

**More Time for Learning
Student Participation in
Extended Day Programming
at the UCCS Donoghue
Campus During the
2009-2010 School Year**

**Joy Lesnick
Bonnie Hart
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2011

school systems

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Introduction

The amount of time that students spend in school has received increased policy attention at the school, district, state, and national levels. Across 30 states, more than 300 initiatives to extend learning time in high-poverty and high-minority schools were launched between 1991 and 2007 (Rocha, 2008). More time is not enough, however. According to the Expanded Learning Time Initiative at Mass2020, schools that are successful at expanding learning time not only add hours to the traditional school day but also incorporate several other strategies into their extended learning time effort (Farbman and Kaplan, 2005). First, schools are highly focused in their approach, concentrating on a small number of key goals. Second, these schools are relentless in their use of data to drive continuous improvement and strengthen core instruction. Third, they add core academic time that allows teachers to individualize support for students and accelerate achievement. Fourth, these schools strategically add time for teachers to collaborate to strengthen instruction. Finally, they engage students in high-quality enrichment programs that build skills, interests, and self-confidence.

Reviews of the research literature on extending the school day (ED) or extending the school year (EY) specify five different types of learning time: (1) *allocated school time*, the number of school days in the year and the number of hours students are required to attend school; (2) *allocated class time*, time that students are required to be in class which consists of either (3) *noninstructional time*, time in the classroom, but not engaged in instruction (i.e., organizational or administrative activities, discipline, classroom management, etc) or (4) *instructional time*, time devoted to instruction. Finally, (5) *academic learning time* is the time during instructional time that students are actively engaged in and experiencing learning (Aronson, Zimmerman & Carlos, 1999; Karweit, 1985; Silva, 2007).

A recent synthesis of the research literature (Pattall, Cooper, & Allen, 2010) focuses on *allocated school time* as the variable of interest when deciding whether ED or EY affects student achievement and finds few studies that are strong enough to make causal inferences about the effect of either ED or EY on

student achievement. However, existing studies do suggest that extending school time can be an effective way to support student learning, particularly when it is focused on students most at risk of school failure, and when considerations are made for how time is used.

This report focuses on describing and documenting the participation of students in the Extended Day Program at the Donoghue Elementary School, a University of Chicago Charter School. At Donoghue, the extended day program is designed to help students achieve academic success and develop positive values, high self-esteem, healthy habits, and a sense of purpose. The program includes not only additional school time, but also a reorganization of the school day and the staffing schedules of adults who support student learning. Unlike other research that focuses on the amount of *allocated school time* or *extended time* beyond the traditional day, this analysis takes a much more nuanced look at the individual experiences of students in order to quantify the enhancement of learning opportunities they receive, using a unit developed by the research team called the Intensity of Teacher Minutes (ITM), a calculation that incorporates both time spent at school and the teacher-student ratio during that time. ITMs are used to document the degree to which students at Donoghue receive extended or enhanced programming, as well as the relationship between extended learning time and student reading performance.

The Donoghue Extended Day Model

The University of Chicago Charter School (UCCS) consists of four public school campuses that share a single overarching mission of preparing students for success in 4-year colleges. Established in 2005, Donoghue is one of two elementary school campuses of UCCS, serving students in pre-K through fifth grade. Donoghue operates an extended day model that is designed to offer specialized programming to students in order to improve both academic and socio-emotional outcomes. According to a brochure distributed to parents, the Extended Day Program at Donoghue “seeks to extend the learning of each participant through reinforcement of the quality instruction that occurs during the day and access to enrichment experiences in the following areas: literacy, writing, math, arts, recreation, sports, community service, and career and college readiness.”

At Donoghue, extending the learning time means more than adding time outside of the traditional school day (or the available *allocated school time*, as described in the research earlier). Not only is additional programming provided before school, after school, during the summer, and on the weekends, but additional programs take place during the school day to meet the individual needs of students. Multiple student groupings in a variety of programs combined with an increased number of adults providing services allows students to enjoy lower teacher-student ratios and to better receive individualized support. These programs include academic interventions, homework help, character education, experiencing the arts, mentoring, peer relationships, and others. Table 1 displays the wide variety of programming available to students based on their personal needs.

Table 1. Extended Programming Offered at UCCS Donoghue during the 2009-2010 School Year

	Program	Grade Levels	Description
Before School 7:00am–8:10am	Early Bird	Pre-K–5 *enrollment data available only for grades 2-5	A variety of activities offered daily to students before the school day begins including group games, art projects, library time, and literacy tutoring.
During School 8:15am–3:00pm	City Year	3–5	Individual academic tutoring offered four times a week for 30 minutes by a City Year volunteer.
	Kaplan	2, 4, 5	Self-guided, computer-based enrichment activities offered for 1 or 2 hours per week.
	Social Work	K–5	Counseling with school social worker, offered in both group and individual settings at frequencies determined by student needs.
	Resource	K–5	Resource teachers provide additional support to special education and regular education students who require extra support. Instruction may take place in the student’s regular classroom or in a different setting, one-on-one or in a small group.
	Math Intervention	2–5	Math support provided to an individual student or group of students, usually once or twice per week for 20-45 minutes.
	Literacy Intervention	K–2	Literacy support provided to an individual student or group of students, usually once or twice per week for 20-45 minutes.
After School 3:00pm – 6:00pm	Extended Day	Pre-K–5	A daily, 3-hour program offered after the regular school day which includes varied activities such as homework help, music, dance, and character education.
Weekend 10:00am – 2:00pm	Saturday Tutoring	Pre-K–5	A weekly, individual academic tutoring session lasting 1 hour on Saturdays.
	Boys’ Mentoring	2–5	A weekly, 4-hour group mentoring session on Saturdays for boys focusing on character building.
	Polished Pebbles Girls’ Mentoring	2–4	A weekly, one-on-one mentoring session for younger girls.
	Girl Power Girls’ Mentoring	5	A weekly, one-on-one mentoring session specifically for fifth-grade girls.
Summer 8:00am–12:00pm	Summer School	K–5	Four weeks of summer instruction that complements instruction during the school year.
12:00pm–5:00pm	Summer Extended Day	1–5	Four weeks of extended day programming offered daily after the summer school day, similar to the extended day programming offered after school described above.

