



Middle School Acceleration

YEAR 1 EVALUATION REPORT

ELMHURST COMMUNITY UNIT SCHOOL DISTRICT

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Executive Summary

In 2017-18, Elmhurst Community School District implemented a new program called “acceleration” in its middle schools. The middle school acceleration program is a change in schedules intended to provide dedicated time during the regular school day for extra academic support and opportunities for advancement and engagement. The acceleration period is a 30-minute session offered every day in each middle school. Students in need of additional support in mathematics and reading receive targeted instruction during the acceleration period. Students needing the most support in reading -- tier 3 students -- receive that support during their world language block rather than during acceleration time. Students not participating in interventions during acceleration time take part in enrichment programming on topics such as career and college readiness, coding, mindfulness, strategy games, and many others. In 2017-18, each acceleration enrichment session or “unit” was 3 weeks long. Math intervention was originally designed as a 6-week long period, after which students would exit to a 3-week enrichment session and re-enter intervention if they did not meet designated exit criteria. Reading interventions were generally designed as ongoing (i.e., students would exit only after meeting designated exit criteria), though ultimately students in each school did end up exiting to take part in enrichment sessions as well.

Both the intervention and enrichment components of acceleration have an associated theory of action which details the necessary resources, activities, and expected outcomes for that component. The acceleration evaluation focuses on the extent to which the resources were available and activities were implemented as planned (implementation), and expected results were achieved (outcomes). It is important to note that because this was the first year of acceleration implementation, some adjustments to the program were made during the year. As a result, information on outcomes may partly reflect those changes and adjustments. Key findings for year 1 of the program follow.

Key Findings

Enrichment Implementation and Outcomes

The theory of action for enrichment was as follows: if we create interesting and engaging enrichment units (based in part on student input), and if we allow students to indicate the units in which they would like to participate, and if we place students in enrichment units based as much as possible on their preferences, then: students will enjoy their enrichment courses, will interact with a broader range of their peers, and teachers will interact with a broader range of students. In the longer term, students will feel increased ownership over learning, learn about new areas of interest, feel more engaged with school, and teachers will feel satisfied with opportunities to teach their “passions” and a sense of ownership over curricula.

- **Did we create interesting and engaging enrichment units?** Student feedback about enrichment courses is generally quite positive. On average over the year, 75% of students reported having fun in their courses and being willing to recommend them to friends. Feedback from both staff and parents indicates some concern with the purpose and quality of some of the courses, as well as their “readiness” for implementation. Most staff also said that they felt courses were serving students “not very well” or “not well at all,” though it is unclear if this feedback relates more closely to enrichment or intervention.

- **Did we ask for and honor student preferences for courses?** Students were surveyed every three weeks about their preferences for enrichment courses and schools were generally able to give most students their first or second choice of course, though this varied across the year.
- **Do students enjoy their courses, interact with a broader range of peers, learn about new areas of interest, feel increased ownership over learning and feel more engaged in school?** As noted, on average 75% of students reported having fun and being willing to recommend courses to friends. Most students (an average of 69%) also agreed or strongly agreed with survey questions about learning new areas of interest. An average of 61% of students responded positively to questions about getting to know other students better. Slightly more than half of students (about 55%) reported high levels of engagement with their courses and school at the beginning of the year, and this percentage decreased over the year. Students were not asked specifically about their perceptions of ownership of their learning, though in second semester, some students did participate in designing enrichment courses.
- **Do teachers interact with a broader range of students, feel satisfied with opportunities to teach topics of interest, and feel increased sense of ownership over curriculum?** About 37% of staff felt that they had some or a great opportunity to teach topics of interest, while almost 70% reported having the opportunity to interact with a broader range of students.

Intervention Implementation and Outcomes

The theory of action for intervention is as follows: if we appropriately identify students for intervention and if teachers provide effective targeted instruction during intervention, then: students will feel more confident about their skills and knowledge, will feel supported, and will make academic progress. For math, an additional outcome is that students self-reported capacity in number sense and growth mindset will improve.

