same model, yields CPIs significantly lower than those for their peers statewide.

Table 4: 2009 Comprehensive Proficiency Index (CPI) in ELA and Mathematics for Lowell Limited English Proficient and Formerly Limited English Proficient (LEP/FLEP) and Special Education Students as Compared with the State Subgroups

ELA / Reading	Lowell	State	Mathematics	Lowell	State
Grade 3			Grade 3		
LEP/FLEP	62.2	65.1	LEP/FLEP	59.0	65.5
Special Ed	48.6	65.5	Special Ed	49.2	63.8
Grade 4			Grade 4		
LEP/FLEP	58.9	61.2	LEP/FLEP	59.9	63.1
Special Ed	40.3	59.5	Special Ed	44.5	60.4
Grade 5			Grade 5		
LEP/FLEP	62.9	66.5	LEP/FLEP	54.1	58.3
Special Ed	47.7	67.1	Special Ed	39.3	54.7
Grade 6			Grade 6		
LEP/FLEP	68.2	64.8	LEP/FLEP	64.4	58.4
Special Ed	49.0	64.9	Special Ed	41.5	55.5
Grade 7			Grade 7		
LEP/FLEP	66.1	65.4	LEP/FLEP	50.6	50.4
Special Ed	54.0	69.0	Special Ed	39.1	49.3
Grade 8			Grade 8		
LEP/FLEP	73.2	66.7	LEP/FLEP	50.7	47.1
Special Ed	54.8	73.6	Special Ed	33.5	47.4
Grade 10			Grade 10		
LEP/FLEP	72.7	65.7	LEP/FLEP	69.6	65.2
Special Ed	54.7	76.0	Special Ed	47.6	69.4
All Grades			All Grades		
LEP/FLEP	65.4	64.8	LEP/FLEP	57.8	59.2
Special Ed	49.6	67.8	Special Ed	41.4	56.9

Source: School/District Profiles on ESE website

According to the table above:

- LEP/FLEP students in Lowell are scoring at approximately the same level as their statewide peers. In ELA at grades 3, 4, 5, 6, and 7, CPIs for Lowell LEP/FLEPstudents are within four points of LEP/FLEP students statewide; in grades 6, 7, 8, and 10 Lowell

LEP/FLEP students are outscoring their peers statewide. In mathematics, with the exception of grades 3 and 6, Lowell LEP/FLEP students are scoring within about four points of state LEP/FLEP students; in grades 6, 7, 8, and 10, Lowell LEP/FLEP students are outscoring their peers statewide.

- Across the state, CPIs for LEP/FLEP and special education students in both ELA and mathematics are close to the same level. CPIs for state LEP/FLEP and special education students are generally within about four points of one another. Exceptions are that in grades 8 and 10 ELA, state special education students outscore state LEP/FLEP students by a margin greater than four CPI points.
- Lowell special education students have CPIs considerably lower than those for Lowell LEP/FLEP students. The CPI gap between Lowell special education and LEP/FLEP students in ELA ranges from about 12 to about 19 points. The CPI gap between Lowell special education and LEP/FLEP students in mathematics ranges from about 10 to about 23 points.
- Lowell special education students have CPIs considerably lower than their statewide peers. In ELA, the gap between CPIs for Lowell special education students and those students statewide ranges from 15 to about 21 points. In mathematics, Lowell special education students have CPIs lower than those of special education students statewide by from about 10 to about 22 points.

Many factors contribute to the CPI. However, instruction for ELL and formerly limited English proficient students in Lowell is effective in that it leads to achievement very close to that of LEP/FLEP students statewide. This is not the case for special education students in Lowell whose achievement level, based on the CPI, is considerably lower than that of Lowell LEP/FLEP students. This is particularly remarkable since state CPIs for LEP/FLEP and special education students are close to one another. The Lowell model of providing similar instructional support through interventions for all students regardless of their subgroup designation is not leading to Lowell special education student achievement at the level of Lowell LEP/FLEP students or at that of special education and LEP/FLEP students in the state.

Recommendations

The district should continue the robust leadership development opportunities for administrators and teachers as it focuses on improvement in literacy and mathematics achievement.

To date principals and teachers have had multiple opportunities to grow and develop professionally. Principals have participated in NISL training. They have also participated in ESE initiatives designed to develop administrators' ability to supervise improvement in instruction, such as walkthroughs. Teachers also have many leadership development opportunities through grade level leader positions, the newly instituted Cycle of Inquiry, and locally developed professional development courses. These are valuable initiatives that should be retained, as they have been instrumental in instilling the belief that all children can learn, given adequate time and the appropriate instructional supports.