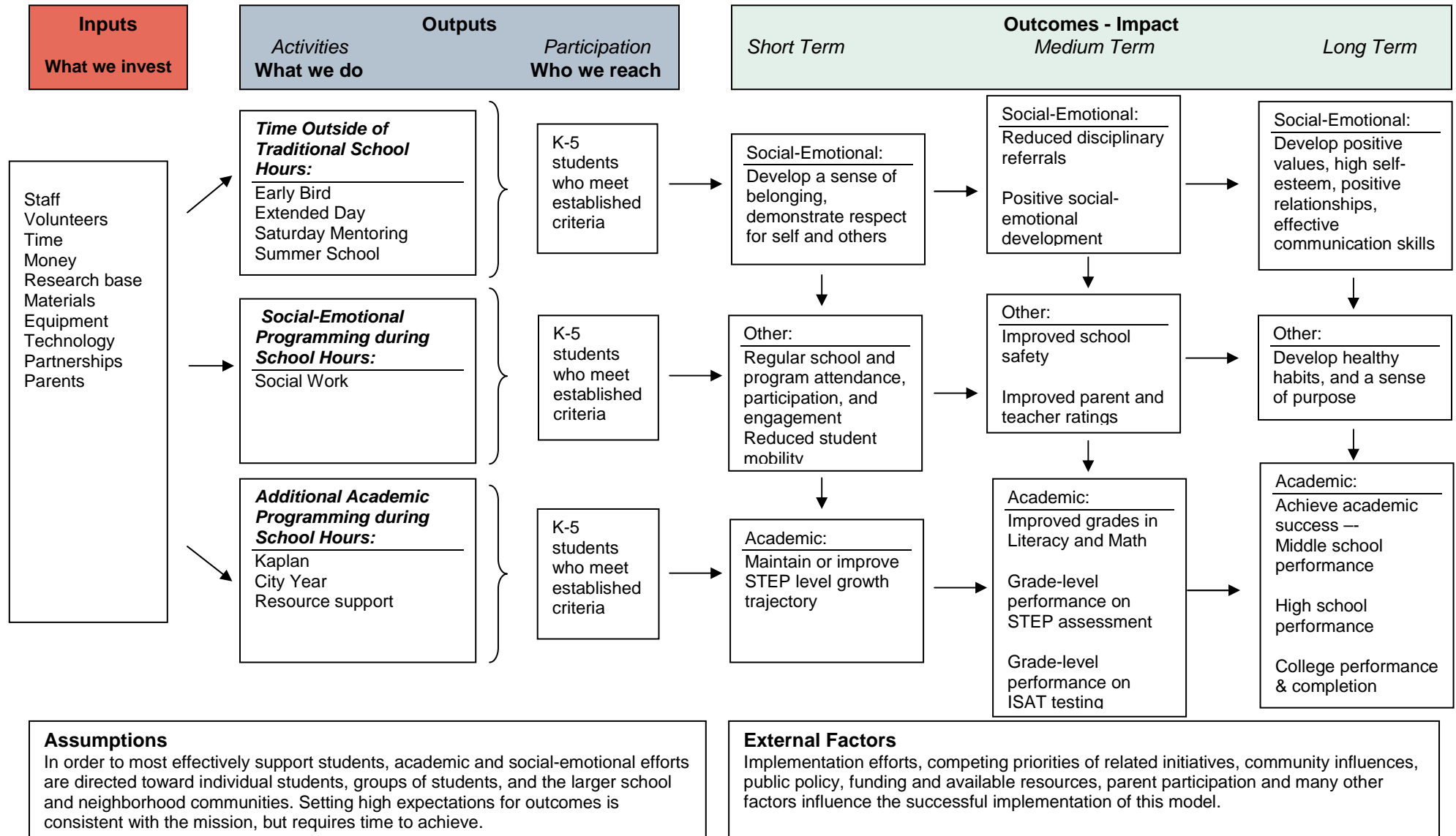
All students at Donoghue are monitored and observed regularly by a variety of adults. Parents, classroom teachers, specialists, tutors, social workers, psychologists, administrators, and other specialized personnel all collect information about student progress and performance—both academically and socially—on a regular basis. This information is often informally collected in the form of observations and conversations, but it can also take the form of assessments (academic and social-emotional), student classroom work, and disciplinary referrals. When any member of the adult team perceives that the student may need extra support, a process called AS3 (Academic and Social Support System) is implemented. The purpose of this process is to bring together information about the child’s progress from all available sources—both formal and informal—and to develop a plan to best support the child’s individual needs moving forward. Because many different adults interact with students on a daily basis, there are many opportunities to make sure that students do not “fall through the cracks” in terms of receiving the individualized support they need to develop both academically and successfully.

A working draft of a logic model for Donoghue’s Extended Day program (displayed in Figure 1) illustrates the relationship between inputs, outputs, and outcomes. Although it is still in development and refinement, the logic model helps to place the many different available extended day programs into context, showing how the inputs that are invested are related to academic and social-emotional activities both during the day and after school hours, and the potential short-term, medium-term, and long-term outcomes that result from those activities. This logic model only includes activities for students, but another part of the extended day work focuses on professional development for teachers and increasing family participation. In short, many adults are involved in the extended day model at Donoghue, including administrators, teachers, tutors, volunteers, parents, and community members. Additional staff (beyond the teaching faculty, counseling, leadership and administrative staff) were hired to focus solely on providing the enhanced academic and social-emotional programming offered to students at Donoghue as a result of the extended day model. Many of the staff have staggered schedules in order to allow for the extended time that the school is open to support students.

Figure 1. Working Draft of a Logic Model of the Extended Day Program at Donoghue

Situation: Improving academic and social performance during elementary school is critical to achieving the UCCS mission of preparing all students for success in 4-year colleges.

Priority: Create a school community that focuses on student academic and social development by offering community programming for students and families beyond the school day.



Study Purpose and Research Questions

The purpose of this study was to examine the participation of students in extended day programming at Donoghue during the 2009–2010 school year and to explore whether participation was related to academic performance and improvement. Specifically, two main research questions guided this work.

1. To what extent were students involved in extended day programming at Donoghue during the 2009–2010 school year?
2. What is the relationship between student participation in extended day programming and academic outcomes (as measured by STEP reading assessments explained below)? Do students who read below grade level at the beginning of the year receive the most opportunities to extend the learning time?

In addition, the research team was asked to use the information gathered about program participation to provide recommendations for future data collection and research.

Using STEP /Lesley Levels of Reading Performance

According to the University of Chicago’s Urban Education Institute, STEP (Strategic Teaching and Evaluation of Progress) is “a developmental literacy assessment for Grades PreK–3 that includes a set of tools, tightly aligned with scientifically established milestones in reading development, to follow the progress of pre-kindergarten through third grade students.” In grades 4 and 5, a similar process following the Fountas and Pinnell Benchmark Assessment System (BAS) based at Lesley University in Cambridge, Massachusetts is used to assess student performance, which is why the levels are reported in letters instead of numbers. The combined system at Donoghue is often referred to as STEP/Lesley.

Methods

Data Collection

Data for this study was collected from a thorough review of all available administrative records, including report cards, STEP assessment levels, teacher grade books, and program enrollment and attendance lists. Information was also collected verbally from school administrators and other staff. Enrollment and attendance data (when available) for all students during the 2009–2010 school year was entered into a SAS dataset for analysis.

Analytic Approach

The study included two levels of analysis: grade-level and student-level. The grade-level analysis focused on overall participation in extended programming and the academic progress of students by grade level. At the student level, we determined each student's unique combination of programming and calculated their dose of participation. These measures were also analyzed in relation to their academic growth and performance.

“Intensity of Teacher Minutes” or ITMs

Devising a way to quantify the differing levels of instruction students received was a unique challenge in this study. As mentioned previously, Donoghue offers a wide range of extra programs, which are tailored and combined to meet student needs, such that each student receives a personalized “menu” of services. This makes it necessary to track each student individually.