- **Did we appropriately identify students for intervention?** There were some cases of students identified for intervention who may not have met the criteria; however, a greater issue is that it appears more students could potentially have qualified for intervention based solely on test scores than were served (however, note that because the identification criteria include teacher input and classwork in addition to test scores, it is difficult to systematically assess eligibility). Further, in math, Churchville served both a larger (about twice the number) and lower-performing group of students on average than the other two middle schools.
- **Did we provide effective targeted instruction during intervention?** The content and structure of instruction varied by school and grade within school in both math and reading. For math, the focus of intervention instruction was narrowed after the first semester to exclude an element focused on growth mindset, and district leaders emphasized a focus on reading workshop for the reading intervention. Feedback from

many math teachers teaching intervention courses indicated a desire for more support around instruction and resources.

- **Do students feel more confident about their skills and knowledge, feel supported, and make academic progress?** An average of about 83% of reading intervention students report that what they learned in intervention will help them in other courses and that they feel more confident about reading, with slightly smaller percentages reported for math intervention. About 70% of students self-reported strong capacity and growth mindset in math. On average, students in reading intervention demonstrated growth on multiple measures, including the STAR reading assessment, Fountas & Pinnell assessment, and MAP. However, most students remained at least 1-2 grade levels behind expectations. Students in math intervention demonstrated academic growth on some measures but not others.

Implementation Overall

Staff were surveyed twice during the year about their impressions of implementation overall, encompassing both intervention and enrichment. Most staff rated implementation overall as fair or poor in both December and May. The most common theme about successful aspects of implementation from staff in both surveys related to the fact that students do have some choice, and can explore things that interest them and that they may not experience in their regular coursework. The second most commonly cited theme related to students having fun, time to relax, or to be in an ungraded environment during acceleration. A number of comments from staff also noted that they felt a successful aspect of implementation was the chance to get to know students in this kind of setting or to get to know different students. The most common challenge cited by respondents was the need to do additional planning work for both intervention and enrichment courses, even when materials were available (e.g. for enrichment courses that had already been designed and posted). The other most common challenge relates to organization and logistics, and particularly around scheduling and tracking students.

Introduction

In 2017-18, Elmhurst District 205 began implementation of an “acceleration period” for all students in grades one through eight in the district. The acceleration period is intended to provide dedicated time during the regular school day for remediation for students in need of additional support and opportunities for advancement and engagement in enrichment programming for other students. As part of an effort to increase analysis of new and existing programs, the district conducted an evaluation focused on acceleration at the middle school level intended to provide information to improve implementation and assess the impact of the acceleration period on student and other intended outcomes. Both the intervention and enrichment components of acceleration have an associated theory of action which details the necessary resources, activities, and expected outcomes for that component. The acceleration evaluation focused on the extent to which the resources were available and activities were implemented as planned (implementation), and expected results were achieved (outcomes). Specific evaluation questions related to implementation and outcomes follow. This document summarizes information from the first year of acceleration implementation, building from an interim report from January 2018. It is important to note that because this was the first year of acceleration implementation, some adjustments to the program were made during the year. As a result, information on outcomes may partly reflect those changes and adjustments.

Evaluation Questions

Implementation

- To what extent is the acceleration period being implemented as intended? Are students entering and exiting enrichment and intervention according to established criteria? Are students for enrichment placed in their preferred courses? How large are the intervention courses? How often are students missing enrichment or intervention?
 - How does implementation vary across schools?
- What are the strengths and areas of improvement in implementation in terms of placement, tracking, instruction, monitoring, or other?

Outcomes

- Enrichment:
 - Do students report enjoying their enrichment courses and interacting with a broader range of peers in those courses? Do students feel an increased sense of ownership over their learning, learn about new areas of interest, feel more engaged in school?
 - Do teachers report interacting with a broader range of students? Do teachers feel satisfied with opportunities to teach areas of interest?
 - How do these outcomes vary by school, by beginning engagement levels, and by the amount of time spent in enrichment?
- Intervention:

- Do students who are identified for interventions feel more confident about their skills and knowledge? Do they feel supported by interventions?
- Do students make academic progress and exit interventions? Does the achievement gap between intervention and non-intervention students narrow over the year?
 - Do these outcomes vary by school, by subject, by tier of intervention or starting academic levels, by length of time in intervention?

