

NEW ENGLAND ASSOCIATION OF SCHOOLS AND COLLEGES

COMMITTEE ON PUBLIC SECONDARY SCHOOLS

REPORT OF THE VISITING COMMITTEE

Lowell High School

Lowell, MA

October 18-21, 2015

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STATEMENT ON LIMITATIONS

THE DISTRIBUTION, USE, AND SCOPE OF THE VISITING COMMITTEE REPORT

The Committee on Public Secondary Schools of the New England Association of Schools and Colleges considers this visiting committee report of Lowell High School to be a privileged document submitted by the Committee on Public Secondary Schools of the New England Association of Schools and Colleges to the principal of the school and by the principal to the state department of education. Distribution of the report within the school community is the responsibility of the school principal. The final visiting committee report must be released in its entirety within sixty days (60) of its completion to the superintendent, school board, public library or town office, and the appropriate news media.

The prime concern of the visiting committee has been to assess the quality of the educational program at Lowell High School in terms of the Committee's Standards for Accreditation. Neither the total report nor any of its subsections is to be considered an evaluation of any individual staff member but rather a professional appraisal of the school as it appeared to the visiting committee.

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INTRODUCTION

The New England Association of Schools and Colleges (NEASC) is the oldest of the six regional accrediting agencies in the United States. Since its inception in 1885, the Association has awarded membership and accreditation to those educational institutions in the six-state New England region who seek voluntary affiliation.

The governing body of the Association is its Board of Trustees which supervises the work of four Commissions: the Commission on Institutions of Higher Education (CIHE); the Commission on Independent Schools (CIS); the Commission on Public Schools which is comprised of the Committee on Public Secondary Schools (CPSS), the Committee on Technical and Career Institutions (CTCI), and the Committee on Public Elementary and Middle Schools (CPEMS); and the Commission on International Education (CIE).

As the responsible agency for matters of the evaluation and accreditation of public secondary school member institutions, CPSS requires visiting committees to assess the degree to which the evaluated schools meet the qualitative Standards for Accreditation of the Committee. Those Standards are:

- Teaching and Learning Standards
 - Core Values, Beliefs, and Learning Expectations
 - Curriculum
 - Instruction
 - Assessment of and for Student Learning
- Support of Teaching and Learning Standards
 - School Culture and Leadership
 - School Resources for Learning
 - Community Resources for Learning

The accreditation program for public schools involves a threefold process: the self-study conducted by the local professional staff, the on-site evaluation conducted by the Committee's visiting committee, and the follow-up program carried out by the school to implement the findings of its own self-study and the valid recommendations of the visiting committee and those identified by the Committee in the Follow-Up process. Continued accreditation requires that the school be reevaluated at least once every ten years and that it show continued progress addressing identified needs.

Preparation for the Accreditation Visit - The School Self-Study

A steering committee of the professional staff was appointed to supervise the myriad details inherent in the school's self-study. At Lowell High School, a committee of eleven members, including the headmaster, supervised all aspects of the self-study. The steering committee assigned all teachers and administrators in the school to appropriate subcommittees to determine the quality of all programs, activities, and facilities available for young people. The self-study of Lowell High School extended over a period of 13 months from June 2014 to June 2015. The visiting committee was pleased to note that the entire professional staff of over 250 participated in the self-study deliberations.

Public schools evaluated by the Committee on Public Secondary Schools must complete appropriate materials to assess their adherence to the Standards for Accreditation and the quality of their educational offerings in light of the school's mission, learning expectations, and unique student population. In addition to using the Self-Study Guides developed by a representative group of New England educators and approved by the Committee, Lowell High School also used questionnaires developed by The Research Center at Endicott College to reflect the concepts contained in the Standards for Accreditation. These materials provided discussion items for a comprehensive assessment of the school by the professional staff during the self-study.

It is important that the reader understand that every subcommittee appointed by the steering committee was required to present its report to the entire professional staff for approval. No single report developed in the self-study became part of the official self-study documents until it had been approved by the entire professional staff.

The Process Used by the Visiting Committee

A visiting committee of 23 evaluators was assigned by the Committee on Public Secondary Schools to evaluate the Lowell High School. The Committee members spent four days in Lowell, reviewed the self-study documents which had been prepared for their examination, met with administrators, teachers, other school and system personnel, students and parents, shadowed students, visited classes, and interviewed teachers to determine the degree to which the school meets the Committee's Standards for Accreditation. Since the evaluators represented public schools, central office administrators, principals, teachers and guidance and special education personnel diverse points of view were brought to bear on the evaluation of Lowell High School.

The visiting committee built its professional judgment on evidence collected from the following sources:

- review of the school's self-study materials
- sixty-nine hours shadowing twenty-three students for a half day
- a total of 18 hours of classroom observation (in addition to time shadowing students)
- numerous informal observations in and around the school
- tours of the facility
- individual meetings with thirty-one teachers about their work, instructional approaches, and the assessment of student learning
- group meetings with students, parents, school and district administrators, and teachers
- the examination of student work including a selection of work collected by the school

Each conclusion in the report was agreed to by visiting committee consensus. Sources of evidence for each conclusion drawn by the visiting committee appear in parenthesis in the Standards sections of the report. The seven Standards for Accreditation reports include commendations and recommendations that in the visiting committee's judgment will be helpful to the school as it works to improve teaching and learning and to better meet Committee Standards.

The visiting team was pleased with the frankness of the school's self-study documents. The Lowell High School community entered into the self-study with honesty and commitment. The participants were not afraid to judge themselves against the demands of the Standards for Accreditation. They identified and acknowledged areas needing attention and in turn spoke glowingly regarding those areas where the school is more than adequately adhering to the Standards for Accreditation. The self-study displayed a good and growing grasp of the major thrusts and features of the Standards for Accreditation. During the visit Lowell High School personnel were forthright as well in responding to the team members' inquiries during the teacher interviews on Sunday and in the various group meeting during the school day on Monday and Tuesday. Because of the quality of the self-study and the full participation by Lowell High School personnel at the various meetings, the visiting team was able to spend the vast

majority of its time evaluating and discussing the level of the school's adherence to the Standard and its identified strengths and needs and therefore spent a minimum of time chasing data.

Lowell High School is at a critical point in its existence. It has capable leadership at both the school and the district level; it has a dedicated faculty and support staff. It has a student body that displays pride in its community and in the school and in their accomplishments. The following evaluation will detail major accomplishments and will identify existing shortcomings. Those shortcomings are remediable. The community to its credit has embarked upon a plan to address the shortcomings and the impediments that the high school site and plant places in the way of student learning. Those issues are obvious and acknowledged by the school community. The school community does not dispute the identified needs, particularly in terms of the facility's inability to provide resources that fully support 21st century education curriculum and instructional practice. The building has been well cared for and enhanced somewhat with piecemeal but needed renovations undertaken as needs arise and as budgets allow, but so many of the infrastructure issues significantly impede the delivery of services that that fully support 21st century education curriculum and instructional practice. The visiting committee was pleased to have encountered during our visit committed, focused administrators and dedicated educators who do their best to work around these facility and resource shortcomings.

This report of the findings of the visiting committee will be forwarded to the Committee on Public Secondary Schools which will make a decision on the accreditation of Lowell High School.

School and Community Summary

The City of Lowell, Middlesex County, is located 30 miles northwest of Boston in the Merrimack Valley region of Massachusetts. Lowell is the fourth largest city in the Commonwealth of Massachusetts with a population of 108,861 contained in 14.54 square miles, making its population density 7,842 per square mile. The population is very diverse: 59.1% white, 20.1% Asian, 14.2% Hispanic, and 6.6% African American. Twenty five percent of Lowell's population was born in foreign countries, almost twice the state average.

The socioeconomic profile of the city is as diverse as its population. The per capita income is \$22,278. The city's median household income is \$45,271 compared to the \$65,339 state average. The percentage of families living below poverty level is 19.1%. The number of residents employed is 57,976; the unemployment rate in Lowell is 7.6%. The total employed in Lowell breaks down as: educational services and healthcare 12,964; services 11,730; manufacturing 8,562; trade 6,842; government 6,552; construction 2,698; transportation, communication, and public utilities 2,406; all others 6,222. (US Census Bureau – <http://factfinder2.census.gov>).

The Commonwealth of Massachusetts's average expenditure per pupil is \$14,021. The city of Lowell's per pupil expenditure is \$13,167. Educational funding is obtained through the following sources: state 78.62%, federal 9.47%, and 8.35% local. The allocation of local property tax to the public schools is 48.05%.

The total number of students in the Lowell Public School District is 14,075 for the 2014-15 school year in 13 elementary schools, 7 middle schools, 1 comprehensive K-8 school, 4 alternative schools, and one high school.

The ethnic/racial/cultural composition of the student body in the Lowell Public Schools makes it one of the most diverse districts in the Commonwealth: African American students 7.1%, Asian students 29.4%, Hispanic students 30.1%, white students 30.1%, and all other students 3.2%. In the district, 75.1% of the student body qualifies as low-income, 15.1% are classified as Special Education (SPED), and the English language learner (ELL) population is 26.6%.

Enrollment at Lowell High School, which includes grades 9 through 12, is 3,034 students for the 2014-15 school year, comprised 1530 males and 1504 females: 889 9th graders, 792 10th graders, 687 11th graders and 645 12th graders, and 21 SPED students beyond grade 12. The two-year average dropout rate at LHS is 3.25%. The two-year average graduation rate is 74.9%.

Teachers number 215 at Lowell High School, creating a student/teacher ratio of 14.2:1. The two-year average staff attendance rate is 94.26%. Individual teachers teach 5 classes a day, facilitate an Advisory for 20 minutes a day, and have one duty and one prep period each day. They carry an average load of 140 students, as the school strives to create class sizes the fall between 26-28 students. Class sizes, however, fluctuate greatly due to the school's substantially separate programs and the range of

specialized courses throughout the building. Students at Lowell High School attend school for 180 days and for a minimum of 975 hours. There are five different levels of courses at Lowell High School: Advanced Placement (AP)/Dual Enrollment (DE), High Honors (HH), Honors (H), College (C), and non-weighted.

Incoming freshmen students are predominantly housed in one building of the high school that serves as the Freshman Academy, which has its own Director. Freshman Academy students are taught by a team of teachers in a cluster of four courses: English, social studies, math, and science. The interdisciplinary teams meet weekly to determine strategies for maximizing potential of the students in their cluster. This cluster environment is most responsive to the emerging needs and talents of students who are making the transition to a high school setting. Freshman Academy students also take a non-weighted Seminar course which focuses on a range of topics throughout the year, including establishing goals, learning solid study habits, exploring career interests and pathways, and being exposed to financial literacy. The challenges students meet and the experiences they gain in the Freshmen Academy will help ensure their continued success at Lowell High School.

Lowell also has a number of Pathway Programs directly connected to the skills and knowledge that students need for post-secondary education and careers. The Pathway Programs use an applied hands-on/minds-on approach that is connected to real-world work experiences and provide opportunities for all students and their different abilities, interests, and talents. The Pathway Programs include: Air Force Junior ROTC, Business Marketing and Finance, Communications, Culinary Arts, Engineering, Fine Arts, Health and Bioscience, and Public Service and Civic Engagement. Students in these programs also have access to some unique facilities including: a newly renovated restaurant, the Jeanne D'Arc Credit Union, the 1826 School Store, an in-house television/media center, and state-of-the-art robotics equipment.

Another significant program within the high school is the Latin Lyceum, an academically rigorous exam program that challenges students to an intellectually stimulating environment. Latin Lyceum students participate in an intensive program aimed at rigorous and integrated academic preparation in a classical education model.

Lowell High School has established effective partnerships with two of the local institutions of higher education. Juniors and seniors may enroll in Dual Enrollment courses, taught on the Lowell High campus, from Middlesex Community College and the University of Massachusetts Lowell at no cost. For the 2014-2015 school year, 156 students took a total of 401 Dual Enrollment courses, earning a total of 1237 college credits translating into savings of \$217,712.

Lowell High has established strong partnerships with several community organizations. The Career Center of Lowell visits Lowell High every Wednesday in the Lowell High College and Career Center to link students to part-time job opportunities. The Career center also conducts an annual job fair in the Lowell High cafe during the spring for students interested in summer opportunities. Community Team

Work plays an important role in many of our students in greatest need by providing assistance to students and families with housing, food, and home fuel needs.

The academic awards at Lowell High School are numerous and varied. The most traditional awards are the Carney medals, first awarded in 1859 and named in honor of James C. Carney of the Lowell Institution for Savings. Carney Medals are awarded to the top three male and female graduating students for excellence in character, scholarship, and attendance. The Senator Paul E. Tsongas (LHS Class of '58) Award provides 2 full scholarships to University of Massachusetts Lowell for both undergraduate and graduate study. In addition, Lowell High School annually awards over \$400,000 of in-house scholarships to graduating seniors.

Lowell High students are committed, life-long learners as demonstrated by their post-secondary educational choices: 85% attend college; 47% attend 4-year colleges; 38% attend 2-year colleges; and 12% enter directly to the workforce.

LOWELL HIGH SCHOOL MISSION STATEMENT

Commitment to excellence in everything we do: academics, activities and citizenship.

Lowell High School provides a secure and cooperative environment where the emphasis is on mutual respect, curiosity, the free exchange of ideas, and the appreciation of education both as a process and a means to betterment.

We are a community...

- That values a curriculum incorporating the best practices of both traditional and contemporary instruction.
- That creates and supports an atmosphere promoting high expectations for student achievement.
- That believes student accomplishment is a shared responsibility of students, parents, staff, administration, school committee, and community.
- That provides all students the curriculum to meet school and state graduation requirements, and assesses learning continuously in a variety of ways including mandatory state testing.

LHS EXPECTATIONS FOR STUDENT LEARNING

Lowell High School expects all students...

- To attain an understanding of the educational standards, core knowledge, skills, and concepts defined by the Massachusetts Curriculum Frameworks.
- To take increasing responsibility for educational decisions on a daily and long-term basis.
- To complete academic work both independently and cooperatively in a productive manner.
- To think critically and solve problems using inductive and deductive reasoning.
- To read effectively and communicate ideas and information using a variety of formats.
- To develop an ability to use a variety of mediums—including the creative and the technological—in the process of learning, and demonstrate their acquired learning through use of those mediums.
- To demonstrate respect for individual differences and appreciation for the diversity of a multicultural world.
- To understand and demonstrate a sense of community.

Core Values

- Responsibility
- Integrity
- Determination
- Engagement
- Respect

COMMITTEE ON PUBLIC SECONDARY SCHOOLS

TEACHING AND LEARNING STANDARDS

**CORE VALUES, BELIEFS, AND LEARNING
EXPECTATIONS**

CURRICULUM

INSTRUCTION

**ASSESSMENT OF AND FOR STUDENT
LEARNING**

1

Core Values, Beliefs, and Learning Expectations

Effective schools identify core values and beliefs about learning that function as explicit foundational commitments to students and the community. Decision-making remains focused on and aligned with these critical commitments. Core values and beliefs manifest themselves in research-based, school-wide 21st century learning expectations. Every component of the school is driven by the core values and beliefs and supports all students' achievement of the school's learning expectations.

1. The school community engages in a dynamic, collaborative, and inclusive process informed by current research-based best practices to identify and commit to its core values and beliefs about learning.
2. The school has challenging and measurable 21st century learning expectations for all students which address academic, social, and civic competencies, and are defined by school-wide analytic rubrics that identify targeted high levels of achievement.
3. The school's core values, beliefs, and 21st century learning expectations are actively reflected in the culture of the school, drive curriculum, instruction, and assessment in every classroom, and guide the school's policies, procedures, decisions, and resource allocations.
4. The school regularly reviews and revises its core values, beliefs, and 21st century learning expectations based on research, multiple data sources, as well as district and school community priorities.

Core Values, Beliefs, and Learning Expectations

Conclusions

The school community engaged in a dynamic, collaborative, and a partially inclusive process informed by current research-based best practices to identify and commit to its core values and beliefs about learning. While Lowell High School engaged in a collaborative process, informed by current research-based best practices to identify and commit to its core values in the Freshman Academy, the entire school community did not engage in a dynamic and inclusive process to identify and commit to their beliefs about learning. Two consultant programs, Positive Behavior Intervention & Support (PBIS) and the University of Connecticut's Center for Behavioral Education and Research, supported the Freshman Academy in its implementation of the pilot program. The participants involved in this process documented the 20+ meetings of the PBIS committee and developed the PBIS manual which was the end product of this work. In November 2012, 80 percent of the Freshman Academy faculty voted to accept the core values developed in the process. In June 2015, over 80 percent of the entire school's staff voted favorably to accept the core values that were originally accepted by the Freshman Academy. When members of the school community are asked about core values, many referenced the acronym "RIDER" (responsibility, integrity, determination, engagement, and respect) and then referenced their ID badges which display Lowell High School's core values. While there is ample evidence that core values were identified and adopted within the Freshman Academy, any momentum driven by them to align core values and beliefs within the entire school community is not so clearly evident. The faculty discussed the core values in a May 2015 assembly and then voted on and accepted them in June of 2015. The work to integrate the core values across the entire school community has been happening this current year. The school established committee a and it has spent time during early release days looking at the PBIS work in the FA and making a plan to share out with the entire faculty later this year. The greater the level of involvement in the identification of a school's core values, the greater the level of commitment will be as the potential driving force in all school endeavors. (self-study, panel presentation, Endicott survey, teacher interviews, students, parents, school leadership, teachers)

The school has some challenging and measurable 21st century learning expectations for all students which address academic, social, and civic competencies, but are not yet defined by school-wide analytic rubrics that identify targeted high levels of achievement. Lowell's levels of achievement of the school's eight 21st century learning expectations are currently not all measurable nor are they defined by school-wide analytic rubrics that identify targeted high levels of achievement. Lowell High School has identified eight challenging learning expectations for every student and some are not measurable. For example, "to attain an understanding of the educational standards" and "to read effectively" are not specific and measureable. Furthermore, common analytic rubrics that can be used on a school-wide basis and that identify high levels of achievement are necessary to measure the 21st century learning expectations; such rubrics and their use were not in evidence in classrooms. Instead, the school uses a range of rubrics within departments, for example, a history research paper rubric and World-Class Instructional Design (WiDA) rubrics, that are disparate in style and format and contain no common language with other rubrics. As the Endicott survey indicates, only 33.5 percent of teachers is in

agreement with the statement, “The school has adopted school-wide analytic rubrics that define all the 21st century learning expectations.” Teachers and administrators agree that the school’s 21st century learning expectations and corresponding rubrics require additional development time in order for the school to create and implement them effectively in all grade levels. Social and civic competencies are identified and located in murals, banners, and signs in high traffic areas of the school through the RIDER acronym. During the examination of student work, any reference to 21st century learning expectations was rare. When 21st century learning expectations are not assessed through analytic rubrics, students are not provided concrete and consistent feedback as to how to improve their essential skills to be successful in the 21st century. (self-study, student shadowing, panel presentation, facility tour, student work, teacher interviews, students, Endicott survey, school leadership)

The school’s core values and beliefs, as summarized in the RIDER acronym, are actively reflective of the culture of the school, its curriculum, its instruction, and its assessment in every classroom, and guide the school’s policies, procedures, decisions, and resource allocations, but that is much less the case for the school’s 21st century learning expectations. The work done to identify the RIDER acronym clearly reflects the beliefs prevalent in the Lowell High School community at large. While the school’s recently developed core values are actively reflected in the culture of the Freshman Academy and to a growing extent in the school’s upper grades, the school’s 21st century learning expectations are not actively reflected in the culture of the school and do not sufficiently drive curriculum, instruction, assessment, the school’s policies, procedures, decisions, and resource allocations. The RIDER values are beginning to be embraced by the school at-large. Some of the expectations for student learning appear in curriculum maps; however, the school has not established who/which department is responsible for teaching each of the expectations for student learning, nor are the expectations explicitly defined in curriculum, instruction, and assessments. For example, the 21st century expectation “to read effectively and communicate ideas and information using a variety of formats” can be aligned to “active, close reading of literature” which can be found in Unit 2 of the English II college curriculum. This is also an example of the lack of common language in defining the meanings of the school’s expectations. Also, virtually all of the expectations for student learning are not embedded into all of the curriculum maps. Teachers generally do not acknowledge individual responsibility of identifying the 21st century skills for which they are responsible. Of the teachers formally interviewed by the visiting committee, only about one quarter identified the expectation(s) for which they feel a responsibility. Most were not able to explain how their sample lesson outline they presented was related to any of the school’s 21st century learning expectations. While teachers in the Freshman Academy teach the core values in the Seminar class (a support class to help students acclimate to the academic expectations of high school) in the 9th grade, most members of the upper grade levels do not reference the core values, beliefs, and 21st century learning expectations in their classrooms or advisories. Currently, a school-wide grading policy committee has been established and has met with the goal of having a working policy in place to present to the school by the end of the year and to be finalized for implementation for the 2016-2017 school year. Administrators have stated that their expectation is that analytic rubrics will be discussed in this committee as well. According to meeting notes from June 2014, the expectation was to allow the accreditation process to take place and then revisit core values and beliefs after recommendations from the committee. Only when comprehensive core values, beliefs, and the 21st century learning expectations

are actively reflected in the culture of the school and when they drive curriculum, instruction, and assessment in every classroom, will policies, procedures, decisions, and resource allocations be more likely to improve mastery of the school's academic expectations. (self-study, student work, teacher interviews, student shadowing, school leadership, teachers)

Although the school has a number of targets for analyzing data and reviewing programs in the Two- and Five-Year Follow-Up Plans, the school does not have a codified plan for the regular review and revision as may be necessary of its core values, beliefs, and 21st century learning expectations based on research, multiple data sources, as well as on district and school community priorities. Understandably, given the very recent adoption, the school has not conducted any review and/or revision of its core values, beliefs, and 21st century learning expectations based on research, multiple data sources, as well as on district and school community priorities. Additionally, the school has yet to develop a framework and a formal systematic review of the core values, beliefs, and 21st century learning expectations. Without a process for review based on input from all stakeholders and research and multiple data sources, the school has no way of assessing the validity and soundness of its core values, beliefs, and expectations. (self-study, teacher interviews, community members, panel presentation, central office personnel, school leadership)

Commendations:

1. The orderly, comprehensive process of adopting the PBIS model in the Freshman Academy
2. The identification of and the growth of the use of the RIDER acronym for succinctly encompassing major features of the Lowell High School Core Values, Beliefs, and Learning Expectations
3. The commitment to the school's social and civic competencies as demonstrated by being highlighted and in murals, banners, and signs in high traffic areas of the school

Recommendations:

1. Ensure that a sufficiently wide range of stakeholders are involved throughout any processes for the development and future review of the school's core values, beliefs, and learning expectations
2. Ensure that the Lowell High School 21st century academic, civic, and social learning expectations for student learning are stated in measurable terms
3. Create school-wide analytic rubrics for each of the LHS student expectations that identify targeted high levels of achievements
4. Develop a procedure to ensure that the LHS core values, beliefs, and student expectations are actively reflected in the culture of the school, drive curriculum, instruction, assessment in every classroom, and guide the school's policies, procedures, decisions, and resource allocations
5. Develop a dynamic, collaborative, and inclusive process for regular review and revision, as needed, of the LHS expectations for student learning, based on research, multiple data sources, as well as on district and school community priorities

2

Curriculum

The written and taught curriculum is designed to result in all students achieving the school's 21st century expectations for student learning. The written curriculum is the framework within which a school aligns and personalizes the school's 21st century learning expectations. The curriculum includes a purposefully designed set of course offerings, co-curricular programs, and other learning opportunities. The curriculum reflects the school's core values, beliefs, and learning expectations. The curriculum is collaboratively developed, implemented, reviewed, and revised based on analysis of student performance and current research.