For extra programming that occurs outside of the regular school day (before/after school, on Saturdays, or during the summer), the number of additional minutes of programming was added to each student's in-school total to represent the additional learning time that students received. However, many programs that

enhance the daily learning of students are offered to students *during* the school day. In this case, counting the additional minutes is not sufficient, since no additional time has been added to the school day. Rather, the intensity of instructional programming that students receive has been enhanced.

The solution to the problem of how to represent the additional intensity of programming time was to devise an original measure called Intensity of Teacher Minutes (ITMs). This is a dosage measure that takes into account the amount of time throughout the day that students spend in different academic settings (e.g., full classroom, small group, one-on-one). For example, in a setting with a 1:1 teacher-student ratio, it can be assumed that a child receives more teacher attention than in a setting with a 1:25 teacher-student ratio. Although it is not an exact measurement (a teacher with 25 students rarely will split his or her time equally with every student during a given time period), we use the ITM unit as a proxy for the intensity of time that teachers are able to provide to students that is the direct result of the number of students in the class. Therefore, students in a 1:1 setting will have a higher number of ITMs for that time period than a student in a 1:5 setting, or a student in a 1:25 setting.

A student's ITMs are calculated for each program in which s/he is enrolled and then added together to get the total ITMs for the year. The ITMs for a specific program are calculated as follows:

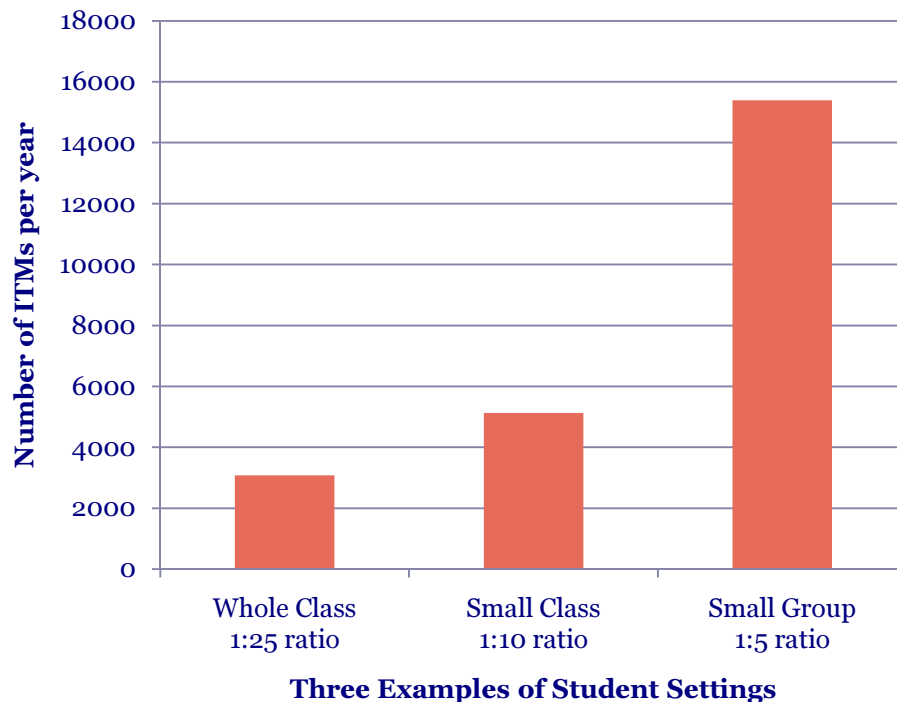
$$ITMs = \frac{(\text{minutes per day}) * (\text{days per week}) * (\text{weeks per year})}{(\text{student teacher ratio})}$$

For example, a student who attends school during the traditional school day of 8:15am to 3:00 pm is in school for 405 minutes each day, 5 days per week, and 38 weeks per year (190 total school days, assuming no absences). If the student spends all 405 minutes in a setting where there are 25 students and 1 teacher for the entire year, s/he receives 3078 ITMs during the entire school year.

$$ITMs = \frac{(405) * (5) * (38)}{(25/1)}$$

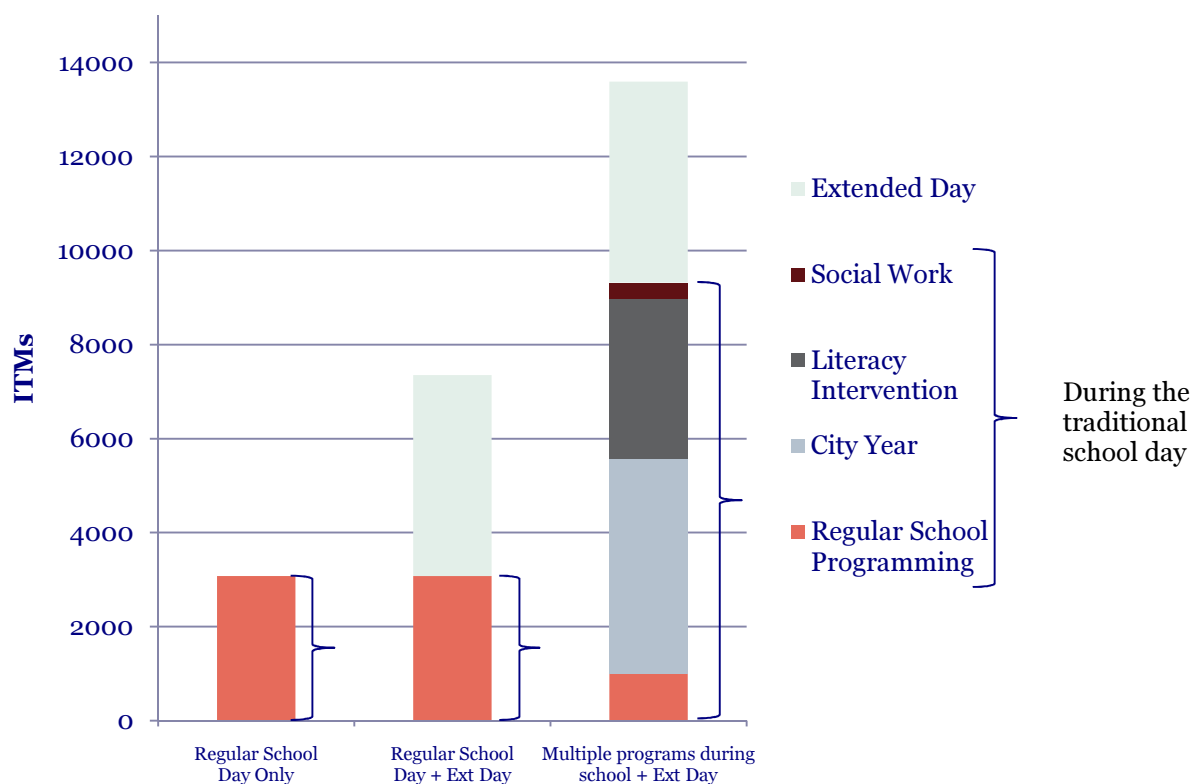
However, if a student spends the entire year in a setting where there are 10 students and 1 teacher, his/her yearly ITMs will increase to 7695, and even higher to 15,390 ITMs if there are only 5 students and 1 teacher for the entire year. Figure 2 displays an example.