Table A.1 in Appendix A maps these evaluation questions to data sources and a data collection timeline.

Program Description

The acceleration period is a 30-minute session offered every day in each middle school. The acceleration “program” consists of two distinct elements: enrichment and intervention. Students in need of additional support in mathematics and reading receive targeted instruction during the acceleration period (students needing the most support in reading (tier 3 students) receive that support during their world language block rather than during acceleration). Other students participate in enrichment programming designed by teachers and based in part on a survey of student interests conducted at the end of the 2016-17 school year. Students with a short-term academic need may also be pulled out of their enrichment class at a classroom teacher’s discretion (e.g. if a science teacher determines that one or more students need some re-teaching based on results of a particular assignment).

Acceleration programming began on September 6. During the first session, two of the three middle schools (Bryan and Sandburg) began with a 3-week enrichment session for all students, during which time students were surveyed about their choices for future enrichment sessions and initial testing and identification of students in need of additional support took place. Churchville began interventions for some students during the first round of acceleration. Figure 1 provides an example timeline of acceleration programming during the fall.

Figure 1. Sample Timeline of Acceleration Programming

		Round1	Round2	Round3	Round4	Round5	
	Weeks 1-2	Weeks 3-5	Weeks 6-8	Weeks 9-11	Weeks 12-14	Weeks 14-16	Winter Break
Student Group	8/16-9/1	9/5-9/22	9/25-10/13	10-16-11/3	11/6-12-1	12/4-12/22	12/25-1/5
Days in Session	13	14	14	14	17^	15	
Tier 1		*					
Tier 2/3 Math		*			*		
Tier 2 Reading		*					
					^11/20, 11/21 business days		

Enrichment	
Intervention	
Other	
Student Identification/Evaluation	*

Enrichment

The content of the enrichment programming included topics such as career and college readiness, coding, mindfulness, strategy games, and many other topics. Each enrichment session or “unit” was 3 weeks long, meaning that students participated in 7.5 hours of programming for each topic. Most units were teacher-developed, though in second semester students participated in development of some units as well. Some units were “district-level” units, meaning they were approved and available with documentation for use in any school, though they could still be modified or changed by individual teachers. Other units were developed for use only at a particular school, meaning teachers did not have to complete the same level of documentation so that other teachers could re-use the course (nor did they receive payment for developing the course). As a result of the way units were developed and implemented, enrichment programming varied between schools.

Intervention

Reading intervention classes were taught by reading specialists. The content of acceleration period intervention programming for reading was intended to reflect core instructional strategies such as guided reading, but with a smaller number of students (8-10 students). Each reading specialist, however, determined exactly what instructional materials and strategies to use in the intervention. As a result, the reading intervention varied across grades within schools and across schools. One school also offered a writing intervention in place of a reading intervention for one intervention session.

Math intervention courses were taught by math teachers. The content of acceleration period intervention programming for math was originally intended to focus on strengthening student skills in number sense, building a growth mindset, and addressing individualized needs. The Khan Academy program was intended to be used to support this work, particularly with respect to growth mindset and individualized skill needs. As with reading, the acceleration period classes were intended to include 8-10 students. The math intervention planning group developed a set of daily lesson plans with links to relevant materials and directions for teachers to use during the intervention period.

Each intervention session for math was 6 weeks long, meaning that students participated in 15 hours of additional instruction in math during each session. After that 6-week period, students exited for an enrichment session and could re-enter a math intervention depending on their performance on multiple criteria. New students could also enter at that time.

Length of reading intervention sessions varied somewhat by school. At one school, it was originally planned that students would participate for 6 weeks and then exit for enrichment

(similar to the math intervention), re-entering unless exit criteria were met. At the two other schools, reading intervention was initially planned as a continuous session, with students exiting only when they met exit criteria. Ultimately, students at all schools exited to a 3-week enrichment session at some point during intervention. Students would then re-enter the intervention and continue until they meet exit criteria.

Students were identified for participation in interventions based on several sources of information (see Table 1). Students who qualified for interventions in both math and reading were placed in an intervention based on the school’s judgement of their area of greatest need.