1. The curriculum is purposefully designed to ensure that all students practice and achieve each of the school's 21st century learning expectations.
2. The curriculum is written in a common format that includes:
 - units of study with essential questions, concepts, content, and skills
 - the school's 21st century learning expectations
 - instructional strategies
 - assessment practices that include the use of school-wide analytic and course-specific rubrics.
3. The curriculum emphasizes depth of understanding and application of knowledge through:
 - inquiry and problem-solving
 - higher order thinking
 - cross-disciplinary learning
 - authentic learning opportunities both in and out of school
 - informed and ethical use of technology.
4. There is clear alignment between the written and taught curriculum.
5. Effective curricular coordination and vertical articulation exist between and among all academic areas within the school as well as with sending schools in the district.
6. Staffing levels, instructional materials, technology, equipment, supplies, facilities, and the resources of the library/media center are sufficient to fully implement the curriculum, including the co-curricular programs and other learning opportunities.
7. The district provides the school's professional staff with sufficient personnel, time, and financial resources for ongoing and collaborative development, evaluation, and revision of the curriculum using assessment results and current research.

Curriculum

Conclusions

The curriculum at Lowell High School is currently not designed to ensure that all students practice and achieve 21st century learning expectations. The core curriculum for all students is not explicitly aligned with the Lowell High School expectations for student learning. Most of the current curriculum maps are not designed to ensure each student has multiple learning experiences that will by design address each of those learning expectations. They also contain no other appropriate, alternative paths, programs, and time options for additional student support. The school has types of tiered interventions that address instructional practices but they are not built directly into curriculum maps. Lowell High School has identified specific student learning expectations that reflect 21st century skills as noted in the Lowell High School Core Values, Beliefs, and Learning Expectations. The learning expectations are embedded, yet not necessarily delineated, in some curriculum documents. The curriculum maps and syllabi are completely in alignment with Common Core State Standards (CCSS), the newly updated Next Generation Science Standards, the WIDA standards, the CVTE standards, and the Massachusetts frameworks, yet not all are consistent in referencing the school's or any other version of 21st century learning expectations. The subject areas which use CCSS as the touchstone for curriculum development do include a version of 21st century learning expectations in their curriculum maps.

In order to graduate, LHS students must complete 90 credits, 50 of which are in core curriculum subject areas. Core subject areas, such as English, science, social studies, and math routinely provide students with opportunities to practice spoken and written communication, creative and critical thinking, collaboration, and responsible use of technology. Additionally, all incoming freshmen are required to take a freshman seminar course that reinforces these skills and emphasizes citizenship, general high school coping strategies, study skills, and responsible academic behavior. So, much of what drives the NEASC Curriculum Standard is present, but not necessarily by comprehensive design, but the teachers do it, as good teachers intuitively know what should be done. Lowell High School's wide range of academic programming is designed to serve all students, including special education and ELL populations. Elective courses ensure students have multiple opportunities for diverse learning experiences, but they are not always tied to a diversity of 21st century learning skills. Elective courses include the fine arts, business, culinary arts, social sciences, world languages, technology, and U.S. Air Force Junior ROTC Aerospace Science. The school has also established strong working relationships with Middlesex Community College and UMASS Lowell which serve to expand the available curriculum well beyond the school campus. There are strong examples present of courses that most clearly are responsive to and driven by the school's expectations for student learning. For instance, Advanced Quantitative Reasoning, a course specifically focused on problem solving, collaboration, and presentation skills, is based on the theory of discovery learning, an example of one of the few courses specifically focusing on 21st century learning skills. Another course, Engineering the Future, targets real-life application of critical and creative thinking. The school is rejuvenating its Pathways program which is designed to provide hands-on experiences that connect high school work to the skills and knowledge students need to be successful in post-secondary education and in their careers. LHS also

developed programs like the Latin Lyceum and offers a range of Advanced Placement and dual enrollment courses designed to mirror college level experiences. In addition to courses in the school's course catalog, Lowell High School provides students an eclectic mix of opportunities to expand their high school experience beyond the school campus and the confines of the classroom. In addition to the school's standard academic and sports offerings, teachers and staff advisors support approximately 32 diverse activities and clubs. Most, but not all, courses show evidence that each curriculum area assumes some responsibility for teaching at least one or more of the 21st century learning expectations, but most courses appear to address only one of the 21st century learning expectations as defined by Lowell High School which calls into question if every student is being exposed and assessed frequently enough regarding that expectation to ensure that the students have sufficient opportunity to practice and achieve it. When the curriculum manages to provide to each student numerous and broad experiences focused on each of the school's expectations, students will have a higher likelihood of achieving all of the school's expectations. (self-study, curriculum maps, syllabi freshman seminar course, pathways program, culinary arts lesson plan, teacher interviews)

Most curriculum documents are written in a format that includes units of study with essential questions, concepts, content and resources; only some curriculum documents also include instructional strategies and assessment practices including the use of school-wide analytic and course-specific rubrics. The school used Race to the Top funds, which allowed teachers to be compensated for developing the curriculum maps during after-school hours. After the completion of this initiative, the school has made little additional progress toward the goal of writing the curriculum maps in a common format. The school's 21st century learning expectations and instructional strategies are identified in some curriculum documents. Some teachers have incorporated instructional strategies and activities into their own curricula/syllabi, although there is no formal place on the common template for entering this information. A limited number of curriculum maps also include some course-specific rubrics and/or 21st century learning expectations. Since the College Board, CVTE, and the Perkins-funded elective Pathways prescribe stringent syllabus requirements, AP and dual enrollment courses are understandably excluded from the school's efforts to develop a common curriculum map.

Mention of assessment practices that include the use of school-wide analytic and course-specific rubrics is also not consistent. Curriculum maps are arranged by units of study with identification of essential questions, concepts, content, resources, and skills. Some of curriculum maps also include course-specific common assessment practices. For example, curriculum documents for English II, Advanced ESL, Google this, and Physical Education 1 and 2 are all organized similarly to include standards, essential skills/concepts to be targeted, and assessment evidence. Developing and using curriculum documents that comprise units of study including essential questions, content, and skills; the school's learning expectations; instructional strategies; and assessment practices that include the use of school-wide analytic and course-specific rubrics sufficiently exposes all students to a range of experiences which provides them numerous opportunities to practice and achieve the school's learning expectations. (self-study, Endicott survey, student work, teacher interviews, curriculum documents, teachers)

The Lowell High School curriculum emphasizes depth of understanding and to a lesser degree the application of learning. In that curriculum documents do include essential questions, they do provide for inquiry, problem solving, and higher order thinking. According to the Endicott survey, 75 percent of students agrees that the courses they take challenge them to think critically and to solve problems. Roughly 72 percent of parents agrees that the Lowell High School curriculum encourages their children to question things that they are curious about, and roughly 80 percent feels that the existing curriculum supports the development of higher order thinking and problem-solving skills. This is echoed by 72 percent of staff members agreeing that, “the curriculum in [their] department/content area emphasizes depth of understanding and application of knowledge.” Academic departments at LHS have worked to emphasize these skills during recent curriculum refinement and alignment efforts. The Lowell High School Pathways program is an example of an approach that provides hands-on experiences connecting high school course work to the skills students need for post-secondary education and careers.

The LHS curriculum does not currently emphasize cross-disciplinary learning, although classroom observations did provide evidence that teachers do, on their own, make cross-disciplinary connections. Bearing this out, according to the Endicott survey, 62.3 percent of students agrees that “[their] teachers include topics from other subject areas in [their] classes,” and 72.9 percent agrees that, “information [they] learn in one class can be used in other classes.” Despite this high rating by students, only 36.2 percent of staff agrees. Cross-disciplinary learning does not occur and is not evident in any curriculum documents. The school is lacking sufficient formal curriculum documents that are jointly developed and supported by more than one department. Curriculum documents also lack consistent inclusion of connections or enhancements that encourage or formally guide teachers and students to stretch their learning acquisition across departmental boundaries.

Despite the presence of examples such as culinary arts, fine and performing arts, and business, across the entire span of the curriculum authentic learning opportunities both in and out of school could be more prevalent. On the positive side, in the last school year (2014-15), excluding the 30 days of testing when field trips not allowed, the school approved 134 field trips which means that the school on average had field trips go out on 90% of the eligible days last year. Additionally, including the students who are interning in the school restaurant, the school store (at in-school and downtown sites), and the bank located within LHS, the school had just over 200 students out on internships this year.

The school has developed a policy for the in and out of school informed and ethical use of technology as well as an online acceptable use policy for students. While students and parents believe the ethical use of technology is emphasized in the LHS curriculum (79.1 percent and 63.4 percent, respectively), a smaller number of teachers agrees (56.9 percent). The freshman seminar curriculum, which was recently rewritten, includes lessons on technology resources available to students, and refers to the core values (responsibility, integrity, determination, engagement, and respect) and in doing so, is a good example of using core values to drive school policies and programs. The ethical use of technology is also emphasized in some of the taught English curricula, although it is not included in the curriculum documents. For example, the English I curriculum includes a lesson on “Digital Citizenship and Acceptable Use Policies,” and a quarterly assessment in English II clearly establishes the requirements

for citing sources, the methods for doing so, and the consequences for plagiarism on a research paper. Lab science teachers provide similar directions on lab report assignments. Technology skills and informed use are also a consideration. The *Pride and Prejudice* project requires the use of iMovie, which is one example of a 21st century technology skill. While the ethical and regular use of technology is present, the curriculum does not consistently reference the understanding of that concept as a goal. A truly comprehensive curriculum will include a consistent focus on depth of understanding, inquiry and problem solving, higher order thinking, opportunities for cross-disciplinary learning, authentic learning, and the integration of technology as a tool for learning and teaching thereby allowing students “to complete academic work both independently and cooperatively in a productive manner.” (self-study, Endicott survey, curriculum documents, student work, shadowing students, teachers, freshman seminar curriculum)

There is clear alignment between the written and taught curriculum at LHS. Common assessments, common writing prompts, emphasis on instructional pacing, and common questions on midterms and finals help to maintain that alignment. Common assessments seem to be the most prevalent and effective tool to regulate the teaching of the written curriculum. The common assessments also serve as a source of data to inform and modify future instruction not just for a teacher but for the department. In support of the achievement of this goal, staff members meet to create the common assessments, and then are responsible for delivering curriculum content, the mastery of which will then be assessed. Also, Lowell High School is in the process of clearly strengthening the alignment of the written and taught curricula by incrementally increasing common planning time among staff members. Currently, not all staff members have common planning time, with some staff sacrificing prep periods or before or after school time to collaborate. As a partial remedy to this, the school embeds opportunities for collaboration are in the monthly professional development/early release time, which is devoted to departmental work around curriculum, instruction, and assessment and to teacher-led workshops focused on sharing and collaborating around best practices. Additionally, the math department’s recent institution of a highly collaborative professional learning network (PLN) for groups of geometry, algebra, and pre-calculus teachers can serve to advance the goal of alignment between the written and the taught curriculum. According to the Endicott survey, 64.9 percent of the staff believes the written and taught curricula are aligned. Also, administrators and department heads conduct frequent, informal walk-through observations one of the goals of which is to assess whether the written curriculum is being delivered. Continued attention to ensuring the clear alignment between the written and the taught curriculum ensures equity of opportunity for all students to achieve the school’s academic expectations. (self-study, Endicott survey, classroom observations, curriculum documents, student work, student shadowing, teachers)

Vertical curricular coordination and articulation does not effectively exist with sending schools in the district with there being no coordination among departments or between sending schools. No formal opportunities exist, however, that allow departments to collaborate formally with the teachers in the sending schools. The school/district lack(s) a formal, codified process for curriculum collaboration and information sharing between sending schools and LHS, potentially impeding student academic success when transitioning to the high school by duplicating taught curriculum and/or not recognizing gaps in

curriculum coverage. Similarly, the curriculum is not aligned across disciplines which would provide opportunities for developing cross-disciplinary curricula. Teachers voice suggestions and concerns to the department head, who in turn shares the suggestions and concerns with the curriculum coordinator. The curriculum coordinator then shares the information with sending schools. Increased communication and collaboration between among sending schools and the high school will increase student academic support and provide additional data to track progress or challenges. The process of providing direct and timely feedback related to curriculum alignment should be more direct. The weakness is between the sending schools and the high school, not from 9-12. At LHS the department structure, with a lead teacher and a department head overseeing curriculum, ensures that there is clear articulation between grades 9-12 in every department. The school/district, however, does not have an established curriculum review cycle which would by its very nature provide formal opportunity for teachers to collaborate along both vertical and horizontal lines within departments as part of the process for the development, review, and evaluation of the curriculum.

Although some teachers claim that the curriculum maps have not been updated since 2012, central administration, department chairs, and the curriculum coordinators report the maps as being living documents and under constant review and revision. The current curriculum maps were created in 2012 through the use of the Race to the Top grant funds with a particular focus on aligning them with the Common Core and with a substantial amount of work being completed through departmental initiatives and compensated professional development. The current maps, updated on a continuing basis as they are revised, are easily accessible on each department's shared Google drive in an electronic format.

Department heads hold regular meetings with teachers to address instruction and curriculum to the degree that time allows. On occasion (e.g., discussion about safety issues), some of the meeting time is set aside for district priorities. During the past two-years, as is typically the case for schools planning an accreditation visit, significant meeting time, the early release time, normally devoted to that activity has been devoted to the preparations for the NEASC visit. Under the normal format, i.e., in years not involving significant allocations of time to accreditation, two hours out of the three-hour time block is spent with the departments focusing on curriculum, instruction, and assessment. Also, every year core departments receive PD hours allowing teachers to revisit curriculum maps in the courses that need updating. This represents an annual expenditure of approximately \$10,000 of local funding.

The cluster system implemented in the Freshman Academy fosters communication across the academic areas at that level providing frequent opportunities for consultation between the core area teachers. A fully integrated curriculum covering the years leading up to the high school and the high school years ensures smooth learning transitions and a full opportunity for all students to succeed. (self-study, Endicott survey, curriculum documents, student work, student shadowing, teacher interviews, department heads, teachers, central office personnel, students, curriculum coordinator)

Staffing levels, instructional materials, technology, equipment, supplies, facilities, and the resources of the library/media center are not consistently sufficient to fully implement the curriculum including the co-curricular programs and other learning opportunities. School expenditures for instructional materials,

supplies and technology to properly implement the curriculum have varied over recent years. Staff members do not all have equitable and dependable access to technology and materials for curriculum instruction, including limited access to updated textbooks, access to computers, and access to technology within the classroom. Put more broadly, not all areas of the curriculum are fully supported to implement the actual delivery of the school's curriculum. At LHS, class sizes vary widely among departments, course sections, and classes. Decisions about class size reflect an effort to balance the needs of students with available resources. Classes that serve challenging, high-risk populations are intentionally kept under 23 whenever possible. A number of noteworthy trends are evident. For instance, the enrollment demand in world languages and the desire to maintain a rich catalog appear to be factors in course size discrepancies. Honors Latin 3 and 4 have average class sizes of 33 students, while there are only five students enrolled in AP Latin 4. Spanish classes at honors level I and II exceed 30 students, while there are 20-25 at the college level; French classes at beginning levels have average enrollments of 25-30 students; Khmer courses average in the high 20s (26-29). The school clearly is making decisions on faculty allocations to best meet needs but with limited resources. In the science department, similar enrollment discrepancies exist. For example, there are currently 11 students enrolled in the off-site University of Massachusetts Lowell (UML) M2D2 course, while AP, Honors, Lyceum, and other UML partner courses have average class sizes in the low to mid-20s. High demand and specialization are reasons for large class sizes in business courses. More than half the classes in the business department have 25-30 students. In general, social studies, English, and math appear to have the most even distribution of larger class sizes among required courses at all levels. In social studies, 11 of 26 total courses have average student enrollments of 25 or greater, with the highest being 30. Eight of the total classes offered have average enrollments of 20 to 24 students. Similarly, 20 of 24 total English courses have average class enrollments of 20 students or greater, with 7 having average class sizes between 25 and 28 students. Math, which offers 30 different courses, has 19 courses with average class sizes of 20 students or greater, with most (12) falling in the 25 to 29 average class size range.

Overall funding has been fairly consistent with some variance year due to enrolment variations and the identification of student needs, e.g., increases/decreases in the ELL population. Over the past three years, the budget has provided about \$330,000 in categories such as technology, textbooks, instructional supplies, and library/media. Currently, 10 computer labs are shared by over 200 staff members and over 3,000 students. Most computer labs have at least 30 computers. While the current facility includes 33 classrooms equipped with Apple TVs and mobile iPad carts, and ten classrooms recently outfitted with SMARTBoards, the use of such technology is generally limited to those classrooms and the trained teachers using them. While the current budget does not contain specific earmarks for the expansion of new technology to other classrooms, the library media center, or to the computer labs, the school does purchase document cameras and projectors when the budget allows. Twenty of these were added to classrooms across all academic departments in 2014-2015. A few classrooms have older model PCs dedicated to student use, but LHS does not provide classroom sets of mobile laptop computers or other digital devices for general use by teachers or students except in the Apple TV/iPad equipped rooms. The school is making headway to the extent that the budget currently allows. One recent technological improvement this past summer was the installation of Wi-Fi hotspots in most classrooms, which has improved connection to the Internet throughout the school via personal mobile devices. Technology

access is not equitable among all staff. Most staff members have at least a document projector; a few teachers have access to an interactive white board, while others in the EdGE classes have three Apple monitors in their classrooms. Some teachers have to share a document projector. Other teachers have iPad carts, but the electronic devices are designated for that teacher's classroom use alone. The school has 5 iPad carts with one tied specifically to one classroom and 3 Macbook Pro carts for teachers to share.

Library facility and resources are critically lacking. The LHS Comprehensive Facilities Assessment completed as part of the preparations for the proposal for a new/refurbished Lowell High School makes that clear. Library technology resources are a key area of need for LHS, a school with a potentially significant student population that needs access to technology while present in school. Space and technology to meet those student needs is at a critical stage. At present, the library also assumes responsibility for the general management of the nine computer labs and a new language lab. The Comprehensive Facilities Assessment also makes note of the general inadequacy of available academic spaces which include general purpose classrooms, seminar areas, science labs and classrooms, and teacher work areas. LHS student activities have been consistently funded by a budget of \$35,000 per year since 2010-2011. Level funding over time, however, does not necessarily translate into level services. The school's sports program is extensive, partially due to the school's ability to offer athletic programs at no cost. When all of the components of a strong school curriculum are not only existent, but are fully supported, students have the highest likelihood of achieving the school's expectations for learning. (self-study, teacher interviews, Endicott survey, curriculum maps, examination of student work, student shadowing, LHS Comprehensive Facilities Assessment, Curriculum Standard Subcommittee)

The district does not provide the school's professional staff with sufficient personnel, time, and financial resources for ongoing and collaborative development, evaluation, and revision of the curriculum using assessment results and current research. If there is time, teachers review the data from common assessments, target gaps in the curriculum, and make changes to course components and assessments. Since the completion of the NEASC preparatory activities the early release days have been devoted to a two-hour department meeting (focused on curriculum, instruction, and assessment) and a one-hour, teacher-led workshop focused on sharing best practices. Not all faculty members and student support service personnel are involved in the development, evaluation, and revision of curriculum. On this topic, the resounding request from staff members is for common planning time. The last full scale revision of the curriculum occurred with the planning of the curriculum maps four years ago. There is no evidence of a full scale comprehensive curriculum revision since. Curriculum revision does occur, however, in response to an identified need, for example, work on curricular changes based on MCAS data; that usually happens during regular above mentioned department meetings/early release days. Common planning time is provided to the Freshman Academy, among teachers of co-taught classes. Math teacher PLNs and teachers of courses selected by also have common planning time for curriculum and assessment work. This data conflicts with the teacher response to the Endicott survey where only 14.9 percent of staff members believes that they "have sufficient time to be engaged in formal curriculum evaluation, and to review and revise work." The district provides leadership for curriculum

coordination and articulation via a stipend position. Teachers work on curriculum development after hours or during the summer. Through the use of professional development funds during the past two years, the school leadership team has enabled departments to pay teachers to focus on curriculum development and revision for courses in need of review and revision. In addition the school has also used professional development funds to secure ten days of subs for a group of teachers to work on curriculum writing and revision. This is done as a stipend after-work opportunity for teachers who choose to take it. As noted in the above example, MCAS-linked courses are subject to more frequent evaluation and revision of the curriculum. Other courses are not as frequently evaluated and revised. As evident in the curriculum maps, even within departments, staff members are not in synch with curriculum expectations. Providing sufficient personnel, time, and financial resources to curriculum revision and full scale involvement of the entire professional staff ensure the maintenance and full support for a vibrant, ever-evolving, organic curriculum. (self-study, teacher interviews, Endicott survey, curriculum maps, student work, student shadowing)

Commendations:

1. The Lowell High School's Pathways program that provides hands-on, minds-on experiences connecting high school course work to the skills and knowledge students need for post-secondary education and careers
2. The development of courses that provide experiences that mirror offerings at the college level, including Latin Lyceum, Advanced Placement, and dual enrollment
3. The use of essential questions in designing curriculum which strongly focuses on inquiry, problem, and higher order and big picture thinking
4. The emphasis on the ethical use of technology in some sections of the English curriculum
5. The use of the monthly department meetings which provide teachers with the opportunity to create, implement, and review common assessments, to target gaps in the curriculum, and to make changes to course components and assessments ultimately benefiting teaching and learning
6. The math department's recent institution of a highly collaborative professional learning network (PLN) for groups of geometry, algebra and pre-calculus teachers
7. The core academic departments annual use of some professional development funds to run highly effective data summits for grade-level teams

Recommendations:

1. Undertake an audit of the degree to which the current curriculum and its practitioners provide sufficient opportunities in multiple settings across the school day for students to practice and achieve each of the school's learning expectations and act on the results
2. Develop a curriculum template whose form will allow for the identification in all courses or units of study essential questions, concepts, content, and skills; the school's 21st century skills that will serve as the focus of each course; instructional strategies; and assessment practices that include the use of school-wide analytic and course-specific rubrics

3. Develop a plan to ensure that the curriculum engages students in cross-disciplinary learning, provides authentic learning opportunities, and engages student in the informed and ethical use of technology in all courses
4. In consultation with the district design a plan that will ensure sufficient vertical communication about curriculum with all sending schools to directly share and/or discuss data, trends in instruction, and curriculum, and that will ensure sufficient horizontal and vertical communication about curriculum for all curriculum areas
5. Ensure that all curricula (CCSS, NGSS, MA frameworks, etc.) identify the 21st century skills upon which they will focus
6. Conduct a needs assessment to determine the optimum levels of support for staffing, instructional materials, equitable and effective access to technology, equipment, supplies, facilities, and the resources of the library/media center
7. Develop a plan for the regular review of the curriculum that engages and supports all professional staff in the collaborative development, evaluation, and revision of the curriculum using assessment results and current research

3

Instruction

The quality of instruction is the single most important factor in students' achievement of the school's 21st century learning expectations. Instruction is responsive to student needs, deliberate in its design and delivery, and grounded in the school's core values, beliefs, and learning expectations. Instruction is supported by research in best practices. Teachers are reflective and collaborative about their instructional strategies and collaborative with their colleagues to improve student learning.