Figure 2. Yearly ITMs Increase When Students Are in Settings with Lower Student-Teacher Ratios.



At Donoghue, it is unusual for students to spend all of their allocated class time in one instructional grouping. Instead, throughout the course of the day, students are grouped in different ways, with different adults, and in different student-teacher ratios. Therefore, it is possible for each student to have a different yearly ITM total for activities that take place during allocated school time, or the regular school day. In addition, when a student participates in extended day programming, including before school, after school, weekend, and summer activities, ITMs for those activities are added to the in-school total. Figure 3 shows three examples of how these ITMs can add up. The first bar displays ITMs for a student attending the regular school day setting throughout the year (3,078 ITMs as in the first bar in Figure 2 above). In the second bar, ITMs are shown for a student who attends a regular school day and the extended day (afterschool) programming. ITMs are added on top of the ITMs that represent during school time. In the third bar, however, the student does not experience a “regular” school day setting. Instead, the student is provided with multiple group settings and supports throughout the school day. In addition to the time spent in the regular classroom (1:25) setting, the student also receives City Year tutoring, Literacy Intervention from a specialist, and attends a discussion group facilitated by the social worker. For each of the three bars, the bracket represents the *allocated school time* during the school day. Extended day programming in the third bar is the same amount as in the second bar, but is added on top of the ITMs that this student receives during the regular school day.

Figure 3. Three Examples of ITMs that Represent Time Spent both During and After School



Using the ITM as proxy for the intensity of time that a teacher spends with each student allows us to compare the ITMs received by all students during the course of the year. Without being able to differentiate the amount of programs and groupings that students receive during the school day, all students would have the same amount of regular school programming. Even students receiving special education services who have Individual Education Plans (IEPs) that require additional 1:1 teacher-student time during the day, as well as students who spend most of the day in a smaller special education group setting will have ITM totals that can be compared to their peers. The ITM measure accurately captures the different types of school-day experiences offered to each student at Donoghue.

Findings

Participation in Extended-Day Programming

Nearly all Donoghue students participated in one or more of the many programs that extend the learning day and increase the intensity of attention students receive from teachers and other adults during the 2009–2010 school year (see Table 2 and Figure 4). However, because enrollment data was not available for the Early Bird program for students in grades Pre-K, K, and 1, the percentages displayed in Table 2 and Figure 4 may underestimate the actual numbers of students in these grades.¹

Table 2. Extended Day Program Participation at UCCS Donoghue in 2009-2010

Grade	Number of Classrooms	Number of Students	Percent of Students Participating in Any Program that Extends Learning Time (%)
Pre-K	2	37	57 *
Kindergarten	3	75	73 *
1 st	3	75	76 *
2 nd	2	50	98
3 rd	2	50	100
4 th	2	50	100
5 th	2	43	98
Total	16	380	85

*Enrollment data for the Early Bird program was not available for students in grades PreK, K, and 1 during the 2009-2010 school year. Therefore, the percentages listed here do not include enrollment data for the Early Bird program—a popular program for extending the school day at all grade levels. Actual participation rates for students in grades PreK, K, and 1 would likely increase if Early Bird enrollment data could be included.

¹ According to Donoghue school administrators, nearly all students are enrolled in the before-school program.

The majority of students participated in more than one program that extended the school day during the 2009–2010 school year. Figure 4 displays the number of programs in which children were enrolled for each grade level. Students in grades 2–5 participated in more programs as compared to students in grades Pre-K, K, and 1, which is not surprising given that more programs were offered to students in higher grades during the 2009–2010 school year. The average number of programs in which students were enrolled is displayed in Table 3.

Figure 4. Donoghue Students Participated in up to Seven Programs that Extended the School Day in 2009-2010.

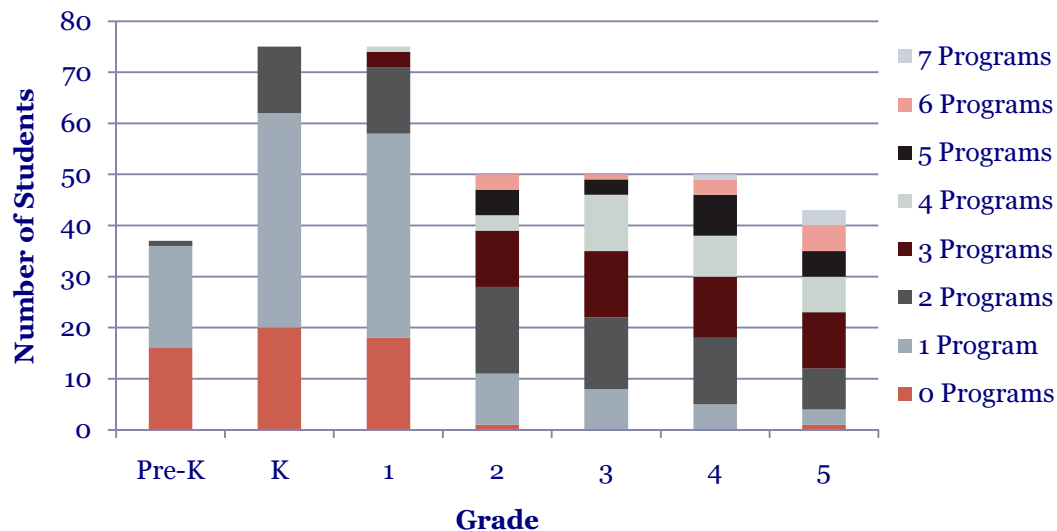


Table 3. On Average, Students in Higher Grade Levels Participated in More Programs that Extended the School Day.

Grade	Mean Number of Programs in Which Students Were Enrolled During 2009-2010 School Year
Pre-K*	0.6
K*	0.9
1*	1.1
2	2.6
3	2.8
4	3.3
5	3.6

*Enrollment data for the Early Bird program was not available for students in grades Pre-K, K, and 1 during the 2009-2010 school year. Therefore, the percentages listed here do not include enrollment data for the Early Bird program—a popular program for extending the school day at all grade levels. Actual participation rates for students in grades Pre-K, K, and 1 would likely increase if Early Bird enrollment data could be included.

Furthermore, the combination of programs in which students were enrolled was extremely personalized. More than 100 different programmatic combinations were present in the enrollment data. Table 4 shows that the more programs a student received, the more likely the combination of programs was tailored specifically to the needs of that student. For example, 21 students participated in 17 different combinations of 5 different programs, 12 students participated in 12 different combinations of 6 programs, and 4 students participated in 4 combinations of 7 programs.

Table 4. Students Participated in More than 100 Different Programmatic Combinations.

Number of Programs	Number of Students	Number of Different Combinations
0	56	N/A
1	128	9
2	79	22
3	50	26
4	30	24
5	21	17
6	12	12
7	4	4
TOTAL	380	114

Looking more closely at the combinations of three programs experienced by students helps us to better understand the depth to which supports provided for students were differentiated according to their individual needs. By way of example, 50 students (across different grade levels) participated in 3 extended-day programs at Donoghue during the year 2009–2010 school year. Of those 50 students, 26 different combinations of programs were observed, as displayed in Table 5 below.

