



Evaluation of the Massachusetts Expanded Learning Time (ELT) Initiative

**Year Five
Final Report:
2010-2011**

Executive Summary

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Executive Summary

The Massachusetts Expanded Learning Time (ELT) initiative was established in 2005 with planning grants that allowed a limited number of schools to explore a redesign of their respective schedules and add time to their day or year. Participating schools are required to expand learning time by at least 300 hours per academic year to improve student outcomes in core academic subjects, broaden enrichment opportunities, and improve instruction by adding more planning and professional development time for teachers. Schools draw upon state resources as well as technical assistance and support from Massachusetts 2020 (Mass 2020) and Focus on Results to implement expanded learning time in their schools. The first cohort of ten ELT schools (Cohort 1) received implementation grants to begin operating their expanded days in the 2006–07 school year; in 2007-08, a second cohort of nine schools (Cohort 2) began to implement ELT; and a third cohort of nine schools began in 2008-09, resulting in an initial group of 26¹ ELT schools in the Commonwealth. There has not been additional funding for new ELT schools since then. In the most recently completed school year, 2010-11, 19² schools continued to implement the initiative.

Abt Associates Inc. is completing a multi-year evaluation of ELT that examines both the implementation of ELT in the funded schools, and the outcomes for schools, teachers, and students hypothesized to result from effective ELT implementation. This report describes current implementation and outcomes for an initiative that has been underway for five full academic years. The staggered nature of the ELT initiative means that as of the end of the 2010-11 school year, participating schools have completed five, four, and three years of implementation (Cohorts 1, 2, and 3, respectively).

Study Design

The overall ELT evaluation is guided by three major evaluation questions:

1. How has ELT been implemented in schools that have received ELT grants?
2. What are the outcomes of ELT for schools, teachers, and students?
3. What is the relationship between ELT implementation and outcomes?

This report addresses all three of the evaluation questions. It focuses considerable attention on how the ELT initiative was implemented in the ELT schools during the 2010-11 school year, and also examines

¹ In 2007-08, one Cohort 1 ELT school closed due to restructuring. Also in 2007-08, an existing Cohort 1 ELT school merged with a non-ELT school to become a new ELT school; in 2008-09, this new school merged again, this time with multiple non-ELT schools, and became a new ELT school. Given the intensity of the restructuring this school underwent, ESE changed this school's cohort designation from Cohort 1 to Cohort 3.

² In 2009-10, two ELT schools, one a Cohort 2 and one a Cohort 3 school, in one district were merged; the combined school was designated a Cohort 3 school. During the 2009-10 and 2010-11 school years, six ELT schools left the initiative; in three cases the teachers' union and in two cases the district School Committee voted down the school's continued participation; in one case ESE did not renew the school's ELT funding due to underperformance and because the school's Level 4 status made it eligible for Federal SIG funding to aid with school turnaround. The total number of active ELT schools is as of the time of this report 19, 18 of which are included in this evaluation.

the effects of the ELT initiative on schools, teachers, and students in the three cohorts of ELT schools for three and four years of implementation.³ Finally, the report addresses the third question through a variety of descriptive and exploratory analyses of variation in implementation and associated variation in outcomes.

Below, the key findings from the implementation and then outcomes components are summarized.

Key Findings

Implementation of Core Components

In the fifth year of the ELT initiative, all funded schools continued efforts to create a school day that incorporated the major elements of ELT: increased core academic time, enrichment opportunities, and opportunity for teachers to engage in collaborative planning and professional development. Schools varied considerably in their respective efforts to implement the core components.