1. Teachers' instructional practices are continuously examined to ensure consistency with the school's core values, beliefs, and 21st century learning expectations.
2. Teachers' instructional practices support the achievement of the school's 21st century learning expectations by:
 - personalizing instruction
 - engaging students in cross-disciplinary learning
 - engaging students as active and self-directed learners
 - emphasizing inquiry, problem-solving, and higher order thinking
 - applying knowledge and skills to authentic tasks
 - engaging students in self-assessment and reflection
 - integrating technology.
3. Teachers adjust their instructional practices to meet the needs of each student by:
 - using formative assessment, especially during instructional time
 - strategically differentiating
 - purposefully organizing group learning activities
 - providing additional support and alternative strategies within the regular classroom.
4. Teachers, individually and collaboratively, improve their instructional practices by:
 - using student achievement data from a variety of formative and summative assessments
 - examining student work
 - using feedback from a variety of sources, including students, other teachers, supervisors, and parents
 - examining current research
 - engaging in professional discourse focused on instructional practice.
5. Teachers, as adult learners and reflective practitioners, maintain expertise in their content area and in content-specific instructional practices.

Instruction

Conclusions

Teachers' instructional practices are not continuously examined to ensure consistency with the school's core values, beliefs, and 21st century learning expectations. The Freshman Academy has created and embraced the core values derived from the Positive Behavioral Intervention System (PBIS) and are consistently incorporating them into daily lessons. In the upperclassman buildings, however, the core values are less evident in guiding practice and the PBIS system has only recently been endorsed on a broad basis and is only in process of being adopted. The school's core values are displayed prevalently within the school, but they are not being integrated as a driving force into daily lessons or goals or instructional practice. Lowell High School teachers believe that students should strive toward each facet of the Responsibility, Integrity, Determination, Engagement, and Respect (RIDER) acronym summing up the core values, but they do not necessarily use them explicitly in instructional practice nor do they consistently make reference to the school's expectations. Although the facets of RIDER are prevalently displayed in hallways and on ID tags, they are not commonly or uniformly connected to instruction in a deliberate way. In and of itself the simple existence and recognition of RIDER and the identification of the school's expectations are not sufficient to inform instruction. While teachers individually believe that students should be competent in the 21st century learning expectations and refer to them within their classes, they do not systematically align their instructional practices with them, and no formal program is currently in place to make this a reality. When teachers collectively embraced the school's core values and then identify and develop instruction practices that are driven by and serve those core values, the school will develop a strong instructional culture. (self-study, facility tour, teachers, student work, students, Endicott survey, school leadership, teacher interviews, student shadowing)

(The percentages cited below are based on the identified frequency of the appearance of the various instructional strategies spelled out in the second indicator of this Standard during classroom observations by the visiting committee. It is highly unlikely that all seven of the identified instructional practices would be employed in a single given lesson. The percentage figure, however, provides a picture of the frequency of their use in classes on a comparative basis.)

Instructional practices show varying levels of support for the achievement of the school's 21st century learning expectations, core values, and beliefs. Instructional practices do not yet show consistent support of the achievement of the school's 21st century learning expectations by personalizing instruction. According to the Endicott survey, 69 percent of parents feels that their son's/daughter's teachers personalize instruction to support his/her achievement of the school's learning expectations, but only 43 percent of students feels that teachers personalize their instruction. Options are provided to students for course selection and book choices used in several assignments, but avenues to show conceptual competency are less flexible. Only 38 percent of the visiting team's classroom observations showed evidence of personalized instruction that targets each student's learning style.

The school acknowledges that instructional practices do not uniformly support the achievement of the school's 21st century learning expectations by engaging students in cross-disciplinary learning. Instructionally driven cross-disciplinary learning was evident in only 25 percent of classroom observations. The school is able to cite some good examples of cross-disciplinary instruction (e.g., connections between social studies and English Language arts and between math and anatomy). Some programs such as special education, Latin Lyceum, and Freshman Academy are better able to engage students in cross-disciplinary learning because they are clustered and teachers have common planning time within the schedule. In other classes, some teachers work closely with other departments to create courses, but cross-disciplinary lessons occurred more informally or by happenstance rather than by purposeful planning. The school does not have a school-wide process or training to facilitate the identification, planning, and execution of cross-disciplinary lessons.

Teachers' instructional practices do not consistently support the achievement of the school's 21st century learning expectations of engaging students as active and self-directed learners. LHS is in the process, however, of shifting from a teacher-driven pedagogy to a more student-centered and outcome-driven approach. Teachers are utilizing the benefits of this educational methodology which creates more active and authentic learning by shifting the onus of responsibility to the student and developing more student-centered and project-based lessons and assessments. In 63 percent of classroom observations, students were engaged as active learners. This level of engagement was most common in the honors and AP levels, but it is unclear if this type of learning is equally common at the college prep level.

The school can cite several examples of instructional practice that emphasizes inquiry, problem solving, and higher order thinking. What is lacking is consistent evidence of those instructional traits across all disciplines and levels. Even granting the need to deal with mastery of basic concepts in foundation level classes, the need exists to make these traits evident in all classes to the extent possible considering the needs and abilities of students.

Teachers' instructional practices provide support for the achievement of the school's 21st century learning expectations by applying knowledge and skills to authentic tasks within specific subject areas. Sixty percent of classroom observations saw evidence of authentic learning taking place. The school has been working on increasing the frequency of authentic learning experiences as the school moves toward a more student-centered approach to teaching/learning. Although some classes provide these opportunities, they are not pervasive throughout the entire school. In some elective classes such as culinary, business, fine and performing arts, and broadcasting, students are able to learn real-life skills in an authentic setting such as a working restaurant, TV studio, or music performance. Students in these classes enjoy the knowledge that what they are learning is directly applicable to life post LHS. Dual enrollment classes also offer students an authentic experience with college syllabi and lectures and prepare them for what to expect at the university level.

Teachers' instructional practices do not fully support the achievement of the school's 21st century learning expectations by engaging students in self-assessment and reflection. According to the Endicott survey, over 71 percent of the students surveyed feel that their teachers provide them with opportunities

to assess their own work, but these opportunities were only witnessed in 30 percent of the visited classrooms. Graded assignments, with some exceptions, also do not allow for students to respond, reflect, or improve upon their original understanding.

While the school's instructional practices regularly integrate technology at present, the school's expectation for student learning in that regard, "To develop an ability to use a variety of mediums – including the creative and technological – in the process of learning, and demonstrate their acquired learning through the use of those mediums," as written does not provide a clear definition of what that should look like. The absence of such a clear definition creates difficulty in determining what level/type and degree of application of integration is desirable and acceptable. Technology is used in most classes in some capacity including in-class use of iPads, computer research, specialized software, EDGE classrooms, interactive whiteboards, and document cameras. Although not required, most teachers use Google classroom, Aspen pages, EdLine, or a similar class website program to make instructional materials, expectations, homework, plans, grades, and resources available for students and families to view. Students in dual enrollment classes attend college lectures from UML or MCC via a digital lecture room with a two-way microphone to allow for real-time question and answer sessions. LHS recently added a position for an instructional technology specialist to assist teachers in the incorporation of effective technology use within their classrooms. Technology is playing a greater role in classroom instruction at LHS, but resources are not distributed equitably and not all teachers have equal access to all technological tools. Although the school has 1.5 tech support personnel and 1.0 ITS person at the high school, unreliable Internet connections, a district-level issue, make it difficult to plan and deliver technology-rich lessons hinder teachers. When schools identify and expand the use of instructional practices that highly support the school's 21st century learning expectations, student are better situated to achieve at the highest levels. (self-study, facility tour, teachers, students, Instruction Standard Subcommittee, student shadowing, Endicott survey, teacher interviews, classroom observations, department heads, school leadership)

Teachers adjust their instructional practices to meet the needs of each student to varying degrees. Teachers often adjust their instructional practices to meet the needs of each student by using formative assessment, especially during instructional time. Formative assessments are mostly embedded in lessons through activities such as exit tickets, Socratic discussions, and teacher observations during activities. Teachers mainly use these formative assessments within the specific classes to provide feedback on the level of student comprehension to guide the teacher. Based on formative feedback teachers on occasion may reteach the same material to allow student to reach mastery of the material. Teachers employ activities such as journaling, K-W-L charts, dip-sticking, and exit tickets. Use of these and similar strategies varies greatly from teacher to teacher.

Teachers at Lowell High School do not consistently adjust their instructional practices to meet the needs of each student by scaffolding and strategically differentiating instruction for the success of the students. According to the Endicott survey, teachers used differentiated instructional practices to meet the learning needs of all students over 77 percent of the time. Only 47 percent of classes were observed using these strategies and there was no further evidence to invalidate the inconsistency of the data. Teachers are

generally aware of individual student needs and do target personal benchmarks and take time to work with students who need additional help. In response to the need to differentiate, teachers use sentence starters, jigsaw readings, tiered vocabulary, and graphic organizers to meet the needs and learning styles of all students. Teachers also selectively provide students opportunities to work at their own pace with teacher guidance, allowing more time to students who need more guidance and direction.

Teachers consistently adjust their instructional practices to meet the needs of each student by purposefully organizing group learning activities. Many teachers use group learning by establishing groups during instructional time for labs and problem solving as well as for out-of-class activities. Lessons involving groups are designed to be collaborative and provide opportunities for real-life experiences of working with others to create a final product.

Teachers adjust their instructional practices to meet the needs of each student by providing additional support but do not often offer alternative strategies within the regular classroom. The Endicott survey shows that over 76 percent of parents reports that teachers provide additional support to their sons/daughters when needed. Most teachers make a concerted effort to be available and responsive to student needs. Extra-help sessions are scheduled and well communicated. Alternative strategies that are employed include providing abridged texts and books on tape, and access to tutors and student teachers. Teachers care about students and often choose to give up free time both during and outside of contractual hours, to meet academic, instructional, and outside needs of students. Teachers are more concerned with the skills that the students are attaining rather than how much of the material they are able to get through in accordance with a school-wide push for more student-centered learning. Most teachers at LHS are attuned to the fact that each student is an individual with distinct needs who will progress at his/her own pace. Teacher efforts help students to find success in their own time, but not necessarily to demonstrate it in their own way. When teachers use a broad range of instructional strategies that engage students in a wide range of learning modalities, student mastery of learning increases. (self-study, student shadowing, classroom observations, teacher interviews, Instruction Standard Subcommittee, Endicott survey, facility tour, student work, teachers, students)

Teachers, individually and collaboratively, have limited time to work to improve their instructional practices by using student achievement data from a variety of formative and summative assessments; however, individually, they do attempt to find time to review current research, and to solicit feedback from colleagues. Teachers and chairs across all departments use student achievement data from standardized tests, common assessments, a variety of formative and summative assessments, and District Determined Measure (DDM) scores to identify the weaker areas upon which to focus in order to improve instruction. The schedule and locally negotiated agreements provides limited time during monthly early release days to analyze this data. District-wide and departmental groups meet vertically to look at student data, i.e., Massachusetts Comprehensive Assessment System (MCAS), SRI, writing folders. Teachers use prep time to collaborate with peers and express a desire for common planning time to facilitate a systematic approach to using data to inform instructional practices in that presently no formal system provides a framework for all teachers to use formative assessments to help expand the range of

instructional strategies. Department heads do create meeting times and provide coverages for teachers for those purposes.

Given the state of the current schedule teachers do not currently have the opportunity to improve their instructional practices by examining student work. With no time formally allotted in the current schedule, most teachers are unable to meet in departmental and common grade teams to examine student work. The adoption of DDMs gives teachers an avenue to analyze the completed assessments, but the degree to which they are currently used varies within the departments. In specific programs such as the Freshman Academy and special education, teachers work in clusters and are able to do this work within their assigned schedules. Teachers in the upper grades do not work in clusters and do not have the benefit of flexible scheduling. Common planning time is widely requested but extremely difficult to provide given the current schedule for the upper grades. In some instances, departments create their own time by covering classes for colleagues during their prep times or duties. In other cases, teachers independently schedule times to meet when they happen to have common prep time or during lunch times and after-school hours. The ELL department is in the midst of an initiative to meet regularly to assess the accuracy of student placement based on their skill level.

Teachers, individually and collaboratively, work to improve their instructional practices by using feedback from a variety of sources, including students, other teachers, supervisors, and parents. Department heads and lead teachers serve as instructional leaders and frequently engage in formal and informal discourse centered on instructional strategies. Teachers receive formal feedback from administrators through the evaluation system. In addition, the recent instructional rounds allow for a non-evaluative look into classes so that instructional trends can be identified within the building. A culture embedded in LHS of teacher-to-teacher observation is extant and coverage will be found for an individual teacher to observe a colleague. Parents are able to give feedback to teachers through scheduled events such as open house and conferences as well as through emails and informal conversations, but the school has not developed formal outreach processes that solicit feedback from parents and students.

Teachers improve their instructional practice by keeping abreast of current research through journals articles, book-shares, and district-based professional development. Teachers improve their instructional practice by keeping abreast of current research through journals articles, book-shares, and district-based professional development. Departments provide some of this to teachers in their departments with the goal of keeping their department on the cutting edge of best practices in teaching and learning. The school's teacher center has been recently updated and provides teacher toolkits, and the departments each have their own spaces with resources for the department. The LHS support specialists have offered specific training on using Google Aps/Classroom, iPad integration, and content-based enhancement through technology.

Most teachers, individually and collaboratively, improve their instructional practices by engaging in professional discourse focused on instructional practice. Most LHS teachers are unable to collaborate and examine instructional practices as much as they would like due to a lack of common planning time.

New teachers to LHS are assigned a mentor with whom they can discuss instructional strategies. The mentor/mentee teams attend the Lowell Teacher Academy (LTA) together. The LTA entails a three-year commitment with built-in cycles of inquiry/observation with the mentor and coursework required through the auspices of Fitchburg State. The teachers' participation is mandated as part of their employment. Teachers are also involved in consistent discourse with lead teachers and department heads both informally and through the education evaluation process. Their dedication and willingness to give their own time and to maintain their accessibility leads to students and families to feel cared for and to understand that their success is important. When teachers engage in a wide of activities focused on improving instructional strategies, they substantially improve the ability of students to more fully achieve the school's expectations for learning. (self-study, teachers, students, Endicott survey, student shadowing)

LHS teachers, as adult learners and reflective practitioners, maintain their expertise in their content areas and in content-specific instructional practices in a variety of ways, including in-house professional development conducted by department heads and instructional specialists, university courses, and out-of-district professional development such as Primary Source. Teachers are encouraged to attend professional learning opportunities both given by Lowell High School as well as outside sources. Teachers improve their instructional practice by keeping abreast of current research through journals articles, book-shares, and district-based professional development. All teachers within the first three years of employment are required to enroll in the Lowell Teacher Academy, an innovative mentoring program which involves enrolling in three courses devoted to developing instructional practices for graduate credit in conjunction with Fitchburg State University. According to the Endicott survey, over 80 percent of students reports that their teachers are knowledgeable about the subjects that they teach and 87 percent of teachers feels that they maintain expertise in their content area and in content-specific instructional practices. LHS hosts a variety of workshops and trainings and provides course tuition reimbursement for university-level instruction that is successfully completed. Professional development opportunities have traditionally been offered outside of the school day; however, monthly professional development is not sufficient to meet the needs of teachers to support their instruction of 21st century learning expectations. In the rapidly changing world of education, the need to keep current in pedagogical techniques and in the use of emerging technologies plays a prominent role in professional development. (self-study, teachers, Endicott survey, students, school leadership)

Commendations:

1. The full embrace by the Freshman Academy of the core values derived from the PBIS and its use of those core values to guide and shape instructional practice
2. The purposeful move from a teacher-centered to a student-centered approach to pedagogy that more fully engages students as active and engaged learners
3. The presence in a number of courses such as culinary, business, fine and applied arts, and broadcasting that are fully centered on applying knowledge and skills to authentic tasks
4. The burgeoning use of technology to support the vibrant delivery of class content and to make college courses accessible to all students

5. The strong school culture that supports non-evaluative teacher observations and an openness that creates the opportunity for peer observation and the sharing of successful instructional practices
6. The strong partnerships with local colleges that enable students to earn college credits
7. The general willingness across the faculty to give freely of their time to assist students, to examine student work, and to engage with colleagues in focused discussions about assessment results all with an eye toward improving instruction
8. The adoption of the use of the District Determined Measure (DDM) scores to identify the weaker areas upon which to focus in order to improve instruction.
9. The strength of the Lowell Teacher Academy in supporting the new teacher-mentor program and in providing professional development opportunities focused on expanding the range of effective instructional strategies

Recommendation:

1. Conduct a school-wide audit of instructional strategies and identify and advance the use of those strategies that improve the students' achievement of the Lowell High School 21st century learning expectations
2. Develop and execute a plan, with sufficient financial support and dedication of professional development time, to increase the level of use in all classes instructional strategies that personalize instruction, engage students in cross-disciplinary learning, engage students as active and self-directed learners, emphasize inquiry, problem solving, and higher order thinking, engage students in self-assessment and reflection, and further integrate technology
3. Ensure that all teachers have adequate and equitable access to resources that support the full-scale integration of technology as a tool for instructional practices and a support to student learning
4. Develop and execute a plan to increase the use of all manner of formative assessment within each classroom as a means of providing a basis for improving outcomes in instructional practice
5. Provide as feature of instructional practice more frequent opportunity for students to be able to demonstrate comprehension in a manner in keeping with their learning style
6. Increase opportunities for common planning time to improve instructional practice and to provide opportunities for relevant professional development within contractual hours
7. Develop a formal process for successfully soliciting input from students and parents focused on instructional practice



Assessment of and for Student Learning

Assessment informs students and stakeholders of progress and growth toward meeting the school's 21st century learning expectations. Assessment results are shared and discussed on a regular basis to improve student learning. Assessment results inform teachers about student achievement in order to adjust curriculum and instruction.

1. The professional staff continuously employs a formal process, based on school-wide rubrics, to assess whole-school and individual student progress in achieving the school's 21st century learning expectations.
2. The school's professional staff communicates:
 - individual student progress in achieving the school's 21st century learning expectations to students and their families
 - the school's progress in achieving the school's 21st century learning expectations to the school community.
3. Professional staff collects, disaggregates, and analyzes data to identify and respond to inequities in student achievement.
4. Prior to each unit of study, teachers communicate to students the school's applicable 21st century learning expectations and related unit-specific learning goals to be assessed.
5. Prior to summative assessments, teachers provide students with the corresponding rubrics.
6. In each unit of study, teachers employ a range of assessment strategies, including formative and summative assessments.
7. Teachers collaborate regularly in formal ways on the creation, analysis, and revision of formative and summative assessments, including common assessments.
8. Teachers provide specific, timely, and corrective feedback to ensure students revise and improve their work.
9. Teachers regularly use formative assessment to inform and adapt their instruction for the purpose of improving student learning.
10. Teachers and administrators, individually and collaboratively, examine a range of evidence of student learning for the purpose of revising curriculum and improving instructional practice, including all of the following:
 - student work
 - common course and common grade-level assessments
 - individual and school-wide progress in achieving the school's 21st century learning expectations
 - standardized assessments
 - data from sending schools, receiving schools, and post-secondary institutions
 - survey data from current students and alumni.
11. Grading and reporting practices are regularly reviewed and revised to ensure alignment with the school's core values and beliefs about learning.