Table 5. Twenty-Six Different Combinations of Three Programs

Number of Students	Program 1	Program 2	Program 3
11	Early Bird	Extended Day	Mentoring
4	Early Bird	Extended Day	City Year
3	Extended Day	Kaplan	Mentoring
3	Extended Day	Kaplan	Social Work
3	Early Bird	Extended Day	Social Work
2	Early Bird	Kaplan	Mentoring
2	Early Bird	Kaplan	Social Work
2	Early Bird	Extended Day	Tutoring
2	Early Bird	Extended Day	Math Intervention
2	Early Bird	Extended Day	Kaplan
1	Social Work	Math Intervention	Mentoring
1	Social Work	Resource	Mentoring
1	Kaplan	Social Work	Tutoring
1	City Year	Mentoring	Tutoring
1	City Year	Social Work	Mentoring
1	City Year	Kaplan	Math Intervention
1	Extended Day	Literacy Intervention	Tutoring
1	Extended Day	Social Work	Mentoring
1	Extended Day	Social Work	Literacy Intervention
1	Extended Day	Social Work	Resource
1	Extended Day	Kaplan	Literacy Intervention
1	Extended Day	City Year	Resource
1	Early Bird	Mentoring	Tutoring
1	Early Bird	Resource	Math Intervention
1	Early Bird	Kaplan	Tutoring
1	Early Bird	City Year	Kaplan

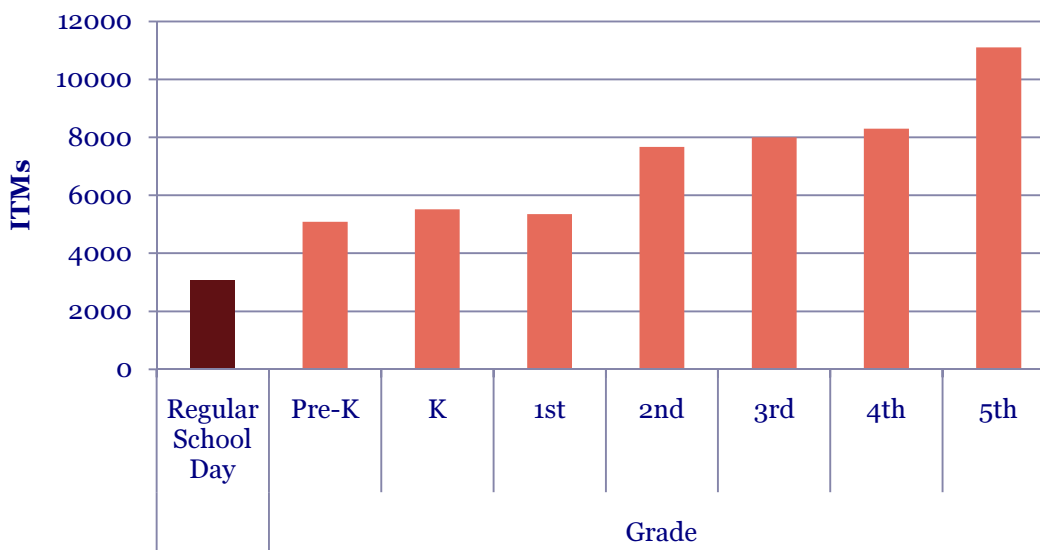
Given this assortment of programming combinations, it is clear that students do not receive any kind of “packaged approach” to extended learning time.

Intensity of Teacher Minutes (ITMs) Received by Students as a Result of Extended Day Programming

As described above, Donoghue students participated in a range of programs that extended the learning day during the 2009-2010 school year. Using the ITM unit of measure, we can more carefully quantify the extent to which student received additional support beyond counting the number of programs in which they participated. Looking first at the average number of ITMs for students at each grade level, we find that the mean number of ITMs increases by grade. This is consistent with the fact that as students get older, they become eligible for an increasing number of programs (especially those focused strictly on

academics). Figure 5 displays the average ITMs for each grade level compared to a regular school day in which students receive no extra programming (3,078 ITMs).

Figure 5. Average ITMs for Students by Grade Level Compared to the Regular School Day

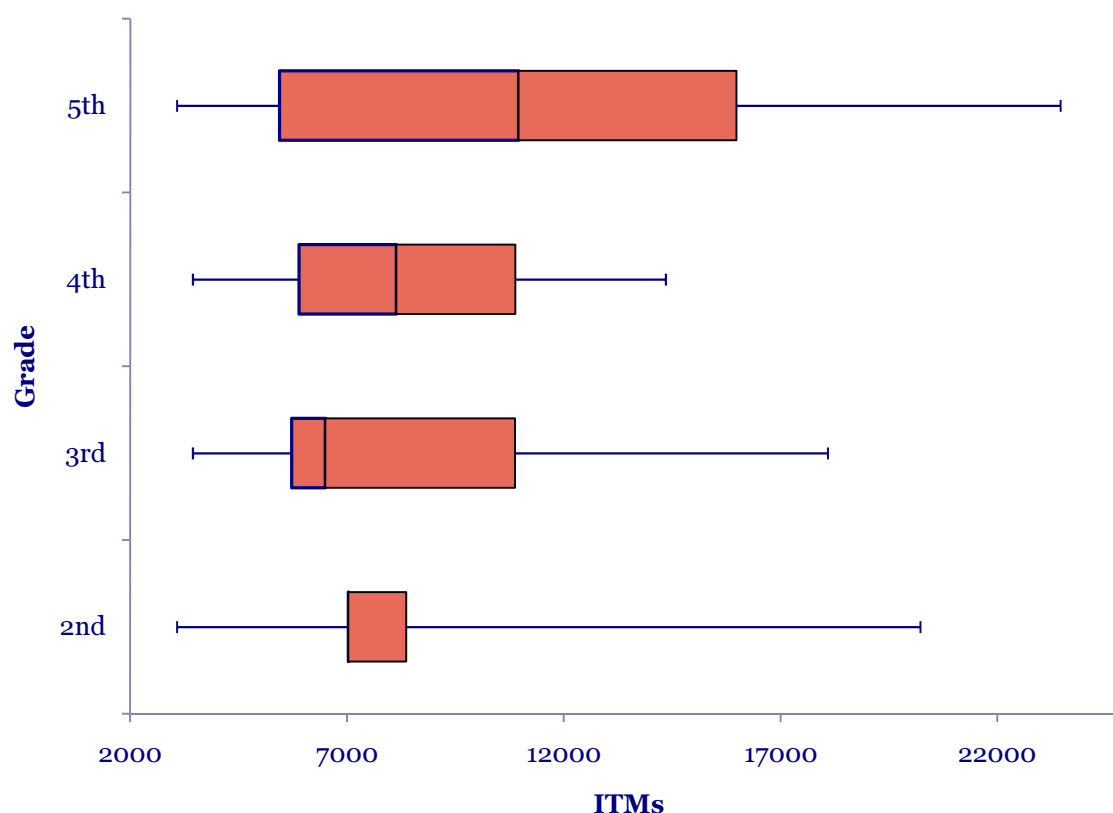


Because ITMs are calculated individually for each student, the measure results in a wide range of values, which accurately depicts the varying levels of programming received by students. This range reveals that there is a great deal of variation in ITMs beyond considering the mean values of ITMs presented in Figure 6. Figure 6 displays the distribution of ITMs in box plots for second through fifth graders.²