Core Academics and Instruction

- The ELT school day was just under eight hours, on average, in 2010-11.
- On average, almost five of the nearly eight hours of a typical school day were allocated to core academics (English Language Arts (ELA), math, science, and social studies). Twenty more minutes per day, on average, were allocated to core academics in 5th than in 8th grade.
- Overall, the plurality of time in an ELT school day was allocated to ELA, followed by math, then science and social studies. Specifically, of the five hours allocated to core academics:
 - The amount of time scheduled for English Language Arts (ELA) was 1 hour and 45 minutes, on average.
 - Nearly 90 minutes were allocated to math instruction, on average.
 - An average of nearly 1 hour was scheduled for science and 45 minutes to social studies per day.
- Time allocations for core subjects varied somewhat by grade. Specifically,
 - An average of about 45 minutes more each day was allocated to ELA in 5th than in 8th grade.
 - Slightly more time (12 minutes, on average) was allocated to math in 5th than in 8th grade.
 - About 20 fewer minutes were allocated to science and 15 minutes fewer to social studies in 5th than 8th grade, on average.
- While there are broad core principles guiding ELT implementation, ELT schools have flexibility in how they implement core components. As in past years, schools varied considerably in how they allocated time to various instructional activities.

³ The report presents findings based on two or three cohorts of schools in the main body; findings based solely on one cohort (Cohort 1) are presented, where appropriate, in appendices.

School-Wide Academic Focus

- In the 2010-11 school year, most ELT schools had a school-wide academic focus, according to both principals and teachers. Teacher and principal reports of the focus were consistent at 11 of 16 schools.
- Both teachers and principals reported that the most common focus area was literacy, although writing, math, and higher order thinking skills were also common foci.
- Elementary school teachers reported a literacy-related focus more frequently than middle schools, and middle school teachers reported that higher order thinking skills was the focus more frequently than elementary schools.
- Students were most likely to report that the focus was math; however, student reports were rarely consistent with those of principals and teachers or internally consistent within a school.
- At most schools, the focus was posted publicly, often in hallways, teachers' classrooms, and the administrative offices.
- According to principals, most ELT schools had implemented school-wide instructional practices, and the vast majority of teachers reported that their instructional practice was influenced by the focus.
- A substantial majority of teachers reported that they used data specific to the focus area to monitor student progress and adjust instructional practices. Most also reported that dedicated academic support was influenced by the school-wide focus.

Enrichment

- Most ELT schools have implemented separate enrichment classes. Nearly all students participated in enrichment classes/instruction, though the amount of time varied. Some schools also embedded enrichment activities within core classes.
- The amount of time a typical student spent in enrichment varied considerably, from daily to weekly. Similar to last year, middle school students appeared to spend more time in enrichment than elementary students.
- Approximately half of all ELT teachers reported that they taught at least one enrichment activity. Middle school teachers taught enrichment more often than elementary teachers.
- Regular teachers/staff taught some enrichment activities at most ELT schools, and over half the ELT schools relied on partner organizations to provide some enrichment; of those latter schools, regular meetings were scheduled for partner staff and teachers to collaborate, an increase over reported efforts to integrate partners from the previous year.
- Most teachers reported that they and their students had some choice about selecting enrichment activities. The vast majority of teachers reported that all students had access to enrichment activities, and enrichment activities were of high quality.

Common Planning Time and Professional Development

- More than half of ELT teachers (65 percent) participated in collaborative planning time weekly or more often.

- Only a small proportion of teachers (16 percent) reported never having participated in collaborative planning.
- Teachers reported participating in multiple activities during collaborative planning time, including analyzing student data, strategizing about instructional practices, and/or reviewing student work. The majority of teachers who reported participating in an activity also reported that the activity was useful.
- Teacher perceptions of principal leadership varied across schools. Teachers were more consistently positive about principals' ELT-focused leadership than they were about principals' leadership in general.

Implementation Index

The study team developed an index keyed to core principles of effective ELT implementation, as articulated by ESE and Mass 2020. The purpose of the index is two-fold: one, to integrate information from multiple data sources into one measure that could help to describe variation in schools' implementation efforts, both for individual schools and for the initiative as a whole; and two, to create a measure that could potentially be used to explore relationships between level of implementation and student achievement.