Assessment of and for Student Learning

Conclusions

Lowell High School does not employ a formal process, based on school-wide rubrics, to assess whole-school and individual student progress in achieving the school's 21st century learning expectations. As a first step, the school has not developed school-wide rubrics to assess the school's 21st century learning expectations. Then, in turn, the school's 21st century learning expectations are not embedded in curriculum maps in any organized or systematic fashion and therefore are not as well known as they should be by teachers and students. Many teachers, however, do use rubrics to assess learning expectations in the classroom and some departments use common rubrics to assess student progress in achieving course-specific learning expectations. According to the Endicott survey, 76.2 percent of students reports that their teachers use rubrics to assess their work. Some departments use common planning time and data summits to assess common assessment results, such as Massachusetts Comprehensive Assessment System (MCAS), Assessing Comprehension and Communication in English State-to-State (ACCESS), and other data; however, this is not widely undertaken across the school. Without a formal process to assess whole-school and individual student progress in achieving 21st century learning expectations, Lowell High School does not have sufficient data to continuously evaluate the level of achievement by the school of its learning expectations, to adjust instruction, or to revise curriculum. (self-study, teacher interviews, panel presentation, teachers, Assessment Standard Subcommittee, department chairs, school leadership)

The school does not communicate individual student progress specifically in terms of the achievement of the school's 21st century learning expectations to students and their families. The school does employ traditional processes to report elements of student progress to students and their families, including student report cards, MCAS results mailed to parents, and by way of the Aspen parent and student portal. Most individual teachers communicate student progress with students and families using email, EdLine, and teacher websites. The school also does not communicate its progress in terms of the achievement of identified 21st century learning expectations to the school community at large. The school sends home a copy of the school NCLB Report Card with each student. Because there is no formal process for evaluating the school's progress in terms of meeting its 21st century learning expectations, the school is unable to communicate that progress to the community in that manner. Given the lack a formal process for evaluating individual and student progress in terms of the student's achievement of the school's 21st century learning expectations, data is not available to effectively assess and report student and school progress in meeting the school's learning expectations. (self-study, panel presentation, Assessment Standard Subcommittee, school leadership)

Professional staff members inconsistently collect, disaggregate, and analyze data to identify and respond to inequity in student achievement. For example, student scheduling is informed by numerous student assessments. ACCUPLACER qualifies students for dual-enrollment courses; MCAS results inform math course selection; and ACCESS testing identifies and guides placement of English language learners (ELL). On a school-wide basis, all instructional leaders and their departments have examined

MCAS performance and student growth measures, focusing on improving the numbers of students scoring at advanced levels, increasing attendance rates, and in raising graduation rates. The lack of broadly applied common planning time (school-wide departmental planning time occurs once per month on early release days), however, impedes the undertaking of frequent and course-specific data analysis across the school. The school does examine Pass/Fail data across all core departments with teachers looking at their own P/F rates and comparing them with those of colleagues in the same course and department. Data summits, (now called common assessment meetings, formerly referred to as “quarterly data summits”), do occur, during which professional staff members collect and analyze data on common assessments each semester for every course at LHS and does 1 DDM (District Determined Measure) each semester for every course at LHS. This analysis enables the school to identify areas of strength, areas of growth, and next steps, which include pedagogical decisions, minor curricular/assessment modifications, and paths for remediation. The school cannot demonstrate consistently that the implemented next steps have been evaluated for effectiveness or that the cycle of data collection, analysis, reflection, and action has been consistently maintained. Frequently, individual teachers and small teams of teachers collect and informally analyze their own student work data and occasionally analyze other student work from within the same content area. This data is tracked on a traditional grade-book model, so it is difficult to examine progress and mastery of specific standards in order to identify and respond to an individual student’s performance. Consistent collection, disaggregation, and analysis of student data are essential processes to identify those students in the most need of support. (self-study, district administration, teachers, Assessment Standard Subcommittee, teacher interviews)

Prior to each unit of study, teachers do not communicate to students the school’s applicable 21st century learning expectations; however, they do identify course-specific expectations. Thirty-four of 69 observed classrooms have posted goals and objectives in their classrooms, but these are not based on the school-wide learning expectations. Curriculum maps and course syllabi provide students with essential questions and enduring understandings, and while all teachers have these documents, the communication of these expectations to students is inconsistent. The vast majority of teachers, however, do identify the course-specific expectations in all types of assignments using classroom and electronic postings, oral assignments, and in the outlines of major projects. Teachers use a variety of methods to post course-specific expectations, including EdLine, Google Docs/Classroom, Aspen/X2, and assignment sheets. When teachers provide students with clear expectation prior to each unit of study, students are better able to connect daily learning objectives to enduring understandings and essential questions of the unit of study. (self-study, student shadowing, Assessment Standard Subcommittee, lesson plans, parents, students, Endicott survey)

Prior to summative assessments, most teachers provide students with corresponding rubrics. While the school has not developed any school-wide analytic rubrics in order to identify for students the relevant expectation(s), teachers do provide students with assessment-specific expectation sheets and/or rubrics. For example, the science and English departments utilize common rubrics to target various skilled learned within their curricula. According to the Endicott survey, 80 percent of students agrees that they understand in advance what work they need to accomplish in order to meet teachers’ expectations. These expectations and rubrics, however, vary in their formatting and nomenclature, and do not always

provide students with examples of learning outcomes or exemplars to guide students in the successful demonstration of learning. When the school creates and systematically adopts the use of school-wide rubrics, students will have a consistent set of learning expectations based on school-wide goals, enabling teachers to identify gaps in achievement. (self-study, artifacts, student shadowing, Endicott survey, teacher interviews)

Teachers inconsistently employ a range of assessment strategies, including formative and summative assessments. Many teachers frequently and consistently employ traditional summative assessments, including multiple choice or short response exams, formal writing assignments, and problem sets. Many teachers, however, inconsistently use formative assessments in class and prior to summative assessments other than teacher-directed questioning and entrance/exit tickets. Because teachers' pedagogical beliefs about assessments differ, formative assessments do not often scaffold to summative assessments, and higher order thinking skills are not widely present in either form of assessment. Additionally, teachers provide inconsistent opportunity for student choice in assessment type. Summative assessments at times allow for alternative measures of student progress and mastery, such as portfolios, options for multimedia projects like digital storybooks, class presentations, and varying prompts in lieu of the original summative assessment. Implementing a range of formative and summative assessments and assessment strategies allows for the variation in student learning styles, while also monitoring progress and mastery of learning expectations. (self-study, student work, Assessment Standard Subcommittee, teacher interviews, student shadowing, classroom observations, students, teachers)

The school does not provide the majority of teachers the time to collaborate regularly on the creation, analysis, and revision of formative and summative assessments, including common assessments. Although only some teachers are scheduled common planning time, many other teachers willingly use their free periods or lunches to collaborate. Any additional collaborative time for teachers is only available during the school day and awarded by department heads, subject to logistical issues, to purposefully create opportunities for collaborative time based on the needs of given course teams. Given the lack of dedicated time, most discussion of assessments among teachers is conducted sporadically and informally. Regular collaboration on the creation, analysis, and revision of assessment practices will ensure that all students across teachers, content areas, and grades are more effectively meeting learning expectations. (self-study, department heads, Assessment Standard Subcommittee, teachers, students, Endicott survey, teacher interviews)

Most teachers assess schoolwork in a reasonable amount of time and many teachers provide specific, corrective feedback. Major assessments are typically returned in a timely manner. Many teachers provide useful feedback, comments, and suggestions to help students improve their work. Some teachers, however, continue to use a plus-minus grading system for assessments with little or no feedback or simply grade for participation and not accuracy. Revision of work is also an area in need of stronger focus. In most cases, students have no opportunity to revise work on formative and summative assessments. Timely feedback and opportunities for revision are essential for student growth and skill development. (self-study, teachers, classroom observations, teacher interviews, students, Endicott survey, student work)

Teachers do not regularly use formative assessment to inform and adapt their instruction for the purpose of improving student learning. Teachers have a variety of ideas about what constitutes formative assessment and what grades mean. Understanding of formative assessment ranges from behavioral expectations, participation and attendance, to summative indications of knowledge acquisition. Data summits have begun to create common nomenclature and a consistent vocabulary around grading and assessment, but that work is neither frequent nor formally focused.

Currently, Lowell High School uses standardized test scores such as MCAS, district determined measures (DDM), common assessments, the pass/fail rate, and other summative assessments to drive changes to the curriculum. Data from summative assessments influence building-level and district-level decisions. While this work is in its infancy, a disconnection between standardized assessment data and classroom grades has demonstrated a need for horizontal consistency across departments and a closer focus on the school's 21st century expectations. When the school implements a formal process for defining effective formative assessment used across the content areas, then teachers can efficiently alter their instructional practices prior to the end of a learning unit and address student misunderstandings and misconceptions immediately. (self-study, departmental administrators, testing data, central office personnel, teacher interviews, school leadership, Assessment Standard Subcommittee)

Teachers and administrators, individually and collaboratively, regularly examine a range of evidence of student learning for the purpose of revising curriculum and improving instructional practice. Many teachers individually examine student work, standardized testing data, and common assessment results to adjust instruction and to inform their work in revising curriculum. In some cases, there is a formal process for teachers and administrators to examine student work. For example, teachers in the Freshman Academy use dedicated department meeting time to examine student assessments and make adjustments to curriculum and instruction. Department meetings held during early release days provide some opportunity for teachers and administrators to examine data. Data summits, held during the September and October early release days as a district mandate, provide opportunities for teachers in all departments to analyze student performance on DDMs. Department chairs regularly examine a variety of student data, including student work, results of common assessments, and standardized testing data, which inform their work in developing curriculum and supporting instructional practice. Some teachers collaborate with other teachers informally during prep time, lunchtime, and before or after school. The guidance department meets with personnel from the Lowell middle schools to review individual student data, MCAS scores, and grades for students entering ninth grade. The school has developed partnerships with receiving schools such as Middlesex Community College and the University of Massachusetts at Lowell. The school's dual-enrollment program with Middlesex Community College (MCC) and the University of Massachusetts at Lowell (UMass Lowell) provides the school with the opportunity to define college readiness. For example, Middlesex Community College provides feedback on the readiness of Lowell High School graduates to complete college work. This opportunity does not currently inform curriculum or instruction at Lowell High School. The English department and the university partners, however, have been focusing on curriculum that better prepares students for college. This outreach also includes inter-visitation between university professors and LHS English teachers. Currently, the school does not use any student or alumni survey data to revise curriculum or improve

instructional practice; however, the school did convene an alumni/ae panel last August. When the professional staff regularly reviews a variety of student data, the school is able to make adjustments in curriculum and instructional practices to meet the needs of its students. (self-study, teacher interviews, panel presentation, teachers, department heads, Assessment Standard Subcommittee)

Grading and reporting practices are not regularly reviewed or revised by design to ensure alignment with the school's core values and beliefs about learning. While Lowell High School regularly reports student progress using an established formal process, including student progress reports, report cards, MCAS results, and the Aspen parent and student portals, the evidence does not make a strong connection to the school's core values or beliefs about learning. The professional staff attempts to balance its use of formative and common summative assessments. The evidence most specifically supports the formal, school-wide use of common quarterly assessments across many departments. Teachers consider homework, quizzes, laboratory reports, short writing assignments, exits slips, reading note checks, and question and answer discussions as some of the formative assessments used. Because school-wide rubrics do not exist, the professional staff is unable to review any data from teachers' use of school-wide analytic rubrics for determining individual student progress in achieving the school's learning expectations. Many teachers, however, do use individual assignment rubrics and those rubrics at times are shared amongst teachers who may teach the same course, but this is an informal practice. The school has no formal system allowing professional staff to ensure that grading practices are consistent within all subject areas and by all teachers. Data summits have been a practice that is helping to shape teacher goals; however, inconsistencies in grading practices from one teacher to another are evident which is why the school has established a grading policy committee to create and implement a more uniform school-wide grading policy. The professional staff is limited in its focus on standards-based grading practices that both measure student proficiency and promote mixed-ability grouping. The implementation of a formal process to regularly review and revise grading and reporting practices in order to align them with the school's core values will allow assessments to drive the future values of the school and to ensure the values are present within the instructional practices being used in the classroom. (self-study, teacher interviews, student work, parents, panel presentation, district personnel, school leadership)

Commendations:

1. The broad use by a majority of teachers of classroom and departmental rubrics to provide students with clear direction and connection to learning goals
2. The regular scheduling of data summits for analyzing student performance common assessments in all core areas to create goals to improve student achievement and to shape district and building level goals to better accommodate student needs
3. The focused analysis of specific assessment data sources such as ACCUPLACER, MCAS results, ACCESS testing, to inform math course selection and student placement for English language learners (ELL)
4. The dedication of time at Freshman Academy weekly department meetings and dedicated department meeting time during early release to analyze student work and student achievement data, to examine student assessments, and to make adjustments to curriculum and instruction

5. The practice by a majority of teachers of identifying the course-specific expectations in all types of assignments
6. The provision by most teachers prior to summative assessments of the corresponding rubrics
7. The establishment of partnerships with Middlesex Community College and UMass Lowell that provide data on the readiness of Lowell High School graduates to complete college work
8. The establishment of a grading policy committee to create and implement a uniform school-wide grading policy

Recommendations:

1. Develop a formal process, based on the use of school-wide rubrics, for assessing whole-school and individual student progress in achieving the school's 21st century expectations
2. Develop a process for communicating to students, families, and the school community at large the individual and whole-school progress in terms of the success of students in meeting the school's 21st century learning expectations
3. Maintain data summits for all content areas based on common assessments in order to provide the school with meaningful data to inform the development of curricula and instruction
4. Develop a process to ensure that all teachers identify prior to each unit of study the school's applicable 21st century learning expectation
5. Create a process by which teachers establish a common understanding of formative assessment in order to master and employ formative assessments among a wide range of assessment strategies and use their accumulated data to inform and adapt their instructional practices to improve student learning
6. Ensure that all teachers provide students with timely, substantive feedback and also provide opportunities for revision on both formative and summative assessments so as to demonstrate mastery of a given lesson
7. Provide dedicated time for all teachers to regularly examine student work and to have full access to other assessment data for the purposes of revising curriculum, instruction, and assessment
8. Further develop partnerships with post-secondary schools, using data gathered therefrom to inform the revision of curriculum and instruction through data analysis
9. Collect data from current students and alumni and use them to inform the revision of curriculum and instruction
10. Develop and implement a formal assessment plan that includes the regular use of both formative and summative assessments in all subject areas

SUPPORT STANDARDS

SCHOOL CULTURE AND LEADERSHIP

SCHOOL RESOURCES FOR LEARNING

COMMUNITY RESOURCES FOR LEARNING

5

School Culture and Leadership

The school culture is equitable and inclusive, and it embodies the school's foundational core values and beliefs about student learning. It is characterized by reflective, collaborative, and constructive dialogue about research-based practices that support high expectations for the learning of all students. The leadership of the school fosters a safe, positive culture by promoting learning, cultivating shared leadership, and engaging all members of the school community in efforts to improve teaching and learning.

1. The school community consciously and continuously builds a safe, positive, respectful, and supportive culture that fosters student responsibility for learning and results in shared ownership, pride, and high expectations for all.
2. The school is equitable, inclusive, and fosters heterogeneity where every student over the course of the high school experience is enrolled in a minimum of one heterogeneously grouped core course (English/language arts, social studies, math, science, or world languages).
3. There is a formal, ongoing program through which each student has an adult in the school, in addition to the school counselor, who knows the student well and assists the student in achieving the school's 21st century learning expectations.
4. In order to improve student learning through professional development, the principal and professional staff:
 - engage in professional discourse for reflection, inquiry, and analysis of teaching and learning
 - use resources outside of the school to maintain currency with best practices
 - dedicate formal time to implement professional development
 - apply the skills, practices, and ideas gained in order to improve curriculum, instruction, and assessment.
5. School leaders regularly use research-based evaluation and supervision processes that focus on improved student learning.
6. The organization of time supports research-based instruction, professional collaboration among teachers, and the learning needs of all students.
7. Student load and class size enable teachers to meet the learning needs of individual students.
8. The principal, working with other building leaders, provides instructional leadership that is rooted in the school's core values, beliefs, and learning expectations.
9. Teachers, students, and parents are involved in meaningful and defined roles in decision-making that promote responsibility and ownership.
10. Teachers exercise initiative and leadership essential to the improvement of the school and to increase students' engagement in learning.
11. The school board, superintendent, and principal are collaborative, reflective, and constructive in achieving the school's 21st century learning expectations.
12. The school board and superintendent provide the principal with sufficient decision-making authority to lead the school.

School Culture and Leadership

Conclusions

The school community consciously and continuously builds a safe, positive, respectful, and supportive culture that fosters student responsibility for learning and results in shared ownership, pride, and high expectations for all in most areas. The Lowell High School community consciously works to create a safe school culture. LHS emergency protocols are current and include detailed staff responsibilities during various potential safety issues including fire, lockdown, and evacuation drills. Each of the three buildings has a safety plan and drills are conducted regularly in accordance with state requirements. Security personnel, four school resource officers (SROs) and six security guards are present in the hallways and outside school entrances. The SROs responsibilities are demanding due to the need to cover the three main LHS buildings as well as the alternative school campus. The school uses closed circuit cameras for monitoring school activity but some of the 91 cameras are damaged. During the school day, students move freely in the corridors without overt supervision. Although, according the LHS handbook, the school scheduled students for all periods, ostensibly leaving little opportunity for students to be in the hallways during class time. All students are required to wear ID badges for easy identification. When students are found not to be wearing their badges, they are approached by an adult in the building and are subject to disciplinary consequences. The Endicott survey results indicate that 62 percent of students feels safe at school while at the same time, 33 percent of the student population feels bullying is a concern at LHS. Seventy-one percent of parents reports that the school provides a safe school culture. The LHS school community consciously works to create a positive school culture. The school publically recognizes student achievements in a variety of ways: on bulletin boards, with high five cards, on the school's website and social media outlets, with gift cards, lunches in the school restaurant, and paper bucks at the school store. School administrators and teachers regularly attend school plays, sporting events, and other school functions. The Endicott survey results indicate that 60 percent of students says they are proud of their school and school hallways are visibly free of trash and graffiti. LHS gear is worn proudly during the school day at school events and graduates continue to wear their LHS attire. Although the school has exercised initiative to display the core values and vision statement in hallways and classrooms, LHS has yet to embed them fully into the school culture. The LHS school community consciously works to create a respectful school culture in many ways. Recognizing that diversity is a strength and a challenge, the LHS school community promotes tolerance and awareness through school social activities and academic coursework. The International Language Club, with over 500 members, programs a series of monthly cultural awareness events and celebrations involving food, music, dance, and other traditions of the many ethnicities in the LHS community. Events include a Day of the Dead festival, Cambodian New Year, and Three Kings Day. In addition to the many celebrations, LHS offers an English elective for all students called Race, Ethnicity and the Written Word and a social studies elective called Seminar on American Diversity. The LHS school community consciously works to create a supportive school culture in many ways. House improvement plans detail action steps for high-risk students that include calls to parents, home visits, and a weekly review of high-risk student progress. Endicott survey results show that 64 percent of students believes teachers care about their learning, and 60 percent of students feels teachers respect them, but responses

also indicate that only 42 percent of students respects teachers and 42 percent of students respects students. Some classrooms have signage in multiple languages indicating room subjects to assist ELL learners in finding the right classroom. School organizations like the National Honor Society, JROTC, and other student organizations contribute tens of thousands of volunteer hours to their school and the wider community. A continuous emphasis on safety, positivity, respect, and support ensures positive core values upon which to base all teaching and learning. (self-study, emergency protocol plans, students, teachers, School Culture and Leadership Standard Subcommittee, facility tour, student shadowing, classroom observations, Endicott survey, PBIS data, parents, LHS course catalog)

The school is not equitable and inclusive because it does not provide equitable access to challenging experiences for all students in that it fails to ensure that courses throughout the curriculum are populated with students reflecting the diversity of the student body with the goal of fostering heterogeneity in support of the achievement by all students of the school's 21st century expectations. The course catalog indicates a total of 50 non-weighted classes; however, only thirteen of them are in core class areas: 7 in English: (3 for MCAS or SAT prep); 4 in mathematics (3 for ACCUPLACER, SAT, or MCAS); 1 in science (MCAS prep); and none in social studies or world languages. The rest of the non-weighted classes are electives or English language learner (ELL) classes. Broad data about the level of student enrollment numbers in non-weighted classes is lacking; however, a review of student (22) and teacher (17) schedules (including 9 core class and 8 SPED/ELL classes) indicates no evidence of student enrollment in a core class that was heterogeneously grouped. Additionally, no core class teacher taught any non-weighted classes. Special education students are included in classrooms across all academic levels; however, ELL students tend to be grouped within class/grade levels. Only 25 percent of parents believes their children can enroll in heterogeneous classes. LHS, however, was awarded the Gaston Caperton Award from the College Board which recognizes districts for creating opportunities for traditionally underrepresented students; expanding access to higher education by providing students with rigorous academic offerings and innovative college-preparation programs; and demonstrating significant and consistent growth in the number of traditionally underrepresented students and low-income students taking college-level courses, and applying to four or more colleges. LHS is not yet ready to fully tackle the complex issue of heterogeneous grouping. Emphasis on equity is paramount to ensure that all students are in positions to achieve at their highest levels. (self-study, classroom observations, student schedules, teacher schedules, school leadership team, School Culture and Leadership Standard Subcommittee, teachers, Endicott survey, classroom observations, student shadowing)

The school does have formal, ongoing programs in addition to the guidance counselors which connect students to adults in the school and have the potential to assist students in achieving the school's 21st century learning expectations. In the Freshman Academy, the school uses PBIS (Positive Behavior Intervention System) to connect students to adults and to reduce discipline problems. Freshman seminar is a requirement for all students to ease their transition to the high school and to pair them with an adult mentor in the school. All students at LHS have a daily advisory period which provides the opportunity for staff members and students to form connections over a three-year loop. Endicott survey results show that 62 percent of students says they feel connected with an adult in the school. Forty-four percent of the staff members, including administrators, serves as a mentor or advisor for students and/or student

activities. Sixty-eight percent of parents reports that their children have multiple adults at the school who function as a mentor/advisor. When individual students know that a trusted adult is present to assist them in achieving success, the likelihood of them achieving that success increases. (self-study, panel presentation, students, teachers, classroom observations, Endicott survey, student shadowing)

Collectively, the headmaster and professional staff members have not been able to fully and effectively use professional development to improve student learning. The headmaster and the teachers have had limited opportunities to avail themselves to engage in professional discourse for reflection, inquiry, and analysis of teaching and learning. Since there are limited resources available, the school cannot consistently engage outside agencies/consultants to expand the range of professional development options. Although the school has dedicated some formal time to implement professional development, its current schedule, in which teachers meet once a month, is not sufficient to advance their skills and practices or to improve curriculum, instruction, and assessment in support of student learning. Additionally, the time is often devoted to worthwhile school-wide and district initiatives, but not the extent needed is it responsive to departmental and focused curricular and instructional needs. As a result of these limited opportunities for professional development, the faculty has been unable to nurture a collaborative ethos of reflection and inquiry. Teachers do not have the time, both within and across departments, to routinely and effectively engage in conversations about learning expectations, consistent grading standards, quality of student work, instructional practices, curriculum revision, current research, and best practices. Providing sufficient time for professional development will allow teachers to sharpen and advance their skills, practices, curriculum, instruction, and assessment in support of student learning. (self-study, panel presentation, teacher interviews, administrative leadership team, School Culture and Leadership Standard Subcommittee, Endicott survey, headmaster)