There is a need in every public school district to balance the needs of the district with the needs of each school, and the needs of the organization with the needs of individuals. A district striving to improve student achievement must keep an overall focus, while encouraging and assisting leaders to grow in their leadership roles, whether they are district or school leaders or teacher leaders in content and grade level initiatives. High-functioning systems include opportunities for entrepreneurial endeavors that move the organization forward. Administrators in Lowell have had an opportunity for leadership development resulting in a cohort of principals sharing a common philosophy who have demonstrated success in closing the achievement gap in their schools. Leadership has been a contributing factor in the outstanding growth in ELL student achievement in Lowell. It is the consensus of the review team that effective administrative leadership development should continue.

The district should continue to develop leadership practices and instructional strategies that ensure that the quality of classroom instruction matches the district's vision of excellent instruction; it should particularly develop instructional strategies that require students to engage in higher-order thinking.

In focus groups and interviews, teachers and leaders were able to articulate the expectations for high quality instruction in Lowell. The district has committed resources to offer professional development courses that target building instructional capacity and helping teachers understand the challenges involved in working with a diverse student population. In addition, the Lowell Teachers Academy prioritizes reinforcing good teaching in the first course for new teachers. Yet, overall, the review team observed only a moderate number of examples of excellence in the 122 observed classrooms. In less than 50 percent of classes visited did the team observe solid evidence of instructional characteristics related to higher-order thinking: instruction that calls for students to apply new knowledge and content; articulate their thinking and reasoning; apply, analyze, synthesize, and evaluate; and work together to inquire, explore, or problem-solve.

In addition, the district collects and analyzes multiple forms of student achievement data and holds data meetings to understand student progress. Data is used to inform interventions and to structure how paraprofessionals work with small groups and individual students. However, the evidence is not strong that teachers use achievement data to group students for differentiated lessons, apart from using the data to select interventions. When the team observed multiple learning activities in classes, all students usually cycled through the same activities without differentiation for their specific learning needs. It appears that teachers have not received adequate support in planning and monitoring multiple and complex lessons.

The district will make a significant difference in the educational lives of its students when its teachers put into practice the wealth of information and support available to them through their professional development, making excellent teaching the norm in every school, classroom, and lesson.

The district should consider updating the textbooks, resources, and materials needed to teach science and social studies. The district should also evaluate ways to increase instructional time and the quality of instruction in science and social studies.

When review team members asked teachers what they needed most to improve the quality of education in their classes, they frequently mentioned the need for updated materials and textbooks to teach science and social studies. Materials and resources in these subjects for kindergarten through grade 8 are often scarce, are not common across classrooms and schools, and are frequently outdated. Teachers reported that in many elementary and middle school classrooms, students do not have their own science and social studies texts.

The team noted less emphasis on instructional time and content in science and social studies in kindergarten through grade 8. Perhaps this has been an unintended result of limiting school improvement goals at each school to one literacy goal and one mathematics goal, causing school leaders and teachers to decrease emphasis on other core content areas. It is important to give science and social studies time and attention, perhaps by integrating them topically or thematically into ELA and mathematics lessons so that student learning is expanded and more complete.

In the science and social studies classes observed in elementary and middle schools, there was a limited amount of deep questioning of students, asking them to make connections and applications. The scientific method was only minimally evident, and students were not fully engaged in science lessons. Many social studies classes were teacher-centered rather than student-centered, and teachers rarely asked students to engage in concept formation and higher-order thinking. The Lowell Science, Technology, and Engineering MCAS test results for 2009 show proficiency rates well below the statewide rates. This may have resulted from inadequate teaching materials and resources. Lowell's students, many of whom come from countries with histories of oppression and turmoil, would benefit from an understanding of social and political trends. The Lowell science and social studies curricula are well-developed, and the review team

recommends that the district improve teaching and materials and increase instructional time, to enable Lowell students to achieve higher levels of understanding and performance.

The district should continue to refine and expand upon its existing professional development practice of providing teachers with the instructional skills and strategies necessary to meet the individual needs of all students.

The district's professional development program provides teachers with the instructional skills and strategies necessary to meet the individual needs of all students. This program focuses on best practice instruction delivered primarily through a non-categorical service model that addresses the needs of all learners. This practice has helped to enable ELL students in the eight identified schools to outperform their peers statewide. The district should refine and expand this model in order to continue to close the achievement gap between ELL and regular education students.