The index is based upon interview and survey data from staff and students in both ELT and matched comparison schools. Its structure and thresholds reflect contributions from ESE and Mass 2020 as well as the study team. The index includes separate scores for eight criteria related to six dimension of implementation⁴, and the dimension-specific scores are also combined into an overall index score. Each school received a score that ranged from zero (indicating no or very little evidence of implementation on a given criterion) to three (indicating consistent evidence of implementation on a given criterion) for each of the dimensions, some of which had more than one component.

Key findings about implementation based on application of the implementation index include:

- The range of total scores for ELT schools was from 5 to 22, and for comparison schools, the range was from 2 to 12 out of a total possible score of 24.
- The average total score for ELT schools was 11.4 and for comparison schools was 6.9.
- ELT schools, on average, scored higher than comparison schools on six of the eight criteria.
- Comparison schools scored notably lower on the enrichment-related criteria.
- On average, ELT schools' scores on individual criteria ranged from 1 to 2, and comparison schools' scores ranged from 0 to 1.
- Many comparison schools also appeared to be implementing at least some of the key components that are considered core expectations of the ELT initiative.

⁴ The implementation index dimensions include: school-wide academic focus, core academics in target grades (two subcomponents), enrichment activities (two subcomponents), teacher leadership and collaboration (two subcomponents), and school leadership, along with ELT-specific stakeholder support. Chapter 3 includes additional details about the index.

- For two of eight criteria, the average comparison school score was higher than the average ELT score.

Assessment of Outcomes

Student and Teacher Surveys

Findings from study-developed surveys are based solely on responses from the 2010-11 school year, regardless of individual schools' implementation year, because the surveys were substantially revised to ensure more detailed information from school respondents on time use, teachers' participation in the extended day teaching schedule, and overall time allocations across the schools. Consequently, survey responses could not be aggregated with prior survey responses to examine responses as a function of implementation year.

It is also important to note that the study surveyed all teachers across all content areas, and all eligible 5th and 8th grade students in study schools, and only those schools with response rates above 70 percent for both student and teacher surveys are included in findings presented in the report. Teachers from 37 schools (18 ELT and 19 matched comparison schools) participated in teacher survey administration. The response rates across the schools ranged from 64 to 100 percent. Eighteen ELT schools and 17 of the matched comparison schools achieved response rates of at least 70 percent⁵. While teacher responses can be assumed to be representative of teachers in study schools, student responses cannot, as they represent perceptions of students in only one or two grades within schools that serve between three and nine grade levels.

Extant data (e.g., attendance, MCAS scores)

Findings based on extant data sources are presented in terms of implementation year, as data were available for multiple academic years prior to 2010-11. For this latter group of outcomes, findings are presented in the main body for implementation years one through four (i.e., for schools with two or more years of ELT implementation); findings based on five years of ELT implementation (Cohort 1 only) are presented in the appendices.

Analysis of extant data uses a comparative interrupted time series design that leverages pre-ELT data, school, and year fixed effects when estimating the effect of ELT. This design is among the strongest quasi-experimental designs available, although its analyses are non-experimental. Since schools and their students were not randomly assigned to ELT participation, results cannot be attributed solely to ELT. The interrupted time series design, use of matched comparison schools and statistical controls, and rigorous model specification, taken together, are capable of yielding credible and robust estimates of program impacts. This report also presents results from a number of descriptive and exploratory analyses to provide context for the comparative analyses; while informative, these findings do not support causal conclusions, as they are based upon less robust analyses.

⁵ The two matched comparison schools that were excluded from analyses represent one Cohort 1 and one Cohort 3 school, and both are elementary schools.