School leaders regularly use two forms of research-based evaluation and supervision processes that focus on improved student learning. LHS is currently piloting the Massachusetts Department of Elementary and Secondary Education's recommended model evaluation process for teacher evaluation. The process focuses on using data to document whether or not teachers are meeting SMART goals for student learning and achieving overall expectations for effective teaching. The LHS department heads are responsible for implementing the Massachusetts teacher evaluations. Additionally, the director of curriculum and instruction initiated Instructional Rounds, based on the text *Instructional Rounds in Education*. The Instructional Rounds are carried out by teams of lead teachers and administrators who make short 10-15 minute observations of a variety of classes and then report back to the leadership team. The Instructional Rounds data is not used for evaluation purposes, and direct feedback is not given to the teachers observed. Instead, the Instructional Rounds data is used to improve student learning at scale, and to anonymously address trends and patterns observed with the whole staff. The state evaluation tool has already provided the department heads with the opening to have focused conversations with teachers, to give constructive feedback, and to refer teachers to observe other teachers. For example, a teacher who is struggling with or is new to leading a Socratic seminar would be referred to observe a teacher who has great experience and success with Socratic seminars. At the district level, administrators completed training in the use of the new state evaluation tool; those administrators in turn trained the headmaster and department heads. As a direct result of the new state evaluation tool, the department heads have

shifted their focus (and worked with teachers to help shift their focus) from delivery of instruction to student outcomes. This difficult shift was greatly facilitated by the format of and conversations around the new state evaluation tool. Because the state evaluation tool has been in place for only two years, administrators do not yet have a data set for more than that same time period. On the other hand, Instructional Rounds provide data that administrators share out in a debriefing, and the administrators have been keeping track of trends both within departments and across the entire faculty. As a result of these observations and conversations, the number of teachers who post their clear objectives visibly for each class has increased from approximately 33 percent to approximately 75 percent. Department heads have also implemented the “launch, explore, and summarize” model as a direct outcome of the Instructional Rounds. Many teachers would like to see the Instructional Rounds teams expanded to include additional classroom teachers, beyond simply lead teachers. Administrators have said they, too, hope to expand the teams as the program grows. In addition, LHS has dedicated instructional specialists who review testing data regularly and offer instructional support to teachers. Teachers recognize the value of data-driven instruction, but express a hope for timely and increased access to student data, as well as for additional training on how to analyze available data and apply it to practice. When school leaders regularly use research-based evaluation and supervision processes that focus on improved student learning and include the teachers as active participants and observers, the process, the quality of delivery of content, and student learning improves. (self-study, panel presentation, teacher interviews, department leaders, school leadership, teachers)

The organization of time does not comprehensively support research-based instruction, professional collaboration among teachers, and the learning needs of all students. The master schedule, although reviewed annually to ensure that all students are able to be enrolled in courses that support the school’s core values and beliefs about learning, does not allow for formal time on a regular basis for teachers to collaborate which is not conducive to supporting implementation of effective instructional practices (e.g., collaborative learning, inquiry-based instruction). More basically, many teachers do not have time to formally collaborate across content areas, and few teachers can collaborate regularly with teachers within their content areas. The school leadership estimates that up to 50% do have some formal opportunity to collaborate (all Freshmen Academy teachers, those provided collaborative time by department heads, and other groups such as the PLN groups for geometry, algebra, and pre-calculus teachers). During past reviews of the master schedule, the school has considered and explored variations in said schedule (e.g., flipped schedule). The school has already divided into houses as an organizational strategy, in order to meet the needs of its students and teachers; however, the school has been unable to adequately meet identified faculty needs and desires. A master schedule that collectively supports research-based instruction, professional collaboration among teachers, and the learning needs of all students, advances the interests of all stakeholders. (self-study, panel presentation, teacher interviews, School Culture and Leadership Standard Subcommittee, Endicott survey, headmaster, guidance counselors, master schedule)

Current student load and average class sizes enable teachers to meet the learning needs of individual students. The average class size for core courses is fewer than 30 students per class and between 20-25

students per class for non-core courses. The ratios have been maintained despite financing/budgetary issues. LHS currently offers over 1,000 courses. Given the large number of courses offered, there are only eight with 30-plus students enrolled. Additionally, the Endicott survey supports the reasonability of class sizes. Seventy-seven percent of students agrees that class sizes are reasonable and meet their learning needs; 64 percent of parents agrees that the current class sizes are reasonable and meet their children's needs. Only 11 percent disagrees. The survey results from faculty were mixed: 43 percent of LHS staff agrees and 42 percent disagrees. Maintaining workable class sizes enables teachers to effectively meet the learning needs of individual students. (self-study, master schedule, Endicott survey, guidance counselors)

The headmaster, working with other building leaders, consistently provides instructional leadership that is rooted in the school's core values, beliefs, and learning expectations to the degree that they currently understand them. It is not entirely clear that teachers and students truly understand how in practical application the school's core values, beliefs, and learning expectations should be driving all endeavors in the school. The Endicott survey results mirror the fact that the headmaster has made championing students as his central focus, while delegating faculty leadership and support to the director of curriculum and instruction. Sixty-seven percent of the students agrees and only 10.1 percent disagrees that the headmaster is clear about what he wants the school to accomplish for all of the students, while only 55.3 percent of the faculty agrees and 22.3 percent disagrees that the headmaster and other school-based administrators provide instructional leadership that is consistent with the school's core values, beliefs, and learning expectations. The headmaster very publicly models the core values of the school by the breadth of his direct interactions with and positive support of the students and the many programs he has established to benefit them. The headmaster usually starts his day standing outside the school in the morning greeting students; he is seen regularly walking through the halls of the school interacting with students; and he can be seen at virtually every school event, talking with students, encouraging them, praising them, and shaking their hands. The headmaster visits classes regularly, sits down in the cafeteria to dine and converse with students, and implemented the policy that mandates that most administrators assume responsibility for an advisory group in order to stay in touch with the students. The headmaster ensures that the teachers are focused on the school's beliefs about learning and instructional practices by providing them with a clearly delineated organizational chart, which has been newly revised for greater clarity and efficiency. The director of curriculum and instruction has immediate responsibility for providing instructional leadership in keeping with the school's core values and beliefs. Under the leadership of the current director of curriculum and instruction, the school has launched Instructional Rounds in an effort to improve student learning and mastery of the school's 21st century expectations. Additionally, the school has started an LHS Educator Workshop Series that allows current school leaders to share their knowledge and experience on various best practices in classroom management, differentiated instruction, working collaboratively, and using technology, all based around the main focus of strategies to improve instruction in secondary classroom. The school has also adopted the Positive Behavior Intervention and Support (PBIS) program for the Freshman Academy, which ties in directly with the school's core values as encapsulated in the school's RIDER acronym: Responsibility, Integrity, Determination, Engagement and Respect. Maintaining a clear focus on instructional practice to advance the level of achievement of the school's learning expectations provides the best circumstances for

maximum achievement by students. (self-study, teachers, school board, central office personnel, school leadership, Endicott survey, teacher interviews)

When it comes to making decisions, the headmaster consults with a variety of groups of administrators for input and discussion; however, teachers, students, and parents are not as involved in formal, meaningful, and defined roles in decision-making that promote responsibility and ownership. The headmaster uses information to inform his decision-making process, but not necessarily as the final word on what the decision will be. An example that the headmaster's decisions support the learning of every student and are generally consistent and fair is that in the past, certain groups would go on field trips during the school day on an ability-to-pay basis. The headmaster decided that if the field trip organizer could not make the trip accessible to all students, it could only happen after school, rather than during the school day. As a result of this decision, some teachers do not pursue field trips unless they are free, but others have gotten creative and sought out grant funding so that all students can partake in the trip; for example, a group going to see a production at the Mass Repertory Theatre was funded entirely by a grant. Faculty meeting time is only scheduled once a month on an early release day. The school has increased effort to utilize meeting time to promote discussion about teaching and learning through collaborative planning, curriculum design and alignment, and the examination of student work. The headmaster has made the students his primary focus: he believes strongly in helping students and aims to find ways to support students achieve success. Beyond his focus on students, the headmaster has made his primary focus establishing community partnerships, such as the dual enrollment programs with UMass Lowell and Middlesex Community College. He meets with housemasters regularly to strategize on how to increase attendance rates and decrease dropout rates, both of which have already improved in his tenure at LHS. The headmaster attends department meetings and department head meetings. There are LHS graduates who are currently in college only because the headmaster made calls to the get the students the financial and academic support they needed get into and stay in college. The headmaster has established many vehicles, which demonstrate to students that their learning is paramount. The headmaster has initiated both an alumni interview program to find out what LHS did well to prepare them for life beyond the school and in what areas LHS needs to improve in order to better prepare their students. He also has established various panels of successful alumni and local successful business people of color speak to speak inspirationally to the students. Historically, the Headmaster's Award was given for the highest GPA; the current headmaster changed the criteria: now the award is given on the basis of greatest amount of student perseverance. The headmaster has used his broad network of community connections for the greatest benefits of learning by building up an extremely large scholarship base. Specifically, last year over 220 graduating students received scholarships spread out over different areas of success. The headmaster has redecorated the school main entryway from an athletic trophy and sports photo display area with a banner that proclaims that LHS is a teaching and learning community. He also volunteered to use a DESE survey, which gives students the opportunity to voice direct feedback about teachers and the administration. When the headmaster, working with other building leaders, consistently provides instructional leadership that is rooted in the school's core values, beliefs, and learning expectations, the resulting broad range of learning opportunities presented to students greatly increases the likelihood of student success. (self-study, panel presentation, facility tour,

teacher interviews, students, school board, department leaders, school leadership, teachers, Endicott survey)

The headmaster religiously maintains office hours attends all “friends” meetings, Lyceum parents meetings, maintains an open door policy at open house nights, seeks teacher input from the Cultural Competence Task Force, and volunteers for the grading policy committee and the PBIS committee. What is less in evidence is any clearly defined structure for securing input on a broad basis from parents, students, and teachers and for providing a formal role in decision-making for those key stakeholders. Accessibility and openness to feedback from parents, students, and teachers is not modeled and does not allow stakeholder voices to be sufficiently heard. There are currently no formal mechanisms for staff, students, or parents to provide input into school initiatives. Endicott survey data indicates that only 28 percent of teachers feels their input is important, and there are indicators that staff feels their input is sought only after the decision has already been made. Rapid changes in leaders and leadership styles at the headmaster level coupled with the adoption of a new evaluation system have left the teachers feeling disengaged. Parent data reflects that 53 percent respondents feels they have input into decisions despite no formal method for doing so. Only 48 percent of students feels they have input into decision-making, and there is no formal method to provide input and/or effect change. Staff, student, and parent involvement in initiatives and decision-making is limited and inconsistent. Involving teachers, students and parents in meaningful and defined roles in decision-making promotes responsibility and ownership in the school community. (self-study, student, parents, Endicott survey, School Culture and Leadership Standard Subcommittee, teachers, department leaders)

Teachers exercise initiative and leadership essential to the improvement of the school and to increase students’ engagement in learning on a limited basis. Although teachers do not serve broadly on committees that review and revise curriculum and instructional practices, they do actively engage in leading or participating in other initiatives in the school, including after-school clubs and activities such as the LHS physics and engineering clubs. Lowell High School teachers serve as lead teachers and represent the high school on vertical teams. Additional teachers serve as members of the district STEM committee and as liaisons with the DESE. Successfully applying for grants, LHS teachers have designed focused STEM after-school projects and have facilitated curriculum development. Some teachers train and coach their colleagues. Significantly, teachers played an important role in creating the Welcome Wall near the main entrance that promotes the value of diversity. Although most teachers are limited to the once a month professional development offered by the school, they collaborate with some fellow colleagues when time permits on a limited basis. When teachers exercise initiative and leadership essential to the improvement of the school, students’ engagement in learning increases. (self-study, teacher interviews, School Culture and Leadership Standard Subcommittee, administrative leadership team, teachers)

The school committee, superintendent, and headmaster are collaborative, reflective, and constructive but not specifically focused toward achieving the school’s identified 21st century learning expectations. The current superintendent has been in the position since July 2015. The superintendent holds two meetings a month with two different groups of school principals; because there is only one high school, the LHS

headmaster attends both meetings. In these meetings with the superintendent, principals and the headmaster are able to bring both long- and short-term visions, goals, and issues to the table and receive feedback. The superintendent also meets on a weekly basis with the LHS headmaster. The school board uses a subcommittee model for dealing with the wide range of areas affecting the management of the city's school. Ten different subcommittees support handle topics as they arise. When the curriculum and instruction and the LHS subcommittees meet, the superintendent (or one of his designees) and the LHS headmaster also attend the meeting. Agenda items from past meetings, for instance, comprised the following: assessment, PARCC, MCAS, DDMs, Teachpoint, technology updates, Naviance, Race to the Top planning, instructional leadership, Virtual High School, Youthbuild, Career Academy, Latin Lyceum update, UTeach Partnership, and summer school. Although the above listed agenda items are relevant to the school's learning goals, they do not always represent an intentional focus on or a full encompassing of the goal of achieving the school's 21st century learning expectations. The lack of a directed focus on achieving the school's 21st century learning expectations can hinder at the district level the ability of students to achieve those learning expectations. (self-study, school board, central office personnel, school leadership)

The school board and superintendent definitely provide the headmaster with sufficient decision-making authority to lead the school. The duties and responsibilities of the headmaster, as documented in the job description, focus on administrative, instructional, and student leadership skills, as well as on requirements for community relationships. The job requirements, however, do not include specific reference to upholding the schools' core values and beliefs about learning. Nonetheless, the district policy and procedure manual and the superintendent and the school board do show the sufficiency of the headmaster's decision-making authority. At the request of the principals and the headmaster in their first meeting with the new superintendent, the superintendent granted them more autonomy in their budgets. The headmaster has received autonomy to create the professional development that is relevant to the high school. The district and headmaster/school leaders collaborate regularly. For example, the district leaders and principals/headmaster collaborated to develop and implement both a tutoring policy and an allergy policy. Another example is that there is an annual budget meeting day during which all principals and headmasters collaborate to establish the budget. The granting of sufficient autonomy to the headmaster ensures that decisions will be closer and in concert with those stakeholders who will be most affected by the outcome of the various decisions. (self-study, teachers, school board, central office personnel, superintendent, headmaster, school leadership)

Commendations:

1. The numerous strategies adopted to ensure a safe school culture, including the development of emergency protocols for lockdowns and evacuation drills, the use of closed circuit cameras to remotely supervise areas throughout the building, and the employment of security personnel and school resource officers (SROs)
2. The wide range of strategies employed to maintain a positive school culture such as celebrating student achievement on bulletin boards, with "high five" cards, on the school's website and

social media outlets, and the redesign of the of the main entryway with an emphasis on LHS as a teaching and learning community

3. The numerous school social and academic practices that support a respectful school culture such as The International Club; monthly cultural awareness events and celebrations such as the Day of the Dead Festival, Cambodian New Year, and Three Kings Day; and the establishment of an English elective course for all students called Race and Ethnicity
4. The highly effective adoption of the advisory period (for grades 10-12) and the freshman seminar (for grade 9) to encourage connections between students and an adult who knows them well who can assist them in achieving the school's 21st century expectations
5. The adoption and the ongoing expansion of the Positive Behavior Intervention System as a mode for developing and maintaining a positive, unified culture on a school-wide basis
6. The strong commitment to improve student learning as demonstrated by the willingness of the school to piloting the new Massachusetts DESE model for teacher supervision and evaluation
7. The director of curriculum and instruction's adoption of positive initiatives aimed at improving teaching and learning such as the introduction of the Instructional Rounds protocol for gathering data on instructional practice across the faculty
8. The commitment to maintain/reducing class sizes as evidenced by maintaining staffing levels even in the light of declining enrollment to enable teacher to better met individual student needs
9. The headmaster's consistently strong individualized support and broad-ranging advocacy for student success, including the establishment of community partnerships, the emphasis on increasing attendance rates and decreasing the dropout rate, the initiation of an alumni interview program, the development of a large scholarship base, and strongly emphasizing community partnerships, such as the dual enrollments with UMass Lowell and Middlesex Community College
10. The establishment of the LHS Educator Workshop Series allowing current school leaders to share their knowledge and experience on various best practices in classroom management, differentiated instruction, working collaboratively, and using technology with the main focus of improving instruction
11. The positive presence of collaborative and supportive structures and open lines of communication in place between and among the school committee, superintendent, and headmaster

Recommendations:

1. Assess the reasons behind the relatively large number (33 percent) of students who identified bullying as concern and pursue remedies to address this perception
2. Complete a needs assessment and develop a plan, with both short- and long-term components, to continue to increase the level of equitable access to challenging students for all students
3. Develop, with sufficient input from faculty members and LHS administrators, fund and implement a comprehensive professional development schedule that will avail teachers and allow sufficient time to meet for a broad range of professional development opportunities

4. Develop a plan to expand Instructional Rounds groups as a method of expanding the school's range of instructional strategies to include more classroom teachers, not simply lead teachers
5. Develop and implement a comprehensive master schedule that will, not only, meet the learning needs of the LHS students but also, create flexibility for teachers to collaborate with other teachers both horizontally and vertically to ensure smooth curricular transitions and the spread of best practices
6. With input from all appropriate stakeholders, develop a comprehensive plan to guide the use of faculty meeting time (more collaborative time and less administrative housekeeping), department meeting time (more opportunity for collaboration among teachers), and non-instructional teacher time (more designated common planning time) to focus more clearly on the achievement of the school's 21st century expectations
7. Identify and develop various structures and procedures which will provide parents, students, and teachers the opportunity for input into the school's decision-making process and will establish formal roles for them as key stakeholders in the advancement of the school and the achievement of its expectations



School Resources for Learning

Student learning and well-being are dependent upon adequate and appropriate support. The school is responsible for providing an effective range of coordinated programs and services. These resources enhance and improve student learning and well-being and support the school's core values and beliefs. Student support services enable each student to achieve the school's 21st century learning expectations.

1. The school has timely, coordinated, and directive intervention strategies for all students, including identified and at-risk students, that support each student's achievement of the school's 21st century learning expectations.
2. The school provides information to families, especially to those most in need, about available student support services.
3. Support services staff use technology to deliver an effective range of coordinated services for each student.
4. School counseling services have an adequate number of certified/licensed personnel and support staff who:
 - deliver a written, developmental program
 - meet regularly with students to provide personal, academic, career, and college counseling
 - engage in individual and group meetings with all students
 - deliver collaborative outreach and referral to community and area mental health agencies and social service providers
 - use ongoing, relevant assessment data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations.
5. The school's health services have an adequate number of certified/licensed personnel and support staff who:
 - provide preventative health services and direct intervention services
 - use an appropriate referral process
 - conduct ongoing student health assessments
 - use ongoing, relevant assessment data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations.
6. Library/media services are integrated into curriculum and instructional practices and have an adequate number of certified/licensed personnel and support staff who:
 - are actively engaged in the implementation of the school's curriculum
 - provide a wide range of materials, technologies, and other information services in support of the school's curriculum
 - ensure that the facility is available and staffed for students and teachers before, during, and after school
 - are responsive to students' interests and needs in order to support independent learning
 - conduct ongoing assessment using relevant data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations.

7. Support services for identified students, including special education, Section 504 of the ADA, and English language learners, have an adequate number of certified/licensed personnel and support staff who:
- collaborate with all teachers, counselors, targeted services, and other support staff in order to achieve the school's 21st century learning expectations
 - provide inclusive learning opportunities for all students
 - perform ongoing assessment using relevant data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations.