The superintendent should ensure that all evaluations of administrators conform to 603 CMR 35.00: they should be based on performance standards consistent with the Principles of Effective Administrative Leadership and should be informative and instructive, in order to promote administrators' professional growth and development.

There was no evidence that the eight redacted evaluations of principals provided to the review team, seven of which consisted only of the first page, addressed the Principles of Effective Administrative Leadership, and there was no way to determine whether these evaluations included recommendations to promote the principals' professional growth and development. The district's successful efforts so far to improve student achievement for ELL students can be attributed in part to the thoughtful and focused leadership of its principals. The review team believes that the continuing growth and development of principals and other administrators is a condition for the continuing improvement of student achievement in the district.

Given the high percentage of the population whose first language is not English, the district should continue to mainstream ELL students and expand the training of all teachers in the instructional strategies needed to reach ELL students effectively.

The district has a core belief that teachers and schools are responsible for all students. To support this belief, the superintendent combined the teaching of ELL and ELA and centered the leadership in the district office under the deputy superintendent and the district coordinator of reading and ELA. The district has also successfully trained a significant number of teachers in sheltering strategies, placing most ELL students in the mainstream, where teachers fully integrate them into the class.

Many benefits accrue to ELL students because of this placement:

- ELL students have access to the whole curriculum taught by teachers licensed in the various subject areas.
- The mainstream classroom is a language-rich environment where ELL students learn English through learning content.

- ELL and regular education students both benefit from an integrated social environment where students share their cultural knowledge with each other and work together without separating themselves by language or background.
- ELL students receive instruction from teachers trained in sheltering strategies. In Lowell's "gap closer" schools, these teachers usually have shared planning time with colleagues where they plan appropriate interventions. At times, ELL teachers or tutors assist regular classroom teachers with learning groups.

Category trainings represent a good first step toward understanding how to adapt instruction for these learners. However, these trainings do not fully ground teachers in the ELPBO, second language acquisition theory, or the cultural background of the many ELL students in their classrooms. The common misunderstandings and stumbling blocks for ELL students often puzzle teachers without a full grounding in the ELPBO, as they follow prescriptions and don't always understand why their students still experience difficulty. Classroom teachers should continue to develop their understanding of the continuum of language acquisition and strategies to scaffold and differentiate instruction for all learners.

The district should increase ELD instruction for ELL students.

The district has set up a variety of school sites for newcomers based on their home language. In this way, it has been able to concentrate resources for immigrants and refugees with little exposure to English. These schools also have a paraprofessional, tutor, or teacher who can speak the first language in order to facilitate communication. However, whether in these schools or in the remaining schools of the district, the review team found that resources for ESL instruction and support are insufficient to meet the need. ELL students at the intermediate level are not progressing at a satisfactory rate. As beneficial as mainstreaming is to ELL students, some of their needs cannot be met in the mainstream. These students must be identified for additional instruction from an ELL teacher to improve their English language proficiency.

The district should improve its outreach to parents of ELL students.

Lowell faces a challenge in providing all of the translation and outreach services that might be desirable in a community of such diversity. The district should begin by examining how it can translate more information into the languages of its residents. The district should translate documents such as the report card, school notices, and notification of school open houses that take place every year. A portion of the school website should contain information in the home languages regarding news of importance to parents in general and to parents of ELL students. The district should also consider ways to reach the greatest number of people without duplicating translation services. The community is rich in media outlets that could provide a valuable service to their market by posting school information once per month. Social and religious organizations that cater to certain ethnic groups may be useful places to post notices, meet parents, and share information. In addition, the Lowell school district has many partnerships. Some of the existing partnerships may be useful resources in connecting with the community.

Principals and teachers stated that efforts to reach the parents of ELL students often fail: when the school holds an event, few parents of ELL students attend. The district should consider ways to provide needed services to enable parents to attend school functions. Once familiar with the schools, parents may be more willing to engage in a dialogue about their child's education. The outreach done by school social workers is already improving communication between ELL families and the school. The district should not let the limited success of its past outreach attempts prevent investigation of more promising ways to enhance the relationship between school and home for ELL students. Enhancing this relationship is important both for ELL students' social adjustment and their academic achievement.

To improve the proficiency levels of students with disabilities, the district should review the reasons for their lower achievement and consider ways to provide them with additional instructional support beyond the interventions provided to all students.