Non-Academic Outcomes

Comparing Time Allocations in ELT and Matched Comparison Schools

- The length of the ELT school day was significantly longer for 5th and 8th grade students than would be expected in the absence of ELT.
- ELT schools allocated significantly more time for ELA, math, and science classes for 5th and 8th graders than would be expected in the absence of ELT.
- ELT schools allocated significantly more time for non-core classes and specials for 5th grade students than would be expected in the absence of ELT.
- ELT schools allocated significantly more time for enrichment activities for 5th and 8th grade students than would be expected in the absence of ELT.
- ELT schools allocated significantly more time for transitions, recess, snack, lunch, and homeroom for 5th and 8th grade students than would be expected in the absence of ELT.
- A statistically smaller proportion of students in ELT schools reported that they attend an academic club than would be reported in the absence of ELT.
- Significantly fewer students in ELT schools attended an after-school program than would be the expected in the absence of ELT.

Teacher Outcomes

- A significantly higher proportion of teachers in ELT schools reported that the length of the day allows them to accomplish their teaching goals and cover the amount of instructional material their students need to learn than would be expected in the absence of ELT.
- A significantly higher proportion of teachers in ELT schools reported that they are satisfied with the amount of time available for instruction in ELA, math, and science than would be expected in the absence of ELT.
- A significantly higher proportion of teachers in ELT schools reported that they are satisfied with the amount of time available for academic support, enrichment activities and for students to pursue topics of interest than would be expected in the absence of ELT.
- Significantly more teachers in ELT schools reported that they are satisfied with the amount of time available for collaborative planning and that the length of the day allows for coordination of instruction than would be expected in the absence of ELT. Conversely, significantly fewer teachers in ELT schools than the counterfactual reported that the amount of collaborative planning time is a problem area.

Student Outcomes

- A significantly higher proportion of teachers in ELT schools reported that teachers and students spend sufficient instructional time together than would be expected in the absence of ELT.
- Significantly more teachers in ELT schools reported that teacher and staff fatigue, as well as student fatigue, were problem areas than would be expected without ELT. Likewise, a significantly higher proportion of students in ELT schools reported that they were tired in school.

- Significantly fewer students in ELT schools reported that: they look forward to going to school; like being in school; that all of their classes are important to them; and that they like the length of their school day, than would be expected without ELT.
- A significantly smaller proportion of teachers in ELT schools reported that student academic performance and homework completion rates were problem areas.
- Students in ELT schools had statistically significantly higher suspension rates than would be expected in the absence of ELT; however, while statistically significant, the differences were extremely small in magnitude, and therefore are unlikely to have educational or practical significance.

Student Achievement Outcomes

- In the first and second years of implementation, ELT schools served a statistically significantly greater proportion of minority students than estimated in the absence of ELT, although the estimated magnitude of the differences (3.7 and 4.0 percentage points, respectively) is unlikely to be practically meaningful, and there were no effects of ELT on schools' minority student population in the third or fourth year.
- In the third year of implementation, ELT schools had a statistically significantly smaller proportion of highly qualified core academic teachers compared to the estimated proportion in the absence of ELT (2.9 percentage points).
- In the fourth year of implementation, ELT schools had a statistically significantly lower number of FTE teachers (4.7 fewer), and statistically significantly higher student-teacher ratio (almost two more students per teacher) than estimated in the absence of ELT.
- Across all years of implementation, there were no significant differences in average student mobility rates between ELT and matched comparison schools.
- Descriptive analyses restricted to ELT schools indicated variation in student performance levels among schools both before implementation began and in the most recent school year (2010-11), and indicated no consistent patterns of results. Descriptive analyses indicated that some schools have substantially increased the percentage of students that reached proficient or advanced performance levels, while others have experienced little change or decreased percentage of students at these same levels.
- On average, there were no statistically significant effects of ELT after one, two, three, or four years of implementation on MCAS student achievement test outcomes for 3rd, 4th, or 7th grade ELA, 4th, 6th, or 8th grade math, or 8th grade science.
- There was a statistically significant positive effect of ELT after four years of implementation on the MCAS 5th grade science test.
- Exploratory analyses using data from non-ELT schools in ELT districts, and non-ELT schools statewide, rather than the study's matched comparison schools, were generally consistent with the primary analysis, including the significant finding for 5th grade science noted above. In addition, there was a statistically significant negative effect of ELT on 3rd grade reading after two years of implementation, and there were statistically significant positive effects of ELT on 6th grade math and 8th grade science after four years of implementation in both the district-level and state-level

analyses. The state-level analysis also found a statistically significant positive effect of ELT on 7th grade ELA after one year of implementation and on 6th grade math after three years of implementation.