School Resources for Learning

Conclusions

The school has an effective system for implementing timely, coordinated, and directive intervention strategies for all students, including identified and at-risk students, which support each student's achievement of the school's 21st century learning expectations. Teachers and administrators are very responsive to parent communications about struggling students, and students feel teachers are approachable and available for extra help, as needed. Teachers refer students who are not meeting with success to a teacher assistance team (TAT) which reviews data, suggests classroom interventions, contacts parents, and alerts necessary student support services. The school formulates a plan, if necessary, with specific interventions, and the plan is reviewed four weeks later. Further actions also can include more intensive interventions, referrals to outside agencies, and referrals for special education testing. Appropriately licensed personnel schedule identified special education students into classes that honor the least restrictive environment and connect them with services, accommodations, and modifications that allow the students access to the curriculum in a manner that is appropriate for them. All students are expected to access and achieve the same expectations as their general education peers, to the extent that is appropriate for them. Systems are in place to address the needs of homeless students and students who are hospitalized for extended periods. Alternative placements are available for students who require them, including the LeBlanc Day School and Lowell High School Career Academy. LHS has pursued several grant-funded programs to provide comprehensive educational opportunities to various at-risk populations within the student body. These programs include a therapeutic day school (LeBlanc Day School), the student leadership and mentoring program for upperclassmen, compensatory services for students who have been suspended for long periods of time or who are not meeting with success in a traditional high school, and a before and after school tutoring program in the library. Because the school has a system, involving teachers, parents, students, and staff, to identify students in need of support, researching and communicating those needs to all stakeholders, and providing adequate resources for intervention, students have the opportunity to make academic progress in a fashion that is appropriate for them. These processes adequately meet the needs of the student population, with the exception of a growing population of students who present with the possibility of being both English language learners (ELL) and in need of special education involvement. Resources are scant for providing valid, reliable, and authentic assessments for special education consideration in students who are involved with ELL services. Standardized assessment materials and services (intelligence, achievement, behavioral/emotional, speech/language testing) in a student's native language are rarely, or not at all available. Maintaining access to intervention and special services for all students ensures that each student has equitable access to the services needed for achieving the mastery of the school's 21st century expectations. (self-study, teacher interviews, classroom observations, student shadowing, student work, parents, teachers, school leadership, school support staff)

The school provides a wealth of information to families about available student support services. This information in written form, however, is almost exclusively available in English, denying access to those most in need, a significant shortcoming particularly given that 45 percent of students reports a primary

home language other than English. The school provides a wide range of information about educational opportunities outside of LHS for struggling students (e.g., JobCorps, YouthBuild, UTEC), for health services (e.g., suicide hotlines, birth control and pregnancy support, drug and alcohol prevention, eating disorder support), for partner programs (e.g., Catie's Closet, SCORE, Upward Bound), and for after-school programs. The LHS Parent and Student Handbook is online on the school's website, as is helpful information about programs such as free and reduced price lunch. Attached forms, however, are posted only in English. The school communicates reminders to families via *Connect-Ed* on a consistent basis, although these calls are primarily in English. Families also communicate with other families at sporting events, helping spread the word about available services. The school informs students of opportunities by way of visits to their advisory by guidance counselors; students can then pass that information on to their families. Teachers are responsive to emails from families about student progress and regularly keep online records updated. LHS teachers, however, use a variety of different programs to report student progress (X2, EdLine, and Google Classroom), which can be confusing for families. The ELL department supports family access to these programs by holding an annual event for families of ELL students to learn how to use X2 for checking attendance and grades for their students. While the school's website can be translated automatically by Google, there is no availability of materials in other languages, with a few exceptions (parent handbooks from 2013-2014 in Spanish, Portuguese, and Khmer). A significant portion of ELL students are refugees and their families may not be literate in their native language or proficient in using the Internet. Part-time liaisons in the student support office speak Spanish, Burmese, French, and Khmer. Tutors on staff sometimes serve as translators. A consistent or reliable system for translation is lacking, nor are there always translators available for different specialized situations. The Endicott survey shows 76.7 percent of families is in agreement that student support service information is provided; however, all 1,150 families responding were surveyed in English only. Given the large diverse population at LHS, it is likely that families who are not proficient in English are in need of support services but have no reliable way to communicate with LHS staff. These families will not benefit from the wealth of options available for student support due to the lack of appropriate translation services undermining the ability of the school to meet all student needs. Access to critical information is the key to bringing services to bear on student needs. (self-study, parents, department leaders, School Resources Standard Subcommittee, Endicott survey, cafeteria manager)

Across all special service areas, support services staff use technology to oversee and enhance the delivery of an effective range of coordinated services for each student. Technology resources are readily available to staff members for the purpose of recording, developing, and maintaining grade reports, transcripts, special education and 504 plans, and student health records. The special education staff members use Easy IEP for plan development, and accommodations are uploaded to X2 for teacher access. Guidance counselors use Naviance, X2, Parchment, the DESE data warehouse, the College Board's website, EdLine, and Google Docs. Nurses manage student health documentation with Healthmaster software and upload medical alerts into X2. The library/media services program uses an automated student management system for checking books in and out and for writing resource reports. Additional examples of technologies used are a Brightlinks interactive screen for teaching research skills, the 30 computers in the main library class use area, and an additional lab adjacent to that room. Google Docs is the save mode of choice. The library media specialist uses virtual resources such as

databases and electronic books as well as audiobooks to supplement classroom materials for teaching and research. When the student support services staff members can and do leverage their efforts through the use of technology, they more effectively provide a wide range of coordinated and efficient services to a student body with diverse needs. (self-study, teacher interviews, classroom observations, teachers, student shadowing, student work, parents, school leadership, school support staff)

Student counseling services have an adequate number of certified/licensed personnel and support staff members who deliver a wide array of services but without formal coordination. Student counseling services at LHS are plentiful and high quality and are coordinated through the director of student support services through weekly meetings and delivered by house offices to meet the needs of students. Guidance counselors have begun to deliver a written, developmental program through the advisory period. They meet regularly with individual students to provide personal, academic, career, and college counseling. They engage in individual and group meetings with all students, although much more frequently with 12th grade than with younger grades. With the newly developed comprehensive guidance curriculum, students in grades 9-11 are receiving significantly more services and information than in years past. House social workers and housemasters partner with guidance counselors to deliver collaborative outreach and to make referrals to community and area mental health agencies and social service providers. House teams use ongoing, relevant assessment data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations, through the teacher assistance team (TAT) process. The house team is an effective structure for ensuring school counseling services are implemented well for all students. Students receive myriad supports through their house team. Each of the four houses serving grades 10-12 has a housemaster, two guidance counselors, a social worker, and two clerks, a team that works collaboratively to deliver services to the students under its care. The Freshman Academy has a similar structure with one extra guidance counselor. A crisis coordinator works across houses to investigate bullying, self-harm issues, and staff/student conflicts. Eight additional staff (four from TRIO/Upward Bound and four from Talent Search/Gear Up) support college and career access. Three guidance counselors staff a college and career center. A mediation coordinator trains students annually and maintains an active roster of trained peer mediators. The coordinator of student support services supervises these individuals. Guidance counselors attend advisories regularly to deliver announcements, share information, and connect with students. Each guidance counselor works with about 13-15 advisories from grades 10-12 (including 9th grade repeaters). Guidance counselors have created a month-by-month schedule with key goals for these meetings and have also designed lesson plans for advisory sessions.

Guidance counselors meet all students individually at least once a year for scheduling. They meet with seniors at the start of the school year, and then have numerous follow-up sessions as they complete post-secondary planning. Students are very comfortable going to their guidance counselors and find them to be supportive. Guidance counselors have an overall caseload of 260-300 students. Guidance and career counselors expose non-college bound students to a variety of post-secondary planning options, including community-based job training and placement opportunities, adult education services, resources for ELL students, and military career centers. House social workers work with the rest of the house team to make external referrals for students when necessary. A quarterly newsletter called "Connections" helps inform

staff and families of services provided by the social workers, and includes their contact information. Students can also be referred to one of LHS's alternative programs through the house team. Each house team conducts a quarterly review of student performance.

As noted above, services are coordinated through the house office and the director of student support services. All outreach and support is logged through Aspen, creating a record so to enable the school to track any interventions and supports that each student receives. Weekly house team meetings run by housemasters and weekly guidance meetings run by the director student support services allow for collaboration and open communication to ensure the coordination of services provided. The school provides a wide variety of available student support service programs; however, there is no one single source where all student support services are listed and can be easily accessed by all LHS community members. For example, the Boys and Girls Club serves about 80 LHS students, but not all student support service staff are familiar with what kinds of services the Club provides. Different students could receive different student support service options, depending on which staff member they work with. The newly created guidance curriculum was designed to improve the consistency in services provided throughout the school. Weekly guidance meetings are used to review the curriculum/calendar and to inform counselors of all student support services and options available. A student who needs a particular program may not be connected to it because of a lack of consistent access to knowledge about the range of available options. House teams use the teacher assistance team (TAT) process to support students who are struggling. Students can be identified by any stakeholder, but most frequently by classroom teachers; upon referral, the guidance counselor then oversees the creation and implementation of an intervention plan. The team follows students for a four-week cycle focused on improvement. The connection between the TAT process and 21st century learning expectations is unclear. The school lacks any codified process for conducting ongoing assessment using relevant data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations. Being able to effectively track student support service delivery enables the school to assess whether all students are given equitable access across all subgroups. (self-study, student shadowing, panel presentation, students, parents, department leaders, school support staff, School Resources Standard Subcommittee, Endicott survey)

The school's health services have an adequate number of certified/licensed personnel and support staff who provide preventative health services and direct intervention services; use an appropriate referral process; conduct ongoing student health assessments; and use ongoing, relevant assessment data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations. The health services at LHS are comprehensive, accessible, integrated, and responsive to the needs of the student body. LHS uses a traditional school nurse office model with an office in both the Freshman Academy and the 1980 building. The Freshman Academy nurse office houses one full-time nurse and one support staff. The nurse's office in the 1980 building houses three full-time nurses and one full-time Spanish/Portuguese translator. These offices provide traditional school nurse health management services that include records management, triage, attention to minor injuries, parent contact, and referral services. The nurse office maintains a supply of emergency medication including EpiPens and Narcan. Students must have their student ID and a pass

from a teacher to access services at the nurse offices. No walk-in services are available without a pass. The nurse refers students with further needs to the school-based health center (SBHC) or outside agencies on an as-needed basis. Translation services available to the school nurse office, however, are inadequate, and sometimes health professionals must ask another student to translate for them, which is potentially a violation of HIPPA.

School nurse office spaces are adequate for confidential service delivery and for meeting the needs of the student body. The school is seeking to conserve office space by, instead of keeping paper copies, increasing the usage of paperless systems, including entering medical records into the Healthmaster system. The school is equipped with several automatic defibrillators stationed throughout the building and the school has identified and trained health emergency response personnel in their use. Two full-time nurses staff the special education department and tend to the needs of students with disabilities, including tube feeding and instruction in hygiene and personal care.

LHS also houses a school-based health center (SBHC), a satellite of the Lowell Community Health Center, funded by a state grant, and thereby is able to bill out to private health insurance. SBHC services are available by referral or walk-in and include sick visits, physical and sports exams, mental health and nutrition counseling, preventive education and immunization clinics, reproductive health, and referrals to outside agencies. SBHC staff comprises a nurse family practitioner, licensed clinical social worker, and medical assistant. This center is a vital resource that improves and encourages a positive relationship between the students and the community. SBHC falls under the jurisdiction of Massachusetts Department of Public Health and the US Health resources and Services Administration. SBHC has access to a phone line which offers reliable, professional, and immediate translation services in any language; this service is only used by the SBHC. The SBHC also refers out to other agencies on an as-needed basis, and is often able to connect a student with health-related services within the Lowell Community Health Center. All health care services housed within LHS follow appropriate guidelines which govern confidentiality and privacy. Student health assessments are ongoing and comprehensive. School nurses review student health data annually for compliance with immunization requirements and can refer students to SBHC for immunization clinics. School nurses also perform hearing, vision, posture, and BMI screenings and follow-ups with related services as needed. SBHC staff review data and adjust practice in accordance with their own governing body's procedures. The school nurse office reviews dismissal data annually and look for patterns and areas of concern. Clinical practice is reviewed and altered in response to this data, including increased collaborative management of chronic health issues, parent permission, and doctor's orders for over-the-counter medication for individual students. Students at LHS have access to a responsive, well-staffed array of health service options, which allows them to quickly manage their health-related needs and remain focused on academics. The school lacks any codified process for conducting ongoing assessment using relevant data, including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations. When comprehensive services, including those provided by the SBHC, are responsive to student needs and are provided on-site promptly, the amount of time students must spend off-campus addressing their healthcare needs is minimized. (self-study, teacher interviews, classroom

observations, student shadowing, student work, parents, teachers, school leadership, school support staff)

Library/media services are partially integrated into curriculum and instructional practices; have an adequate number of certified/licensed personnel and support staff but who are not fully engaged in the implementation of the school's curriculum; provide a wide range of materials, technologies, and other information services in support of the school's curriculum; ensure that the facility is available and staffed for students and teachers before, during, and after school; are responsive to students' interests and needs in order to support independent learning; but do not conduct ongoing assessment using relevant data including feedback from the school community, to improve services and ensure each student achieves the school's 21st century learning expectations.

The Lowell High School library is sufficiently staffed with a licensed library media specialist supported by two assistants, a level of staffing adequate to support the school's curriculum and the curriculum frameworks. According to the Endicott survey, 51.1 percent of staff members states that library/media services has sufficient certified/licensed personnel and support staff; 28.2 percent disagrees. The library media services are integrated into the curriculum but not fully integrated in the implementation of the school's instructional practices. To that end, the library media specialist regularly meets with the director of curriculum and instruction, department heads, and teachers. She provides a two-day orientation program for all thirty-two 9th grade classes that targets 21st century skills: research, higher order thinking, and decision-making. The librarian focuses on the search processes for both print and non-print materials, the independent use of resources, the use of databases and Google Docs, the proper citation of sources, and the evaluation of websites. The library media specialist offers some professional development using 21st century resources such as databases and eBooks for teachers to use as part of their assignments; however, attendance has been limited at those professional development sessions. Teachers attend the technology professional development presented twice per week by the technology integration staff member who trains teachers how to use Google Docs and other technology functions with their classes when doing assignments.

The library/media specialist provides a wide range of 21st century materials, technologies, and other information services in support of the school's curriculum and student expectations. The center contains over 25,528 books but, based on copyright dates, some are outdated. Books are accessible through a computerized checkout system before, during, and after school. The library media center has periodicals, newspapers, classroom video services, and tapes for teacher use. According to the Endicott survey, 75.9 percent of students strongly agrees/agrees that the library provides them with a wide range of materials, technology, and other information services. The library media specialist, who orders the materials teachers need as well as books requested by students, has secured digital eBooks free from the state library to increase the number of titles and currency of the dated book collection and has acquired access to the state's new eBooks contract which offers over 100,000 electronic books for a few hundred dollars.

The district provides instructional technology support and funding for building-wide equipment; however, the library media specialist also purchases equipment from her own budget. She also has the

responsibility for booking reservations for the library computer labs around the building. Thirty computers are available in the main library room, with a computer lab adjacent to the library. Computers are available through the computer labs in the building, and the 21st century resources are made available through the library's website as a solution to outdated books in the library. Students who do not have computers at home come to the library to access information and work on assignments.

Library media services, coordinated by the librarian and supported by a Shannon Grant, ensure that the facility is available and staffed for students and teachers before, during, and after school to the best degree possible for the population of the school. Teachers report that they do not have the opportunity to use the library because the size limits its availability and use. Significantly, the Freshman Academy building has no library facility. The library is open after school for additional uses. For example, grant-funded tutoring services are available at that time and a library paraprofessional is available to help students who come in. According to the Endicott survey, 86.2 percent of students agrees that the school library is available to them before, during, and after-school hours. The library serves 600-1,000 students on a typical day and the library media specialist schedules teachers into the library via an online calendar. Some teachers and library staff report, however, that the facility and its resources are inadequate to meet the needs of the student population as well as the curricular and instructional programs. The physical size and configuration of the facility limit opportunities for staff members to schedule whole classroom use of the library media center. They do use the computer labs.

Library/media services are responsive to students' interests and needs in support of independent learning. Eighty percent of students agrees that the library staff is willing to help them find information they need or want. The library media specialist rearranged the library to create small seating areas, including soft comfortable seating for students to gather in groups. The library hosts 50-60 students or more a day during any given period. During advisory students have the opportunity to come to the library to complete work, work on projects together, or sit and read. The library media specialist orders book titles suggested by students. Students work on projects, use the Internet, or search for items of interest during and before and after school. The librarian orders multiple fiction copies per title to promote reading inside and outside of the center and has reorganized the library's print book layout to organize her fiction collection by genre in an attempt to increase reading. Due to limited budgets, materials to support bilingual studies are developing slowly. Recently however, the library media specialist added 202 English language learner books with some of the materials are at various reading levels according to the library's database statistics. Library/media services do not conduct ongoing assessment using relevant data, including feedback from the school's community, to improve services and ensure each student achieves the school's 21st century learning expectations; however the library media specialist does use several informal methods to gain feedback about the programs and services. An adequately staffed, sufficiently sized, appropriately equipped with an adequate collection and supportive technology, and responsive to the demands of the school's expectations for learning will enhance the ability of students to achieve the school's expectations for learning at the highest possible level. (self-study, library media specialist, library observations, panel presentation, facility tour, teacher interviews, department leaders, student shadowing, Endicott survey)

Support services for identified students, including special education students, students receiving services Section 504 of the ADA, and English language learners, have an adequate number of certified/licensed personnel and support staff who provide an adequate range of service for LHS, with the specific exception of the life skills program. Staff members generally collaborate with all teachers, counselors, targeted services, and other support staff in order to achieve the school's 21st century learning expectations, formally when possible, and informally when schedules do not align. Staff members regularly perform ongoing assessments using relevant data, including feedback from the school community, to improve services. Staff members, however, do not specifically measure student achievement in terms of the mastery of the school's 21st century learning expectations. LHS special education staff comprises a department chair, over 20 certified special education teachers, several paraprofessionals, in-house OT, PT, speech/language pathology professionals, school psychologists, and an adaptive PE teacher. The ELL staff includes a department chair, 17 certified ELL teachers, several ELL tutors, as well as a school-wide instructional specialist and an integrated technology specialist who also support teachers. Some co-teachers are intentionally scheduled with common planning time. Additionally, the school has created two teacher positions that are responsible for all the achievement testing for the special education process. This allows other special education staff members to spend their working hours delivering instruction and addressing student needs consistently and without interruption. Special education teachers without common planning time with general education teachers collaborate via email, telephone, or on an as-needed basis, but the school does not employ a consistent model for collaboration. LHS provides several different levels of inclusion opportunities for students with special needs: inclusion with consultation, inclusion with co-teaching, pull-out services for study skills, instructional support, reading, targeted math interventions, and social dynamics instruction. The special education department also provides instruction in core subjects by way of a special education teacher in a small size class. The school has established substantially separate classrooms for students with autism, severe or multiple disabilities, and behavioral/emotional disorders. These substantially separate classrooms have one or two certified teachers and paraprofessionals. The level of staffing at these levels is not adequate. Specifically the school lacks adequate, competent, and well-trained 1:1 staffing for students with severe disabilities during transition times, emergencies, and when covering for staff breaks and lunches. Considerable concern exists regarding the quality of materials available in the sensory room, and regarding the hygienic nature of cleaning for medical feeding tubing in the small sink designated for general classroom use in the intensive life skills classroom. Job coaching is part of the life skills transitional services, but there is no existing job coach position at LHS. Transition services are critical for students between the ages of 18-22, and without a job coach there is a significant gap in skills and necessary time spent training students to be successful employees. Classroom teachers have attempted to provide these essential services to their students but are not able to do so because of other classroom responsibilities. The school has little to no adaptive technology assessment for students with special needs. Adaptive technology services are currently provided through ancillary services — occupational, physical and speech/language therapists, and only to those students with the most severe needs. No adaptive technology assessments or services are provided for inclusion students, or students with a 504 plan. No students were observed using technology, and staff were unaware of the potential for students to use adaptive technology in a general education setting. Students who require services under Section 504 bring plan documentation outlining accommodations and strategies to their house

office where house administrative personnel then create the required documents and arrange for parent signatures. The information is then distributed to staff as soon as it is signed.

Students receive ELL instruction in a sheltered setting, with English classes leveled by basic, intermediate, advanced, and transitioning courses. English classes may have students with a mix of grade levels. Content courses may have students with a mix of grade levels and English language development (ELD) levels. The ELL team has the flexibility to move students up or down levels depending on their progress in acquiring English. Some teachers are able to collaborate through common planning time, while others must rely on email, before-school meetings, or after-school meetings. ELL teachers have also created an emergent literacy lab to address the needs of students with limited or interrupted formal education (SLIFE). This flexibility allows the team to adequately instruct students who are below the basic proficiency level. Expanded mental health and counseling services are needed for students who exhibit post-traumatic stress, often affecting students who arrived as refugees, in order for students to achieve the school's 21st century learning expectations. ELL students are included in many LHS programs. While 9th grade ELL students do not attend courses in the Freshman Academy building, they are served by a Freshman Academy guidance counselor. ELL students in the 10th, 11th, and 12th grades are integrated into houses and the advisory program. The school includes ELL students in school-wide programs such as COMPASS, student activities, clubs, and sports. ELL teachers employ regular formative assessments in classes and assess students via the annual ACCESS test. Incoming ELL students are assessed with the W-APT with placements then verified by classroom teachers. The support for teachers of ELLs in general education classrooms is limited to a school-wide instructional support specialist. While most general education teachers are trained in Rethinking Equity and Teaching for English language learners (RETELL), this training is not sufficient to adequately meet the diverse needs of the higher level ELL students at LHS. Additional support, and widely available ACCESS data, especially reported by domain (reading, writing, listening, speaking) is needed. Overall, when LHS identified students are well supported in special education and ELL programs by a large number of well-trained staff, students make comparable academic progress to their general education peers. The provision of sufficient services to address a broad spectrum of student needs especially for supporting former refugee students further enhances the ability for students to make progress toward the maximum achievement of the school's 21st century learning expectations. (self-study, teacher interviews, classroom observations, student shadowing, student work, teachers, parents, School Resources Standard Subcommittee, school leadership, school support staff)

Commendations:

1. The successful pursuit of grant-funded programs to provide comprehensive educational opportunities to various at-risk populations within the student body, including a therapeutic day school (LeBlanc Day School), the student leadership and mentoring program for upperclassmen, compensatory services for students who have been suspended for long periods of time or who are not meeting with success in a traditional high school, and a before- and after-school tutoring program in the library
2. The wealth of strong options for student support, both in and out of school, for almost any need that may arise, including services for struggling students (e.g., JobCorps, YouthBuild, UTEC),

for health services (e.g., suicide hotlines, birth control and pregnancy support, drug and alcohol prevention, eating disorder support), for partner programs (e.g., Catie's Closet, SCORE, Upward Bound), and after-school programs

3. The effective use of a wide array of technology to support the delivery of services to all students
4. The design and highly effective functioning of equitably staffed house-based teams in both grades 10-12 and in the Freshman Academy to ensure that counseling and support services are available for all students
5. The provision of a comprehensive range of varied health service options within the school including preventive health services, health assessments, referrals to outside providers, and the added resource of the school-based health center (SBHC)
6. The high level of engagement of the library media specialist in the integration of library/media services in the school's curriculum by way of regular meetings with the curriculum and instruction supervisor, department heads, and teachers; the orientation to program provided to all grade nine students focused on 21st century skills such as research strategies, higher order thinking, and decision-making; and increasing the range of electronic resources such as eBooks and data bases
7. The library media specialist's redesign of the library through the creation of many small seating areas to make it more welcoming to students and to make it a center for learning for all disciplines
8. The Compass Program pilot program (21st century program grant funded) designed to transition approximately 40 students from 8th to 9th grade during the summer of 2015
9. The maintenance of effective systems for implementing timely, coordinated, and directive intervention strategies for all students, including the focused use of the teacher assistance team (TAT) to support struggling students by reviewing assessment data, suggesting classroom interventions, and bringing to bear necessary support services
10. The provision of training in Rethinking Equity and Teaching for English Language Learners (RETELL) to most general education teachers

Recommendations:

1. Continue to ensure full access to all families to available support services for identified students by providing consistently reliable translation services by translators who are appropriately trained for a given situation (i.e., registration, discipline, initial assessment, crisis, medical needs) in student/parent home languages for both printed materials and in-person meetings
2. Create a coordinated method across all curriculum areas by which students continue to build upon the library media specialist's pre-existing 9th grade 21st century training in independent research strategies, the use of information resources to enhance the achievement of the school's student expectations through higher order thinking, inductive, deductive reasoning, and independent work
3. Develop a codified process for fully engaging the library/media personnel in discussions about curriculum and instruction to ensure appropriate communication about library/media purchases that support teaching and learning

4. Undertake an inventory of available resources in the library media center focusing on the overall age of the collection, its level of integration with the school's 21st century learning expectations, and the suitability of range of resources for English language learners
5. Ensure that the physical size of the library media facility is capable of presenting a fully integrated library/information services program and that funding is sufficient to build and maintain a collection of library materials that fully support ELL students the achievement of the school's identified 21st century expectations for learning
6. Establish a resource for job coaching to help life skills students engage in meaningful employment in a real-world setting
7. Establish a system including special education testing in low-incidence languages to ensure the accurate assessments, distinguishing between student needs in ELL, special education, and/or mental health counseling
8. Ensure that all support service area (counseling, health, library/media services, support services for identified students) regularly conduct ongoing assessments using relevant data including feedback from the school community to improve student services and to ensure that each student achieves the school's s 21st century learning expectations



Community Resources for Learning

The achievement of the school's 21st century learning expectations requires active community, governing board, and parent advocacy. Through dependable and adequate funding, the community provides the personnel, resources, and facilities to support the delivery of curriculum, instruction, programs, and services.