Based upon its belief that all students can learn at high levels, the district has developed a largely successful model of providing common interventions for all students that address their identified specific instructional needs. As a result, Lowell ELL students have proficiency rates that are in most cases higher than those of LEP students across the state. While this model is undoubtedly beneficial in many ways for special education students, data indicates that more support is needed to improve the achievement of students with disabilities. While across the state students with disabilities have similar Composite Performance Index scores to LEP/FLEP students, this is not true in Lowell. In Lowell, students with disabilities have CPIs considerably lower than those of Lowell LEP/FLEP students and special education students statewide. This leads to the conclusion that the learning needs of these students in Lowell are not being met under the instructional model now in place. The district should review the reasons for the lower achievement of special education students when compared to LEP/FLEP students in Lowell and special education students statewide. This review should lead to understanding the reasons for this achievement gap and to implementation of support services that more fully address these students' instructional needs, which will help raise their achievement.

Appendix A: Review Team Members

The review of the Lowell Public Schools was conducted on May 18 and 20 and from May 24-26, 2010, by the following team of educators, independent consultants to Class Measures, an educational consultancy firm.

Dr. Magdalene Giffune, Leadership and Governance

Dr. Linda Greyser, Curriculum and Instruction

Dr. James McAuliffe, Assessment

Dr. William Contreras, Human Resources and Professional Development

Dr. Katherine Lopez Natale, ELL Support

Patricia Williams, Student Support

Patricia Williams served as review team coordinator

Appendix B: Review Activities and Site Visit Schedule

Review Activities

The following activities were conducted as part of the review of the Lowell Public Schools.

- The review team conducted interviews and focus groups with the following representatives from the Lowell Public Schools: superintendent, deputy superintendent for curriculum, instruction, and assessment, assistant superintendent for business and finance, assistant superintendent of student support and special education, coordinator of research, testing and assessment, director of human resources, Title I director, district office curriculum team members, ELL support staff, principals of non grant and grant schools, district assessment support specialists, McKinney-Vento Coordinator, special education coordinators, department heads.
- The review team visited the following schools in the Lowell Public Schools: Abraham Lincoln (pre-K-4), B.F. Butler Middle (5-8), Dr. An Wang Middle (5-8), James S Daley Middle (5 -8), John J Shaughnessy (pre-K-4), Kathryn P Stoklosa Middle (5-8), Pyne Arts (pre-K-8), and Washington (pre-K-4).
- During school visits, the review team conducted interviews with school principals, teachers, and parents.
    - The review team conducted 122 classroom visits for different grade levels and subjects across the eight schools visited.
- The review team reviewed the following documents provided by ESE:
    - District profile data
    - District and School Data Review
    - Latest Coordinated Program Review Report
    - Staff contracts
    - Reports on licensure and highly qualified status
    - Long-term enrollment trends
    - List of the district's federal and state grants
    - Municipal profile
    - Center for Resource Management Literacy Audit
    - District Plan for School Intervention
    - Teaching, Learning and Leading Survey

- District Strategic Goal for Student Achievement
- Professional Development Plan
- MEPA Assessment Data for One School
- List of Teachers with Category Training

- The review team reviewed the following documents at the district and school levels:
  - Organization chart
  - District Improvement Plan
  - School Improvement Plans
  - School committee policy manual
  - Curriculum guides
  - High school program of studies
  - Calendar of formative and summative assessments
  - Copies of data analyses/reports used in schools
  - Descriptions of student support programs
  - Student and Family Handbooks
  - Faculty Handbook
  - Professional Development Plan and program/schedule/courses
  - Teacher planning time/meeting schedules
  - Teacher evaluation tool
  - Classroom observation tool
  - Job descriptions (for central office and school administrators and instructional staff)
  - Principal evaluations (for eight grant school principals)
  - Procedures and assessments to identify LEP students and assess their level of English proficiency in reading, writing, speaking, and listening.

Site Visit Schedule

The following is the schedule for the onsite portion of the review of the Lowell Public Schools conducted on May 18 and 20 and from May 24-26, 2010.

Tuesday	Thursday	Monday	Tuesday	Wednesday
May18 Orientation meeting with district leaders; interviews with district staff and principals; review of documents	May 20 Interviews with district staff and principals; interview with high school department heads; review of documents	May 24 School visits (Abraham Lincoln, Shaughnessy, and Washington elementaries); interviews with school leaders; classroom observations; teacher team meetings; teacher and parent focus groups	May 25 School visits (Wang Middle, Daley Middle, Pyne Arts); interviews with school leaders; classroom observations; teacher team meetings; teacher and parent focus groups	May 26 School visits (Butler Middle and Stoklosa Middle); interviews with school leaders; classroom observations; teacher team meetings; teacher and parent focus groups