The box plots show the distribution of the intensity of teacher-minutes (ITMs) for second- to fifth-grade students during the 2009–2010 school year. The rectangular (“box”) represents the scores of students who fell within the 25th and 75th percentile of all scores in that category. The right edge of the orange box represents the value of ITMs in the 75th percentile of the distribution, and the left edge of the orange box represents the value of ITMs in the 25th percentile of the distribution. The line inside the box is the median, or the 50th percentile of the distribution. The two lines (the “whiskers”) are drawn from the rectangle to the extreme values (highest number of ITMs at the right and lowest number of ITMs at the left). For example, third graders had ITMs that ranged from 3,443 ITMs to 18,091 ITMs, and fourth graders had ITMs that ranged from 3,443 to 14,352. (Note: There are only a few ITMs difference between the first and second quartile for second graders, which explains why there is no additional line in the box that represents the median).

² Students in grades Pre-K, K, and 1 were excluded from these charts due to the missing enrollment data for the Early Bird program and resulting lack of variation in ITMs.

Figure 6. Students Received a Range of ITMs at Each Grade Level.



Relationship between Extended Day Programming and Reading Achievement

The overarching purpose in providing students with additional learning time and supports is to increase academic achievement and socio-emotional development. Ideally, we would be able to examine the relationship between extended day programming and all of the intended outcomes. However, at the time of this research study, the only available outcome measure was student reading performance as measured by the STEP/Lesley assessment. Therefore, in this section, we explore the relationship between participation in extended day programming and reading achievement for students in grades 2–5, recognizing that other measures of learning and development can also be used in future work.

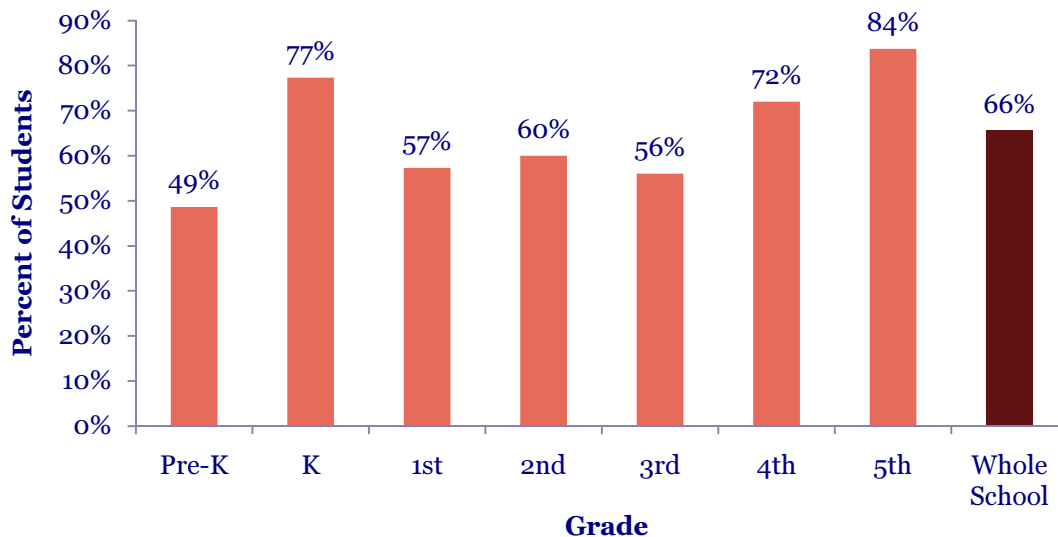
In UCCS elementary schools, reading levels are measured four times per year using the STEP (Strategic Teaching and Evaluation of Progress) and Lesley assessments. Results range from the level of “pre-reading” to STEPs 1 through 12, and then Lesley levels Q through Z. Table 6 below shows the expected STEP/Lesley level for each grade to be considered “on grade level.”

Table 6. On Grade Level as Measured by the STEP/Lesley Assessment

Grade	Expected STEP/Lesley Level at the Beginning of Year
K	Pre-Reading
1	3
2	6
3	9
4	12
5	S

Students are expected to make three or more levels of progress each year, regardless of their starting level. However, students who are below grade level need to make additional progress in order to catch up to the grade-level expectations. During the 2009–2010 school year, 66 percent of students at Donoghue gained three or more STEP/Lesley levels, as shown in Figure 7. More than half of students in each grade from K–5 made adequate yearly growth, with the highest level of success in fifth grade, where 84 percent of students gained at least three reading levels.

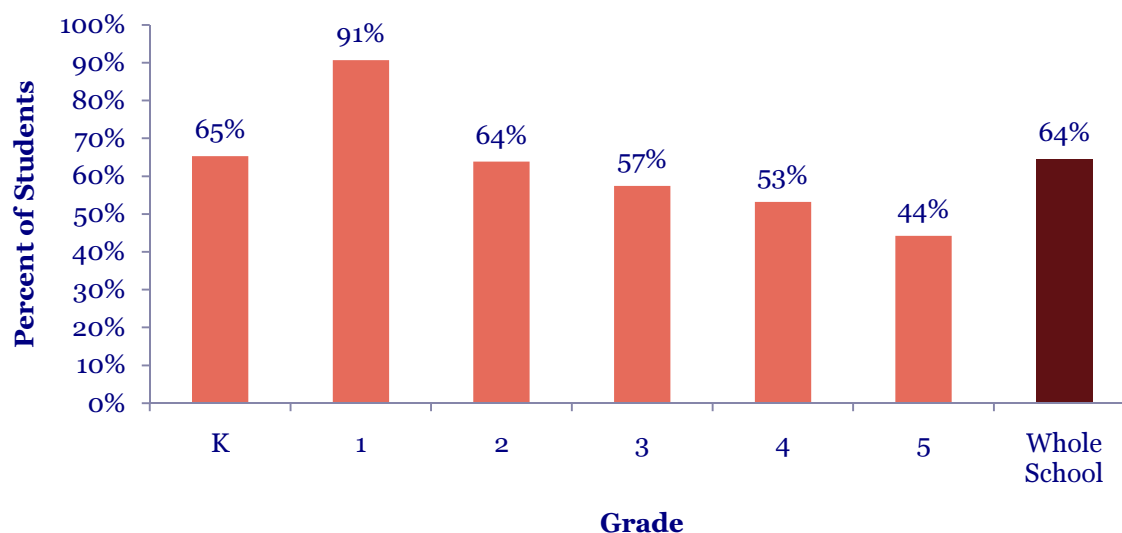
Figure 7. Percent of Students Making at Least a Year of Growth on the STEP/Lesley Assessment in 2009-2010^a