- Exploratory descriptive analysis linking the level of implementation in ELT schools and student achievement outcomes indicated no clear patterns or meaningful relationships.
- Exploratory analysis investigating the difference of the effect of ELT in higher- versus lower-implementing schools indicates minimal heterogeneity in the effect by the level of ELT implementation. However, the effect of ELT on 8th grade math in higher-implementing schools is estimated to be statistically significantly greater than the effect of ELT in low- implementing schools after three and four years of implementation.

Discussion

Across findings from interviews, surveys, and achievement data, the following themes seem clear:

- There is strong evidence that the ELT schools have implemented many core ELT elements, both in terms of additional time available for instruction, academic support, and enrichment and supports for teachers' use of that time.
- There continues to be substantial variation across ELT schools' level and approach to implementation (as measured by interviews, surveys, and an index).
- Measuring different aspects of time use is challenging: collecting information on a prototypical student in a given grade level may or may not reveal how students are supported by the ELT initiative and definitions of various activities/time uses are not consistent across schools.
- There are some, but not many, differences—even descriptively—between ELT and comparison schools on survey and achievement outcomes.
- The school reform landscape is dynamic and more schools (outside of this ELT initiative) appear to be expanding the amount of time in their school year, as well as implementing reforms consistent with the core ELT components with each successive year.
- This study was able to assess the quantity and allocation of time, but did not measure the quality of instruction, enrichment, and other activities made possible by the additional time, and clearly, the quality of such activities is also important.

Future Steps for the ELT Initiative

The ELT initiative has been underway for several years, and can now be considered a fairly mature intervention. Over that time period, as the schools' implementation efforts have matured, the contexts within which the schools operate have continued to change. Some of that change reflects increasingly explicit guidance from the Massachusetts Department of Elementary and Secondary Education, some reflects the increasingly targeted nature of technical assistance and support from Mass 2020 and Focus on Results, and some reflects the heightened visibility of ELT more broadly, through other federal and state initiatives such as School Improvement Grants and Race to the Top funding. While the federal, state, and local contexts have changed, and the implementation of the initiative in the ELT study schools has also

continued to evolve, the improved academic achievement outcomes for students have not materialized as expected across ELT schools as a whole.

This multi-year evaluation has described schools' ongoing implementation efforts in four prior interim reports. ELT schools clearly have made progress on implementing many of the core elements of ELT and, as measured by the study's implementation index, score higher than the matched comparison schools on average. Yet the patterns of implementation differ as much across the ELT schools as between the ELT and comparison schools, highlighting the variation in ELT across the initiative. The fact that such variation exists in the initiative's fifth year illustrates both the complexity inherent in large-scale efforts to transform low-performing schools and the variation that inevitably results from flexible interventions that can be shared to fit individual schools' needs. It may also reflect the different motivation of schools to participate in ELT from the outset, as some schools opted in voluntarily while others were strongly encouraged to apply.

Variation in ongoing implementation is clearly a continuing theme for the Massachusetts ELT initiative. Prior years' impact analyses have found little evidence of effects on students' academic achievement, and the results from the fifth year indicate that students' academic achievement outcomes, on average, have largely remained unaffected. Descriptive and exploratory analyses provide limited suggestive evidence that student growth in ELT schools is greater than growth in non-ELT counterparts, yet such results are not generally statistically significant. Despite the demonstrable progress ELT schools made to implement core components of ELT, those implementation efforts have not yet consistently translated the additional time into the content, strategies, or support that in turn yield improved overall student performance.