1. The community and the district's governing body provide dependable funding for:
 - a wide range of school programs and services
 - sufficient professional and support staff
 - ongoing professional development and curriculum revision
 - a full range of technology support
 - sufficient equipment
 - sufficient instructional materials and supplies.
2. The school develops, plans, and funds programs:
 - to ensure the maintenance and repair of the building and school plant
 - to properly maintain, catalogue, and replace equipment
 - to keep the school clean on a daily basis.
3. The community funds and the school implements a long-range plan that addresses:
 - programs and services
 - enrollment changes and staffing needs
 - facility needs
 - technology
 - capital improvements.
4. Faculty and building administrators are actively involved in the development and implementation of the budget.
5. The school site and plant support the delivery of high quality school programs and services.
6. The school maintains documentation that the physical plant and facilities meet all applicable federal and state laws and are in compliance with local fire, health, and safety regulations.
7. All professional staff actively engage parents and families as partners in each student's education and reach out specifically to those families who have been less connected with the school.
8. The school develops productive parent, community, business, and higher education partnerships that support student learning.

Community Resources for Learning

Conclusions

The community and the district's governing body provide funding for a wide range of school programs and services, sufficient professional and support staff, some professional development and curriculum revision, technology support, equipment and instructional materials and supplies, but the funding is not dependable. Lowell High School has numerous and varied course offerings and programs for students. The school catalog describes dozens of different courses and electives in most of the ten departments. The school offers several Pathways in various disciplines (e.g., engineering, culinary, business). The school offers most classes at the honors and college level and also provides numerous AP and dual enrollment offerings as well as a range of targeted ELL and special education courses. Teachers may propose new classes, and classes will run if there is enough student interest. In addition to these academic classes, the school provides curricular enrichment through many student clubs and student support programs such as Trio/Upward Bound. The school maintained appropriate staffing levels for the 2014-2015 school; however, staff assignments are not always equitable, as the size of classes assigned to individual teachers can vary widely due to the constraints of the master schedule. A class size report from May 2015, shows average class sizes range from 17-23 students in most departments with smaller averages in special education and larger in some electives like band. It should be noted that as a strategy of assigning staffing to meet the greatest needs of students, remedial classes have a smaller average size than honors and AP. In 2014-2015 teachers carries a caseload of around 120 students. In the area of professional support personnel, along with the guidance counselors assigned to each house, the support staff includes three additional counselors without specific caseloads who work to support various programs across the school. Some programs rely on grant funding which jeopardizes their long-term existence which becomes dependent on the vagaries of the funding process/sources. For instance, the summer school grant was eliminated recently thus making the recovery of credits needed for graduation more difficult. The tutoring program funded by the Shannon Grant is based on the calendar year and not the academic year which delays the disbursement of funds for several weeks in January. Other grants, such as the Commonwealth Corp initiative for job training and work opportunities and the Perkins grants for career, vocational, and technical education also expand the range of school programs. The school also uses grant funds, which can be uncertain in nature, to underwrite the cost of additional personnel who supplement the teaching and support staff (e.g., Youth Harbors and ELL tutors). The school has provided limited outside professional development in recent years due to lack of funding which has led to a shift in mindset about using existing staff to share their expertise and good practices. The commitment to somewhat of an in-house training model has benefits. Through this model, identified lead teachers in each department provide opportunities for faculty observation of innovative practices, and they also contribute to curriculum revision in some departments. The district supports their additional work through stipends.

Technology personnel complete needed repairs through a ticket request process but repairs are not consistently completed in a timely manner. Technology staffing includes a network manager and 1.5 technicians in the school. In addition, district-wide technicians complete special projects or high volume

ticket requests, a system that works sufficiently well. The tracking of the tickets shows the submission of over 8,500 in a two-year period. The school employs a technology integrations specialist (ITS) who works with the 32 Educating for Growth and Excellence (EdGE) classroom teachers. The ITS serves the needs of the entire school, 200+ teachers, not just EdGE classrooms, for instance helping to roll out and train the staff on the use of new Macbook airs (for every teacher) and to provide workshops and in-class training for all staff at LHS. The EdGE classrooms are equipped with a wide range of technology that supports instructional practice. Students have the instructional materials and supplies that they need, often including a textbook that they can leave at home with another copy in their classroom. Chapter 70 of the Massachusetts General laws requires the city of Lowell to meet net school spending requirements, but this rarely occurs. Once the district finalizes all of the staffing needs and non-personnel numbers (for transportation, special education, equipment, and technology) in the spring, the school department determines what the gap is between spending and revenue and determines how much funding is needed from the city. In 2013, the city fell short of the requirement set by the state by \$3.8 million. The 2014-15 school year was the first time that the city met the school spending requirement. The failure to provide consistent funding aligned with the Massachusetts guidelines for net school spending will undermine the ability of the district to provide personnel, resources, and facilities to support the delivery of curriculum, instruction, programs, and services. (self-study, online course selection guide, school leadership, parents, student shadowing, Community Resources Standard Subcommittee, panel presentation, central office personnel)

The school does not adequately develop, plan, and fund programs to ensure the maintenance and repair of the building and school plant or to properly maintain, catalogue, and replace equipment, but does ensure that the school is clean on a daily basis. The city of Lowell rather than the school department handles much of the maintenance and repair at Lowell High School. According to the Endicott survey, only 19 percent of teachers reports that needed repairs are completed in a timely manner. Building custodians have responsibility for some maintenance and repair in the building. For example, they annually refinish floors and clean classrooms and furniture. The school has an in-house HVAC technician who is the first to respond to relevant concerns. If he is unable to respond, the school department brings the issue to the attention of the appropriate city department. Repairs in other areas are also the responsibility of the city of Lowell rather than the school includes plumbing and electrical systems. The multiple layers that exist in the spending process can also interfere with effective and timely maintenance and repair. Maintenance issues contribute to safety concerns in all of the LHS buildings. Handrails in stairwells are not connected to walls, the HVAC system is inconsistent and creates temperature fluctuation, safety equipment (fire hoses) have damaged glass casings which can impair their function, sections of the roof leak and as a result, create puddles which have caused injury. At the same time, the city and school department have made significant investment in the high school buildings over the past three years, including replacement of some exterior doors, roofing, and floors and the repair or renovation of the special education suite, the cafeteria service area, the little theater, and the auditorium in the Freshman Academy. Additionally, the school renovated the Kane Courtyard, repaired/replaced water bubblers, upgraded lighting and controls in all buildings, and added signage both inside and outside the school building.

The school properly maintains accurate lists of equipment on site, but the ongoing maintenance and the replacement of equipment is not consistent. The district puts out to bid a preventative maintenance and repair contract every three years which requires two preventative maintenance visits per year. Needed repairs, however, for items like windows, doors, and lights are handled by a ticketing system through which school custodians submit requests to the city's land and building department. With these repairs dependent on the city staff and not school personnel, the availability of city workers can often delay the needed repairs. The school's custodial staff is responsible for the day-to-day cleaning of the school. The school uses a custodial duties checklist that night custodians are expected to complete daily. Three custodians are available during the school day and fourteen work at night (from 3:00 p.m. to 11 p.m.). Although only 42 percent of teachers reported that the school is clean and well-maintained on a daily basis, the facility tour and general movement of the visiting team around the building revealed few concerns around cleanliness and very little graffiti. Areas where daily maintenance is challenging are in snow removal and in cleaning the pool. The school lacks proper equipment for the removal of snow and ice. The development and full funding of plans for maintaining and repairing the school plant will positively impact teaching and learning. (self-study, Endicott survey, facility tour, student shadowing, school support staff, superintendent)

The community does not fully fund a long-range plan that addresses programs and services, enrollment changes and staffing needs, facility needs, technology, capital improvements, and sufficient instructional materials and supplies. The central office is open to new program proposals when possible, such as the Freshman Academy or the grant-funded Career Academy, but the school district does not have a clear process for evaluating the effectiveness of various programs or for prioritizing where to spend money. At the high school, while there is no formal oversight committee, a few years ago building administrators began to review current programs and took steps to make changes. For example, the career pathways programs (culinary arts, business) were found to be in need of reorganization. As a result the Perkins Grant was rewritten to better meet student needs. The headmaster plans to use the recommendations in the upcoming NEASC report to guide planning for moving forward. Enrollment increases and decreases have not led to an increase or decrease in staffing. High school enrollment has decreased over the past several years according to the New England School Development Council report, but the school administration has sought to maintain consistent staffing levels. Positively, this has resulted in reasonable average class sizes and caseloads in 2015 that allow teachers to more fully meet student needs. The school is in the process of implementing a long-term plan for technology through the year 2017. This has resulted, for example, in the addition of a dedicated technology specialist, but technology funding remains a concern. As a result, although efforts have been made to strengthen the technology at LHS, problems with networks, equity, and access still exist.

The school district submits a list of facility needs to the city and the individual requests are prioritized and then approved or denied by the city officials. This process does not lead to concerns about the building being addressed in a timely and efficient manner. The city and the school district have invested in several large-scale renovations, such as in the theater in the Freshman Academy, but many capital improvement needs remain unfunded. In the 2013-2014 school year, a comprehensive facilities assessment by OMR Architects determined that the building's needs, based on enrollment trends for the

next ten years and the fluctuations in enrollment, provide justification for a renovation or for the construction of a new high school. A request has been submitted to the Massachusetts School Building Authority (MSBA) and has been accepted and is being looked upon favorably. The city of Lowell and the Lowell School Department are unified in their support for this petition to the MSBA. The adoption and funding of a comprehensive, long-range plan for programs and services, facility needs, technology, and capital improvement will ensure the ability of Lowell High School students to achieve the school's expectations for learning. (self-study, panel presentation, central office personnel, school support staff, school board, OMR Architects Study)

Building administrators are involved in the development and implementation of the budget for the school, but faculty members are only indirectly and inconsistently involved in the process. In a facility with over 300 faculty and staff, the budgeting is not a collaborative process. The leadership team of 15 people (the headmaster; the director of curriculum, instruction, and assessment; the student support services coordinator; and the department heads) has input into the budget and represents the faculty from their departments in these decisions. The Massachusetts Chapter 70 state aid formula mainly determines the amount of funding available in the district each year. Once the school's funding level is finalized using a formula based on October 1 enrollment numbers, at the school level the headmaster and the director of curriculum determine the further allocation of funds (e.g., amounts for office supplies, textbooks, technology, library/media, and professional development). They can make changes between line items as the year progresses. Building administrators work with the department chairs to develop budgets for each department. Teachers do not have a clear understanding of how much money is available for course-related materials or how the department money is distributed. According to the Endicott survey, 82 percent of teachers disagrees with the statement, "I have input into the development of the school budget." In some cases, teachers request specific materials in the spring needed at the beginning of the year, while others may be encouraged to make requests at the end of the year if money should still be available. With regard to supplies, the accounts payable clerk at the high school sends a list of requested supplies to the city in July. Some of these supplies are ordered, some are changed to less expensive items, and some are not ordered at all. Throughout the school year, teachers can request basic supplies through their department chair. As the end of the year comes, however, teachers cannot predict if needed supplies (e.g., scantron sheets, white board markers) will be available. The dependence on grant funding for some programs also contributes to a sense of distance from the process for some teachers. The lack of real input into budget development leads to a sense of fruitlessness about the budget process and raises questions about equity. (self-study, teachers, Community Resources Standard Subcommittee, teacher interviews, school board)

The school site and plant support to a limited extent the delivery of high quality school programs and services. Dedicated spaces support a wide variety of programs. The school's large auditorium, a smaller theater in the main building, and a newly renovated auditorium in the Freshman Academy allow for concurrent performing arts classes and multiple after school activities and events. The school also has a student-run restaurant, a store, and a television studio all of which are connected to one of the Pathways. The field house complex has sufficient space for physical education classes and athletics, including a pool, weight room, and gym space. The Junior ROTC program has a cluster of classrooms available,

and other community partners, such as Youth Harbors and Trio, also have space within the school. The school has recently invested, through a grant, in 32 EdGE classrooms, which are state-of-the-art classrooms that allow teachers to share content in various modalities over multiple displays or share differentiated content on various displays using iPads or iPhones that connect to three large screen Apple TVs. The teachers who volunteered or were selected for participation in the five-year implementation of the program received training around how to adapt their curricula to take full advantage of the technology. The school is currently in the third year of the EdGE implementation.

At the same time, physical plant issues many of them related to the age or design of the buildings interfere with the school's ability to support programming and preserve a fully supportive learning environment. These issues include leaks both in the roof, the tunnel, and from sinks; temperature fluctuations where one room is considerably warm while another is considerably colder; and the presence of pests in the building. The leaks in the bridges have created a slip/fall hazard. Many rooms in all three building have windows in need of repair. The nurse's office in the 1980 building is small and not easily navigated by wheelchair-bound students. Additionally, the 1922 building in particular is not fully accessible to individuals with physical handicaps. The dining area in the main cafeteria is at or near capacity, so that during the more crowded lunch period, tables are set up in the foyer outside the student support office. The resulting need to run four lunch periods has significant impact on the flexibility of scheduling students, classes, and common planning time. The OMR Comprehensive Facilities Assessment identified concerns about the lack of capacity of the electrical system resulting in the inability to support upgrades in technology. Physical plant issues also interfere with the ability to fully implement the school's curricula. For example, the art department, with its location in the center rooms of the old building, does not have natural light or adequate ventilation in its classrooms. One frequently cited issue was the ability of the science labs in both the 1922 and the 1980 buildings to support modern science curriculum and pedagogy. Specifically, the labs in the 1922 building are outdated and in need of repairs to drainage systems and teachers in the 1980 building share access to labs only through a sign-up system. Due to the inadequacies of these lab spaces, teachers sometimes use computer-based simulations instead of actual labs. Even within a given department, the facility supports the curriculum at different levels of effectiveness and equity. Thus, while there is newly renovated space for older life skills students to engage in their curriculum, the parallel facilities for other life skills students do not allow for full service delivery. In terms of technology, while some classrooms are outfitted with cutting edge technological support, others are not, severely limiting the school's ability to provide equitable access to up to date technology for all students. The lack of strong facility features that support the delivery of the school's curriculum and the use of best instructional practice severely hampers students' ability to fully achieve the school's academic expectations. (self-study, facility tour, student support services, teachers, students, Community Resources Standard Subcommittee, student shadowing)

The city of Lowell and the school do not maintain comprehensive documentation that the physical plant and facilities meet all applicable federal and state laws and are in compliance with local fire, health, and safety regulations. The city of Lowell owns the school buildings, thus city departments maintain many of the documents related to compliance with federal and state laws. Within the school department, the

superintendent for finance and operations coordinates document maintenance with the headmaster. Occupancy permits for each of the three buildings (1922, 1980, and Freshman Academy) are verified by the city's building department and kept at the school. Specific occupancy permits, however, for given spaces (i.e., the Burgoyne Theater in the Freshman Academy and the two cafeterias) are not posted in the building. ASAP Fire and Prevention maintains records relating to fire and safety. Aramark food service confirms that there are monthly inspections and reports to DESE and twice-yearly audits by the health department. The school acknowledges concerns about accessibility for the physically challenged, especially in the 1922 building and the Freshman Academy. The 1922 building has no ground level access for wheelchairs which require the use of a lift to enter. The ramp for emergencies is not up to code. All of the buildings are equipped with elevators and elevator inspections are up to date and clearly displayed. The elevators are not all big enough to fit a gurney or a wheelchair and do not provide access to all parts of the facility. The comprehensive facilities assessment done by OMR Architects in March 2014 cited several areas of concern where stairs and handrails also are not up to code. A lack of handicap access throughout all three buildings limits students' access to an equitable educational experience. (self-study, facility tour, school board, support staff, teachers)

Most professional staff members actively reach out to engage parents and families as partners in each student's education and some reach out specifically to those families who have been less connected with the school. Teachers and administrators are required to actively engage in outreach activities, a topic which is included as part of the evaluation tool for administrators and teachers. The school assigns students to one of four houses which consist of a headmaster, two guidance counselors, and a social worker. The school provides parents an orientation to the house system both when their children are freshmen at the Freshman Academy and then again when they enter the tenth grade. The student remains in the same house and families with multiple students are also placed in the same house to provide consistency for the family. The Freshman Academy runs regular parent outreach events. Most teachers have an online presence, but not all. Most teachers post homework assignments on various online sites. Some teachers are also collecting work using various online platforms. The school uses *Connect-Ed* to inform parents of events that are occurring at the school, such as open house, Friends of Lowell High meetings, and college information nights. The school places some of these calls in the more prevalent students' native languages to encourage broader involvement. All teachers are using Aspen to record students' progress and some parents feel this is a very efficient way for them to track their children's progress. Some parents feel comfortable using email to contact teachers and they report getting very quick responses to their inquiries. Friends of Lowell High School is an established parent group that works in conjunction with administration to promote activities and open communication between parents and the school. They also reach out to all the boosters clubs at the beginning of the season to encourage new members to join. The school keeps its website up to date with daily announcements of activities. The headmaster posts a blog which highlights major events. The Latin Lyceum also hosts a parent group. Teachers in the ELL department communicate with parents as much as possible. Without data to show the effectiveness of the school's multiple attempts and strategies to engage parents, it is not possible to assess the current level of success of the various outreach initiatives and establish goals for improvement. The higher the level of parent involvement in the daily life of the

school, more likely is the higher the level of student success. (self-study, student shadow, teacher interview, parents, school leadership, school support services, school website)

The school develops productive parent, community, business, and higher education partnerships that support student learning. The school has a number of strong partnerships. The Friends of Lowell High School is a parent group that meets monthly with the headmaster, the athletic director, and the student activities director. Other administrators also cycle through the meetings depending on the agenda. This group was originally intended to support athletics at the high school but has since developed into one that focuses on a variety of issues, including curriculum, scheduling, safety, and college and career planning. They also raise money to support scholarships. The school fosters this group by scheduling Freshman Academy events to coincide with Friends of Lowell High School meetings working to funnel parents from one to the other. The school or individuals in the school have sought and maintained a huge number of community and business connections which engage students in learning beyond the classroom. These partnerships range from national organizations like Air Force Junior ROTC to local businesses like the Jeanne D'Arc Credit Union. The Junior ROTC program has about 400 student participants and is a four-year program devoted to developing character through a program of academic courses combined with service alongside community organizations such as the Merrimack Valley Food Bank and the Lowell Housing Authority. On a more local level, the school engages with Catie's Closet a community organization that does in-school distribution of donated clothing and other necessities directly to needy students. Lowell High School and the Jeanne D'Arc Credit Union maintain a close alliance. Along with the credit union branch that is in the school and staffed by students who are in the business, marketing, and finance pathway, Jeanne D'Arc runs an annual "credit fair," where students are given an identity (i.e., income, family) and participate in a simulation. All seniors are invited to attend; approximately 300 participated last year. The other Lowell High School Pathway programs have developed their own links to local organizations and businesses for both learning opportunities and internship placements. Both Middlesex Community College and UMASS Lowell have a very strong presence at Lowell High School. Approximately 200 students participate in dual enrollment courses at the high school at no cost to the student. Along with dual enrollment, the school maintains several articulation agreements through which students who take classes at LHS (e.g., in the business department or culinary arts program) do not need to repeat the classes at the community college. The school maintains an easy relationship between the high school and the nearby higher education institutions. For example, teachers can easily secure classroom speakers for a wide variety of topics or audience members or judges for student presentations. Strong partnerships between the school and parents, the community, businesses, and higher education support rich educational options and experiences for students which greatly expands real-world learning beyond the walls of the school. (self-study, facility tour, panel presentation, teachers, parents, school board, school support staff, Endicott survey, Community Resources Standard Subcommittee)

Commendations:

1. The community and the district's support for a wide range of courses and high-interest electives offered at different levels in most departments

2. The district's strong financial commitment to maintaining reasonable class sizes that allows teachers to meet individual student needs
3. The city of Lowell and the school district for meeting the Massachusetts net school spending requirements under Chapter 70 for 2014-2015 school year
4. The city of Lowell and the school department's strong commitment to investing in needed upgrades over the past three years such as the replacement of some exterior doors, roofing, the renovation of the special education suite, and the renovation of the auditorium in the Freshman Academy
5. The focused renovations of the school's various auditorium and performance spaces that support the delivery of expanded learning opportunities such as guest speakers and various student productions
6. The daily maintenance of a remarkably clean building that reflects a high degree of student respect for Lowell High School
7. The clear and consistent commitment of the community, city officials, and the school district to securing funding for the renovation/construction of a new Lowell High School as evidenced by the funding of the OMR Comprehensive Facilities Assessment and the ongoing pursuit of a grant from the Massachusetts School Building Authority to underwrite a portion of the associated costs
8. The development and nurturing of strong partnerships with Middlesex Community College and UMASS Lowell which expand curricular offerings and provide opportunities to earn community college and for dual enrollment credits
9. The numerous partnerships with organizations, institutions, and businesses in the surrounding community that give rich opportunities for students to learn and grow outside of the standard classroom

Recommendations:

1. Consistently provide a dependable funding stream for school programs and supplies
2. Provide sufficient funding for a range of professional development activities including, where needed, expertise from outside the school/district to support and enhance the achievement of the school's vision and goals
3. Undertake an audit of the process for timeliness of maintenance and repairs at Lowell High School and respond accordingly
4. Report to the Commission on the district's success in developing and actuating the long-term technology plan through 2017
5. Create an inclusive, equitable, and transparent method for the development and implementation of the school budget that instrumentally involves all stakeholders
6. Report to the Commission the school's and the city of Lowell's progress in securing authorization and funding from the Massachusetts School Building Authority for siting and renovating/building a new Lowell High School
7. Immediately repair any leaks in the bridges joining the individual school buildings
8. Schedule an audit by an appropriately certified entity that clearly and fully assesses all issues related to handicap accessibility and respond as needed
9. Ensure that all documentation that the physical plant and facilities meet all applicable federal and state laws and are in compliance with local fire, health, and safety regulations
10. Build on the authentic learning experiences that community organizations and higher education institutions offer by making explicit connections to the school's core values, beliefs, and learning expectations

11. Identify an effective method to track the level of parent involvement at various activities with the goal of establishing baseline data to be used to identify methods to increase that involvement

FOLLOW-UP RESPONSIBILITIES

This comprehensive evaluation report reflects the findings of the school's self-study and those of the visiting committee. It provides a blueprint for the faculty, administration, and other officials to use to improve the quality of programs and services for the students in Lowell High School. The faculty, school board, and superintendent should be apprised by the building administration yearly of progress made addressing visiting committee recommendations.