^a Defined as progressing three or more levels during the school year

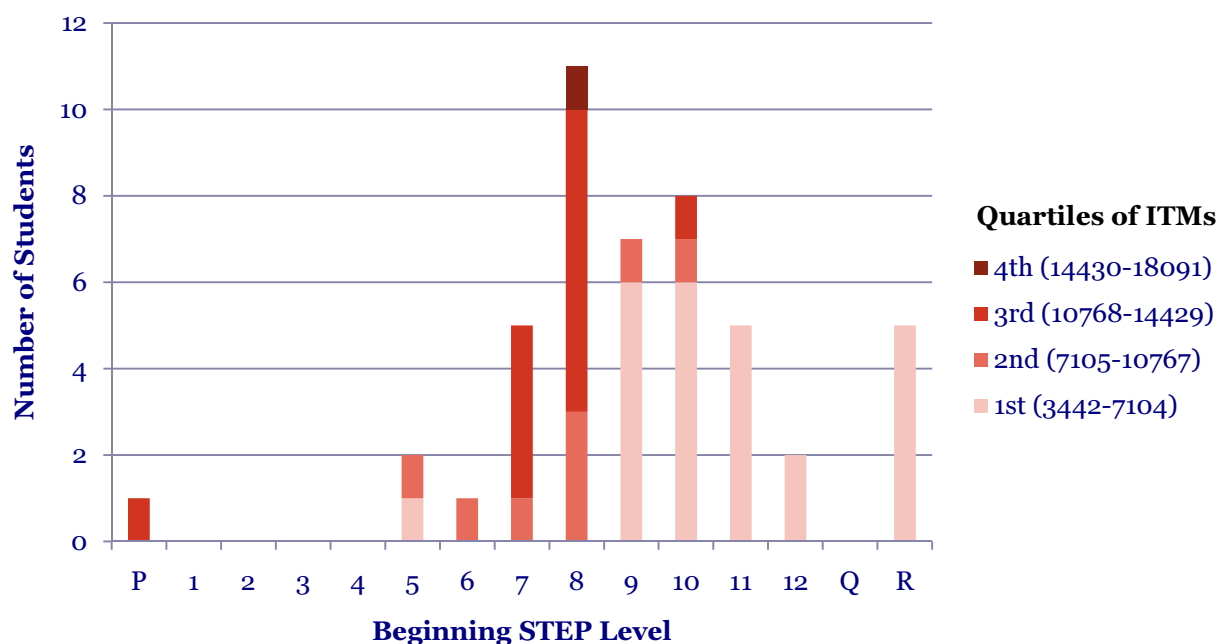
However, 64 percent of all students were not reading at grade level at the beginning of the school year, with a dramatic drop-off of on-grade level reading occurring between the first and second grade classes as shown in Figure 8.

Figure 8. Percent of Students at or above Benchmark STEP/Lesley Level in Each Grade at the Beginning of the 2009-2010 School Year



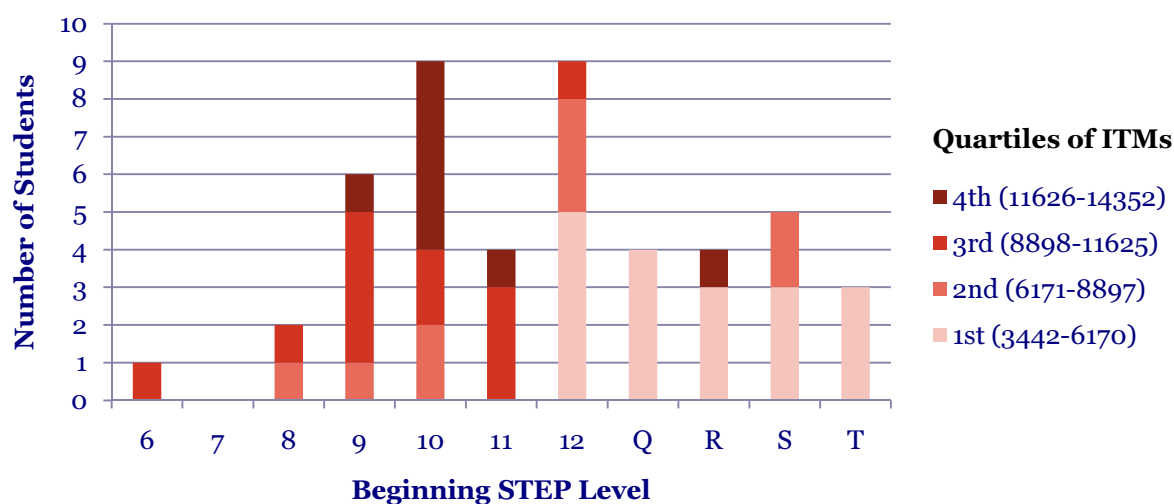
In line with the goal of providing extended learning supports especially to low-performing students, the school leadership team hypothesized that students performing below grade level for reading would also be the students with higher values of ITMs received during the school year. Figures 9–11 display the results of this inquiry into the relationship between STEP level at the beginning of the year and the ITMs that students received for students in grades 3–5. The ITMs are divided into quartiles by grade, such that the fourth quartile (darkest blue) represents the greatest intensity of teacher minutes received during the school year. Figure 9 shows that students who started the year below benchmark (below level 9 for third grade) had higher ITMs than students who were above benchmark at the beginning of the year.

Figure 9. Third-Grade Students Reading Below the Level 9 Benchmark Received Higher ITMs.



Similarly, Figure 10 shows that students reading below the fourth-grade benchmark of 12 received higher ITMs during the course of the school year.

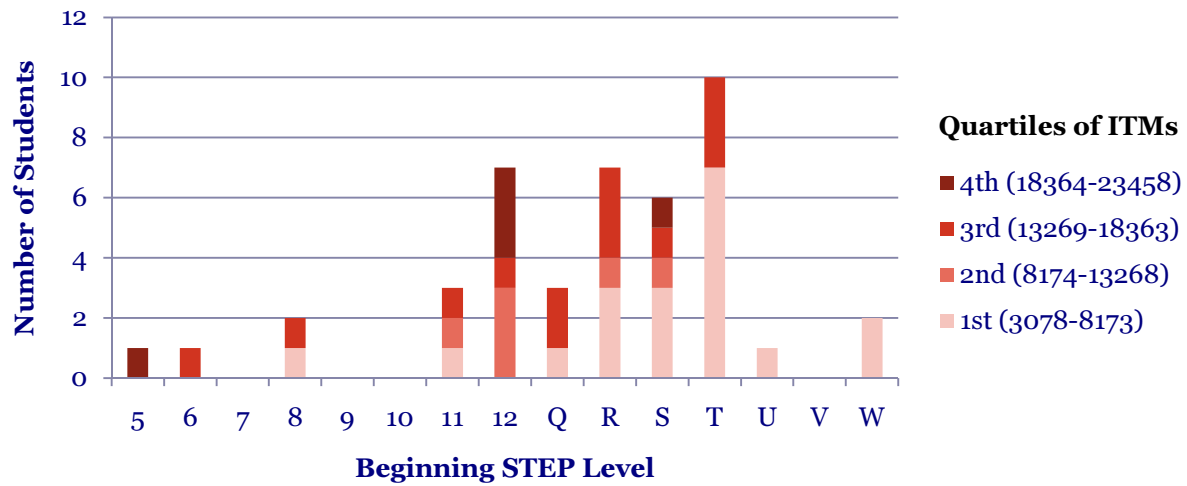
Figure 10. Fourth-Grade Students Reading Below the Level 12 Benchmark Received Higher ITMs.