Since it is in the best interest of the students that the citizens of the district become aware of the strengths and limitations of the school and suggested recommendations for improvement, the Committee requires that the evaluation report be made public in accordance with the Committee's Policy on Distribution, Use and Scope of the Visiting Committee Report.

A school's initial/continued accreditation is based on satisfactory progress implementing valid recommendations of the visiting committee and others identified by the Committee as it monitors the school's progress and changes which occur at the school throughout the decennial cycle. To monitor the school's progress in the Follow-Up Program the Committee requires that the headmaster of Lowell High School submit routine Two- and Five-Year Progress Reports documenting the current status of all evaluation report recommendations, with particular detail provided for any recommendation which may have been rejected or those items on which no action has been taken. In addition, responses must be detailed on all recommendations highlighted by the Committee in its notification letters to the school. School officials are expected to have completed or be in the final stages of completion of all valid visiting committee recommendations by the time the Five-Year Progress Report is submitted. The Committee may request additional Special Progress Reports if one or more of the Standards are not being met in a satisfactory manner or if additional information is needed on matters relating to evaluation report recommendations or substantive changes in the school.

To ensure that it has current information about the school, the Committee has an established Policy on Substantive Change requiring that principals of member schools report to the Committee within sixty days (60) of occurrence any substantive change which negatively impacts on the school's adherence to the Committee's Standards for Accreditation. The report of substantive change must describe the change itself and detail any impact which the change has had on the school's ability to meet the Standards for Accreditation. The Committee's Substantive Change Policy is included in the Appendix on page 79. All other substantive changes should be included in the Two- and Five-Year Progress Reports and/or the Annual Report which is required of each member school to ensure that the Committee office has current statistical data on the school.

The Committee urges school officials to establish a formal follow-up program at once to review and implement all findings of the self-study and valid recommendations identified in the evaluation report. An outline of the Follow-Up Program is available in the Committee's *Accreditation Handbook* which was given to the school at the onset of the self-study. Additional direction regarding suggested procedures and reporting requirements is provided at Follow-Up Seminars offered by Committee staff following the on-site visit.

**Lowell High School
NEASC Accreditation Visit
October 18-21, 2015**

Visiting Committee

Chair			
Charles McCarthy	New England Association of Schools and Colleges	Bedford	MA
Assistant Chairs			
Michael Fiato	Lawrence High School	Lawrence	MA
Daniel Richards	Belmont High School	Belmont	MA
Visiting Committee Members			
Lisa Begley	Haverhill High School	Haverhill	MA
Edie Boynton	Quincy High School	Quincy	MA
Kim Carrozza	Nashua High School South	Nashua	NH
Jessica Cleveland	Agawam High School	Agawam	MA
Annette Cochran	Doherty Memorial High School	Worcester	MA
Deidre Collins	Chelsea High School	Chelsea	MA
Nadine Crowe	Spencer-East Brookfield Regional School District	Spencer	MA
Maria Giacchino	Cambridge Rindge and Latin School	Cambridge	MA
Rich Gorham	Lawrence High School	Lawrence	MA
Brian Gould	Classical High School	Providence	RI
Susan McKenzie	Danbury High School	Danbury	CT
Elaine Mokrzycki	Agawam High School	Agawam	MA
Karen Monahan	Weymouth High School	Weymouth	MA
Christopher Motika	Manchester High School West	Manchester	NH
Stacey Mowchan,	New Britain High School	New Britain	CT
Sung Joon Pai	Charlestown High School	Charlestown	MA
Joanne Pare	Exeter High School	Exeter	NH
Mario Pires	New Bedford High School	New Bedford	MA
Mark Quinones	Somerville High School	Somerville	MA
Sydney Vloria	East Boston High School	East Boston	MA

NEW ENGLAND ASSOCIATION OF SCHOOLS & COLLEGES

Committee on Public Secondary Schools

SUBSTANTIVE CHANGE POLICY

Principals of member schools must report to the Committee within sixty (60) days of occurrence any substantive change in the school which has a *negative impact* on the school's ability to meet any of the Committee's Standards for Accreditation. The report of a substantive change must describe the change itself as well as detail the impact on the school's ability to meet the Standards. The following are potential areas where there might be negative substantive changes which must be reported:

- elimination of fine arts, practical arts and student activities
- diminished upkeep and maintenance of facilities
- significantly decreased funding
- cuts in the level of administrative and supervisory staffing
- cuts in the number of teachers and/or guidance counselors
- grade level responsibilities of the principal
- cuts in the number of support staff
- decreases in student services
- cuts in the educational media staffing
- increases in student enrollment that cannot be accommodated
- takeover by the state
- inordinate user fees
- changes in the student population that warrant program or staffing modification(s) that cannot be accommodated, e.g., the number of special needs students or vocational students or students with limited English proficiency

Lowell High School

Commendations:

Standard 1 – Core Values, Beliefs, and Learning Expectations

1. The orderly, comprehensive process of adopting the PBIS model in the Freshman Academy
2. The identification of and the growth of the use of the RIDER acronym for succinctly encompassing major features of the Lowell High School Core Values, Beliefs, and Learning Expectations
3. The commitment to the school's social and civic competencies as demonstrated by being highlighted and in murals, banners, and signs in high traffic areas of the school

Standard 2 – Curriculum

1. The Lowell High School's Pathways program that provides hands-on, minds-on experiences connecting high school course work to the skills and knowledge students need for post-secondary education and careers
2. The development of courses that provide experiences that mirror offerings at the college level, including Latin Lyceum, Advanced Placement, and dual enrollment
3. The use of essential questions in designing curriculum which strongly focuses on inquiry, problem, and higher order and big picture thinking
4. The emphasis on the ethical use of technology in some sections of the English curriculum
5. The use of the monthly department meetings which provide teachers with the opportunity to create, implement, and review common assessments, to target gaps in the curriculum, and to make changes to course components and assessments ultimately benefiting teaching and learning
6. The math department's recent institution of a highly collaborative professional learning network (PLN) for groups of geometry, algebra and pre-calculus teachers
7. The core academic departments annual use of some professional development funds to run highly effective data summits for grade-level teams

Standard 3 - Instruction

1. The full embrace by the Freshman Academy of the core values derived from the PBIS and its use of those core values to guide and shape instructional practice
2. The purposeful move from a teacher-centered to a student-centered approach to pedagogy that more fully engages students as active and engaged learners
3. The presence in a number of courses such as culinary, business, fine and applied arts, and broadcasting that are fully centered on applying knowledge and skills to authentic tasks
4. The burgeoning use of technology to support the vibrant delivery of class content and to make college courses accessible to all students
5. The strong school culture that supports non-evaluative teacher observations and an openness that creates the opportunity for peer observation and the sharing of successful instructional practices
6. The strong partnerships with local colleges that enable students to earn college credits

7. The general willingness across the faculty to give freely of their time to assist students, to examine student work, and to engage with colleagues in focused discussions about assessment results all with an eye toward improving instruction
8. The adoption of the use of the District Determined Measure (DDM) scores to identify the weaker areas upon which to focus in order to improve instruction.
9. The strength of the Lowell Teacher Academy in supporting the new teacher-mentor program and in providing professional development opportunities focused on expanding the range of effective instructional strategies

Standard 4 – Assessment of and for Student Learning

1. The broad use by a majority of teachers of classroom and departmental rubrics to provide students with clear direction and connection to learning goals
2. The regular scheduling of data summits for analyzing student performance common assessments in all core areas to create goals to improve student achievement and to shape district and building level goals to better accommodate student needs
3. The focused analysis of specific assessment data sources such as ACCUPLACER, MCAS results, ACCESS testing, to inform math course selection and student placement for English language learners (ELL)
4. The dedication of time at Freshman Academy weekly department meetings and dedicated department meeting time during early release to analyze student work and student achievement data, to examine student assessments, and to make adjustments to curriculum and instruction
5. The practice by a majority of teachers of identifying the course-specific expectations in all types of assignments
6. The provision by most teachers prior to summative assessments of the corresponding rubrics
7. The establishment of partnerships with Middlesex Community College and UMass Lowell that provide data on the readiness of Lowell High School graduates to complete college work
8. The establishment of a grading policy committee to create and implement a uniform school-wide grading policy

Standard 5 – School Culture and Leadership

1. The numerous strategies adopted to ensure a safe school culture, including the development of emergency protocols for lockdowns and evacuation drills, the use of closed circuit cameras to remotely supervise areas throughout the building, and the employment of security personnel and school resource officers (SROs)
2. The wide range of strategies employed to maintain a positive school culture such as celebrating student achievement on bulletin boards, with “high five” cards, on the school’s website and social media outlets, and the redesign of the of the main entryway with an emphasis on LHS as a teaching and learning community
3. The numerous school social and academic practices that support a respectful school culture such as The International Club; monthly cultural awareness events and celebrations such as the Day of the Dead Festival, Cambodian New Year, and Three Kings Day; and the establishment of an English elective course for all students called Race and Ethnicity

4. The highly effective adoption of the advisory period (for grades 10-12) and the freshman seminar (for grade 9) to encourage connections between students and an adult who knows them well who can assist them in achieving the school's 21st century expectations
5. The adoption and the ongoing expansion of the Positive Behavior Intervention System as a mode for developing and maintaining a positive, unified culture on a school-wide basis
6. The strong commitment to improve student learning as demonstrated by the willingness of the school to piloting the new Massachusetts DESE model for teacher supervision and evaluation
7. The director of curriculum and instruction's adoption of positive initiatives aimed at improving teaching and learning such as the introduction of the Instructional Rounds protocol for gathering data on instructional practice across the faculty
8. The commitment to maintain/reducing class sizes as evidenced by maintaining staffing levels even in the light of declining enrollment to enable teacher to better met individual student needs
9. The headmaster's consistently strong individualized support and broad-ranging advocacy for student success, including the establishment of community partnerships, the emphasis on increasing attendance rates and decreasing the dropout rate, the initiation of an alumni interview program, the development of a large scholarship base, and strongly emphasizing community partnerships, such as the dual enrollments with UMass Lowell and Middlesex Community College
10. The establishment of the LHS Educator Workshop Series allowing current school leaders to share their knowledge and experience on various best practices in classroom management, differentiated instruction, working collaboratively, and using technology with the main focus of improving instruction
11. The positive presence of collaborative and supportive structures and open lines of communication in place between and among the school committee, superintendent, and headmaster

Standard 6 – School Resources for Learning

1. The successful pursuit of grant-funded programs to provide comprehensive educational opportunities to various at-risk populations within the student body, including a therapeutic day school (LeBlanc Day School), the student leadership and mentoring program for upperclassmen, compensatory services for students who have been suspended for long periods of time or who are not meeting with success in a traditional high school, and a before- and after-school tutoring program in the library
2. The wealth of strong options for student support, both in and out of school, for almost any need that may arise, including services for struggling students (e.g., JobCorps, YouthBuild, UTEC), for health services (e.g., suicide hotlines, birth control and pregnancy support, drug and alcohol prevention, eating disorder support), for partner programs (e.g., Catie's Closet, SCORE, Upward Bound), and after-school programs
3. The effective use of a wide array of technology to support the delivery of services to all students
4. The design and highly effective functioning of equitably staffed house-based teams in both grades 10-12 and in the Freshman Academy to ensure that counseling and support services are available for all students

5. The provision of a comprehensive range of varied health service options within the school including preventive health services, health assessments, referrals to outside providers, and the added resource of the school-based health center (SBHC)
6. The high level of engagement of the library media specialist in the integration of library/media services in the school's curriculum by way of regular meetings with the curriculum and instruction supervisor, department heads, and teachers; the orientation to program provided to all grade nine students focused on 21st century skills such as research strategies, higher order thinking, and decision-making; and increasing the range of electronic resources such as eBooks and data bases
7. The library media specialist's redesign of the library through the creation of many small seating areas to make it more welcoming to students and to make it a center for learning for all disciplines
8. The Compass Program pilot program (21st century program grant funded) designed to transition approximately 40 students from 8th to 9th grade during the summer of 2015
9. The maintenance of effective systems for implementing timely, coordinated, and directive intervention strategies for all students, including the focused use of the teacher assistance team (TAT) to support struggling students by reviewing assessment data, suggesting classroom interventions, and bringing to bear necessary support services
10. The provision of training in Rethinking Equity and Teaching for English Language Learners (RETELL) to most general education teachers

Standard 7 – Community Resources for Learning

1. The community and the district's support for a wide range of courses and high-interest electives offered at different levels in most departments
2. The district's strong financial commitment to maintaining reasonable class sizes that allows teachers to meet individual student needs
3. The city of Lowell and the school district for meeting the Massachusetts net school spending requirements under Chapter 70 for 2014-2015 school year
4. The city of Lowell and the school department's strong commitment to investing in needed upgrades over the past three years such as the replacement of some exterior doors, roofing, the renovation of the special education suite, and the renovation of the auditorium in the Freshman Academy
5. The focused renovations of the school's various auditorium and performance spaces that support the delivery of expanded learning opportunities such as guest speakers and various student productions
6. The daily maintenance of a remarkably clean building that reflects a high degree of student respect for Lowell High School
7. The clear and consistent commitment of the community, city officials, and the school district to securing funding for the renovation/construction of a new Lowell High School as evidenced by the funding of the OMR Comprehensive Facilities Assessment and the ongoing pursuit of a grant from the Massachusetts School Building Authority to underwrite a portion of the associated costs
8. The development and nurturing of strong partnerships with Middlesex Community College and UMASS Lowell which expand curricular offerings and provide opportunities to earn community college and for dual enrollment credits

9. The numerous partnerships with organizations, institutions, and businesses in the surrounding community that give rich opportunities for students to learn and grow outside of the standard classroom

Recommendations:

Standard 1 – Core Values, Beliefs, and Learning Expectations

1. Ensure that a sufficiently wide range of stakeholders are involved throughout any processes for the development and future review of the school's core values, beliefs, and learning expectations
2. Ensure that the Lowell High School 21st century academic, civic, and social learning expectations for student learning are stated in measurable terms
3. Create school-wide analytic rubrics for each of the LHS student expectations that identify targeted high levels of achievements
4. Develop a procedure to ensure that the LHS core values, beliefs, and student expectations are actively reflected in the culture of the school, drive curriculum, instruction, assessment in every classroom, and guide the school's policies, procedures, decisions, and resource allocations
5. Develop a dynamic, collaborative, and inclusive process for regular review and revision, as needed, of the LHS expectations for student learning, based on research, multiple data sources, as well as on district and school community priorities

Standard 2 – Curriculum

1. Undertake an audit of the degree to which the current curriculum and its practitioners provide sufficient opportunities in multiple settings across the school day for students to practice and achieve each of the school's learning expectations and act on the results
2. Develop a curriculum template whose form will allow for the identification in all courses or units of study essential questions, concepts, content, and skills; the school's 21st century skills that will serve as the focus of each course; instructional strategies; and assessment practices that include the use of school-wide analytic and course-specific rubrics
3. Develop a plan to ensure that the curriculum engages students in cross-disciplinary learning, provides authentic learning opportunities, and engages student in the informed and ethical use of technology in all courses
4. In consultation with the district design a plan that will ensure sufficient vertical communication about curriculum with all sending schools to directly share and/or discuss data, trends in instruction, and curriculum, and that will ensure sufficient horizontal and vertical communication about curriculum for all curriculum areas
5. Ensure that all curricula (CCSS, NGSS, MA frameworks, etc.) identify the 21st century skills upon which they will focus
6. Conduct a needs assessment to determine the optimum levels of support for staffing, instructional materials, equitable and effective access to technology, equipment, supplies, facilities, and the resources of the library/media center

7. Develop a plan for the regular review of the curriculum that engages and supports all professional staff in the collaborative development, evaluation, and revision of the curriculum using assessment results and current research

Standard 3 – Instruction

1. Conduct a school-wide audit of instructional strategies and identify and advance the use of those strategies that improve the students' achievement of the Lowell High School 21st century learning expectations
2. Develop and execute a plan, with sufficient financial support and dedication of professional development time, to increase the level of use in all classes instructional strategies that personalize instruction, engage students in cross-disciplinary learning, engage students as active and self-directed learners, emphasize inquiry, problem solving, and higher order thinking, engage students in self-assessment and reflection, and further integrate technology
3. Ensure that all teachers have adequate and equitable access to resources that support the full-scale integration of technology as a tool for instructional practices and a support to student learning
4. Develop and execute a plan to increase the use of all manner of formative assessment within each classroom as a means of providing a basis for improving outcomes in instructional practice
5. Provide as feature of instructional practice more frequent opportunity for students to be able to demonstrate comprehension in a manner in keeping with their learning style
6. Increase opportunities for common planning time to improve instructional practice and to provide opportunities for relevant professional development within contractual hours
7. Develop a formal process for successfully soliciting input from students and parents focused on instructional practice

Standard 4 – Assessment of and for Student Learning

1. Develop a formal process, based on the use of school-wide rubrics, for assessing whole-school and individual student progress in achieving the school's 21st century expectations
2. Develop a process for communicating to students, families, and the school community at large the individual and whole-school progress in terms of the success of students in meeting the school's 21st century learning expectations
3. Maintain data summits for all content areas based on common assessments in order to provide the school with meaningful data to inform the development of curricula and instruction
4. Develop a process to ensure that all teachers identify prior to each unit of study the school's applicable 21st century learning expectation
5. Create a process by which teachers establish a common understanding of formative assessment in order to master and employ formative assessments among a wide range of assessment strategies and use their accumulated data to inform and adapt their instructional practices to improve student learning
6. Ensure that all teachers provide students with timely, substantive feedback and also provide opportunities for revision on both formative and summative assessments so as to demonstrate mastery of a given lesson

7. Provide dedicated time for all teachers to regularly examine student work and to have full access to other assessment data for the purposes of revising curriculum, instruction, and assessment
8. Further develop partnerships with post-secondary schools, using data gathered therefrom to inform the revision of curriculum and instruction through data analysis
9. Collect data from current students and alumni and use them to inform the revision of curriculum and instruction
10. Develop and implement a formal assessment plan that includes the regular use of both formative and summative assessments in all subject areas

Standard 5 – School Culture and Leadership

1. Assess the reasons behind the relatively large number (33 percent) of students who identified bullying as concern and pursue remedies to address this perception
2. Complete a needs assessment and develop a plan, with both short- and long-term components, to continue to increase the level of equitable access to challenging students for all students
3. Develop, with sufficient input from faculty members and LHS administrators, fund and implement a comprehensive professional development schedule that will avail teachers and allow sufficient time to meet for a broad range of professional development opportunities
4. Develop a plan to expand Instructional Rounds groups as a method of expanding the school's range of instructional strategies to include more classroom teachers, not simply lead teachers
5. Develop and implement a comprehensive master schedule that will, not only, meet the learning needs of the LHS students but also, create flexibility for teachers to collaborate with other teachers both horizontally and vertically to ensure smooth curricular transitions and the spread of best practices
6. With input from all appropriate stakeholders, develop a comprehensive plan to guide the use of faculty meeting time (more collaborative time and less administrative housekeeping), department meeting time (more opportunity for collaboration among teachers), and non-instructional teacher time (more designated common planning time) to focus more clearly on the achievement of the school's 21st century expectations
7. Identify and develop various structures and procedures which will provide parents, students, and teachers the opportunity for input into the school's decision-making process and will establish formal roles for them as key stakeholders in the advancement of the school and the achievement of its expectations

Standard 6 – School Resources for Learning

1. Continue to ensure full access to all families to available support services for identified students by providing consistently reliable translation services by translators who are appropriately trained for a given situation (i.e., registration, discipline, initial assessment, crisis, medical needs) in student/parent home languages for both printed materials and in-person meetings
2. Create a coordinated method across all curriculum areas by which students continue to build upon the library media specialist's pre-existing 9th grade 21st century training in independent research strategies, the use of information resources to enhance the achievement of the school's

student expectations through higher order thinking, inductive, deductive reasoning, and independent work

3. Develop a codified process for fully engaging the library/media personnel in discussions about curriculum and instruction to ensure appropriate communication about library/media purchases that support teaching and learning
4. Undertake an inventory of available resources in the library media center focusing on the overall age of the collection, its level of integration with the school's 21st century learning expectations, and the suitability of range of resources for English language learners
5. Ensure that the physical size of the library media facility is capable of presenting a fully integrated library/information services program and that funding is sufficient to build and maintain a collection of library materials that fully support ELL students the achievement of the school's identified 21st century expectations for learning
6. Establish a resource for job coaching to help life skills students engage in meaningful employment in a real-world setting
7. Establish a system including special education testing in low-incidence languages to ensure the accurate assessments, distinguishing between student needs in ELL, special education, and/or mental health counseling
8. Ensure that all support service area (counseling, health, library/media services, support services for identified students) regularly conduct ongoing assessments using relevant data including feedback from the school community to improve student services and to ensure that each student achieves the school's s 21st century learning expectations

Standard 7 – Community Resources for Learning

1. Consistently provide a dependable funding stream for school programs and supplies
2. Provide sufficient funding for a range of professional development activities including, where needed, expertise from outside the school/district to support and enhance the achievement of the school's vision and goals
3. Undertake an audit of the process for timeliness of maintenance and repairs at Lowell High School and respond accordingly
4. Report to the Commission on the district's success in developing and actuating the long-term technology plan through 2017
5. Create an inclusive, equitable, and transparent method for the development and implementation of the school budget that instrumentally involves all stakeholders
6. Report to the Commission the school's and the city of Lowell's progress in securing authorization and funding from the Massachusetts School Building Authority for siting and renovating/building a new Lowell High School
7. Immediately repair any leaks in the bridges joining the individual school buildings
8. Schedule an audit by an appropriately certified entity that clearly and fully assesses all issues related to handicap accessibility and respond as needed
9. Ensure that all documentation that the physical plant and facilities meet all applicable federal and state laws and are in compliance with local fire, health, and safety regulations

10. Build on the authentic learning experiences that community organizations and higher education institutions offer by making explicit connections to the school's core values, beliefs, and learning expectations
11. Identify an effective method to track the level of parent involvement at various activities with the goal of establishing baseline data to be used to identify methods to increase that involvement