Finally, the pattern is similar for students in grade 5 as shown in Figure 11. All but one student receiving the highest values of ITM are below the fifth grade benchmark of level S. In all three grades displayed here, students who are above the benchmark also participate in additional programs, reflecting the fact that programs had both academic and social-emotional development foci. Although academic and social-

emotional development are both important and influence each other, the analyses presented here are limited only to academic outcomes.

Figure 11. Fifth-Grade Students Reading Below the Level S Benchmark Received Higher ITMs.



Summary

The purpose of this study was to examine the participation of students in extended day programming at Donoghue during the 2009–2010 school year and explore whether participation was related to academic performance and improvement. Using the available written records, we found that 85 percent of all students were involved in extended day programming at Donoghue during the 2009–2010 school year with students participating in a range of 0–7 programs. We used the ITM (Intensity of Teacher Minutes) unit to show the different levels of teacher attention that students received as a proxy for the amount of program participation during the school year. Students in fifth grade had the highest average ITMs, followed by fourth graders and third graders, likely due to the fact that the most programs were available for fifth graders, followed by fourth graders and then third graders. Pre-K, Kindergarten, first, and second graders had fewer program options and lower ITMs. (Again, enrollment records for the Early Bird program for students in grades Pre-K, K, and 1 were incomplete and therefore could not be included. Results reported for these students are likely lower than their actual participation during the 2009–2010 school year.)

Second, we showed that the majority of students who received the highest amounts of ITMs were also those students who were not reading at grade level as measured by the STEP assessment at the beginning of the school year. This was in line with one of the primary goals of the extending learning program at Donoghue and what staff hypothesized would be true. The data currently highlights the fact that students who are struggling academically do receive additional supports in very individualized ways—more than 100 different combinations. Given this assortment of programming combinations, it is clear that students do not receive any kind of “packaged approach” to extended learning time.

Limitations

We developed the ITM as a quantitative measure of the enhancement of students' learning opportunities that takes into consideration both the time spent at school and the teacher-student ratio during that time. As such, it is an improvement over measures that simply count the amount of time students spend in extended learning time. However, it is still an imperfect measure. One way that the ITM measure could be improved as a proxy for the intensity of student learning time is to include student attendance, rather than merely considering just program enrollment. During the 2009–2010 school year, there was no easy system in place to help Donoghue staff keep accurate and consistent attendance data for students in extended-day programming. Therefore, in these analyses, if a student was enrolled in a program, he or she was counted as having received the full year's dosage for that program, while in reality the child could have attended only a few sessions. The same is true for the regular school day—while the school does maintain full-day attendance records, this was not taken into account when calculating ITMs for the year because of the missing information about attendance for other programs. Furthermore, because this was a first effort at calculating a new measure of extended time, minutes were not subtracted for changing classes, for lunch, recess, or special events that occur throughout the school year where the teacher-student ratio may change. Keeping more detailed records of student attendance could help refine the ITM measure and improve future reporting and analyses.

Future Considerations

The biggest task associated with this research study was collecting the data on student enrollment and participation in programs. Creating a systematic enrollment, attendance, and reporting system for each program may help to centralize the process of collecting, organizing, and analyzing this data moving forward.

Furthermore, this study just begins to scratch the surface in terms of possibilities for future research. As additional programs are offered, the ITMs that students receive for the year will increase. If services are supposed to be targeted to students who are struggling, decision makers should consider whether providing more services to *all* students dilutes the intensity of services that *struggling* students need in order to catch up to their peers who are performing on grade level both academically and socially. It may be useful to explore whether all students receive a certain minimum number of programs or yearly ITMs and students who are struggling receive the rest of the supports in addition to the current enhanced programming. Deciding how many ITMs are appropriate for all students and how many additional ITMs should be dedicated to students in need (and what criteria will be used to determine need) warrants further consideration and research.

Future research using this ITM approach could separate out the socio-emotional programming ITMs from academic-focused ITMs when looking at academic outcomes. Similarly, nonacademic outcomes could be considered as possible indicators of programmatic success. Additional research that explores how students are identified for interventions and how well the intervention is implemented—in terms of services offered as well as student attendance (services received)—will also provide more information about how much each student’s learning experience is being enhanced. Finally, school administrators indicated to the research team that for some students, maintaining progress instead of falling farther behind, is viewed as a success. Capturing this maintenance of performance—when similar students would

fall behind—as a successful intermediate outcome (though not the ultimate outcome of improved academic and social development) remains a challenge using these methods.

Conclusion

Donoghue demonstrates each of the five common traits of successful extended learning time programs identified by Farbman and Kaplan (2005). First, Donoghue is highly focused in its approach to adding more time. Next, academic data is used regularly to make decisions about grouping, supports, and intervention, but keeping detailed enrollment and attendance data for extended programming would be beneficial for tracking both the implementation of the interventions for students as well as the relationship between increasing the ITMs and student improvement. Third, similar to the schools reviewed by Farbman and Kaplan, Donoghue has added core academic time that allows teachers, tutors, and volunteers to individualize support for students and accelerate achievement. Similarly, Donoghue's schedule includes regular time for teachers to collaborate to strengthen instruction both during the school year and in the summer. Finally, Donoghue engages students in high-quality enrichment programs that build skills, interests, and self-confidence.

Because the Donoghue model does not just add more time to the school day, but rather reorganizes the schooling experience so that students receive individualized supports before school, during school, after school, on the weekends, and during the summer, this research used the Intensity of Teacher Minutes (ITM)—a measure that combines time with teacher-student ratio—to represent the individualized programming that students receive throughout the course of the school year and beyond.

As future research continues, possible indicators of success beyond improved academic learning could include the following: improved social development, broader opportunities for students, increased student demand to attend the school, higher teacher satisfaction, and stronger community partnerships.

References

Aronson, J., Zimmerman, J., & Carlos, L. 1999. *Improving student achievement by extending school: Is it just a matter of time?* San Francisco, CA: Office of Educational Research and Improvement. Retrieved from ERIC database. (ED435082).

Farbman, D. & Kaplan, C. (2005). Time for a change: The promise of extended-time schools for promoting student achievement. Boston: Massachusetts 2020. Retrieved from <http://www.mass2020.org/files/file/Time-for-a-change%281%29.pdf>.

Karweit, N. (1985). Should we lengthen the school term? *Educational Researcher*, 14(6): 9.

Pattall, E.A., Cooper, H. & Allen, A.B. (2005). Extending the school day or school year: A systematic review of research (1985-2009). *Review of Educational Research*, 80(3): 401-436.

Rocha, E. (2008). Expanded Learning Time in Action: Initiatives in High-Poverty and High-Minority Schools and Districts. Center for American Progress.

Silva, E. (2007). On the clock: Rethinking the way schools use time. *Education Sector*, 1-22. Retrieved from http://www.educationsector.org/usr_doc/OntheClock.pdf.

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