Table 1. Initial Student Identification and Exit Criteria¹

<i>Student need for support</i>	Math		Reading	
	<i>Identification criteria</i>	<i>Exit criteria</i>	<i>Identification criteria</i>	<i>Exit criteria</i>
Tier 3 (Most need)	MAP math 25th percentile or below Classroom data Teacher input M-COMP benchmark	Class performance, M-COMP, and/or MAP	MAP reading 30th percentile or below Classroom data Teacher input STAR benchmark	STAR progress, classroom data, specialist recommendation
Tier 2 (Some need)	MAP math 26th-35th percentile Classroom data Teacher input M-COMP benchmark	Class performance, M-COMP, and/or MAP	MAP reading 31st-40th percentile Classroom data Teacher input STAR benchmark	50th percentile on MAP, STAR progress, classroom data, specialist recommendation
Tier 1 (Responsive classroom instruction)	MAP math 36th percentile or above		MAP math 40th percentile or above	

Implementation and Outcomes

To address evaluation questions, data from a number of different data sources was collected, including student assignment data from each grade level team at each school, test scores (MAP, STAR, Fountas & Pinnell, Eureka common assessments), information on student preferences for courses from student surveys, and survey feedback from middle school staff, students, and parents.

Enrichment Implementation & Outcomes

¹ After December, revisions to both math and reading criteria were made as a result of initial feedback and evaluation information.

The theory of action for enrichment is as follows: if we create interesting and engaging enrichment units (based in part on student input), and if we allow students to indicate the units in which they would like to participate, and if we place students in enrichment units based as much as possible on their preferences, then: students will enjoy their enrichment courses, will interact with a broader range of their peers, and teachers will interact with a broader range of students. In the longer term, students will feel increased ownership over learning, learn about new areas of interest, feel more engaged with school, and teachers will feel satisfied with opportunities to teach their “passions” and a sense of ownership over curricula. These desired outcomes were developed collaboratively with building leaders, team leaders, and district leaders in July of 2017. The following sections discuss the extent to which these activities were implemented as planned and expected outcomes achieved. Again, it is important to note that because this was the first year of acceleration implementation, some adjustments to the program were made during the year and information on outcomes may partly reflect changes and adjustments.

Enrichment Implementation

During the first half of the school year (through December), a variety of enrichment courses were offered. In general, most students are quite positive about the courses, reporting that they had fun and would recommend their courses to their friends. More detail on student feedback follows in a later section. Initial feedback from both staff and parents indicated some concern with the purpose and quality of the courses, as well as their “readiness” for implementation. For example, a number of staff survey respondents noted that they felt the purpose of enrichment courses was unclear or had changed (fun? engagement? rigor? relevance?) and sought more communication about purpose and other matters related to acceleration. A number of respondents noted that it seemed unclear what the criteria for enrichment course approval was or that it seemed to be changing. Additionally, staff respondents noted the need for more courses and more detailed plans for the courses (some suggested purchasing content or investing more time and money in having teachers develop these); some also suggested tighter links to the curriculum.

Of the approximately 14 percent of parents who responded to a survey about acceleration time in winter, their feedback parallels staff feedback in that they expressed concern about the quality of some enrichment courses and the loss of core instructional and study hall time (while at the same time some acknowledged that their students were enjoying the courses).

Another intended aspect of enrichment was to allow for student choice in selecting courses. To accomplish this objective, students were surveyed every 3 weeks and their preferences were taken into account in assigning them into enrichment courses. In general, schools were able to meet most student preferences, though this varied somewhat across the year. For example, in round 1, across schools, about 68 percent of students were assigned to their first choice of enrichment course, 19 percent to their second choice, and about 10 percent to their third choice. Table 2 shows the courses that students reported as their favorites overall on an end-of-year survey (with approximately 1550 respondents representing about 80 percent of students).

Table 2. Most Popular Enrichment Courses

Course	Number of Mentions
Board Games	170
Stress Busters	76

Crafty Kids	56
Sign Language	51
STEM	42
Lexicon Laughs	35
Mystery	34
Creative Writing	31
Cursed Cursive	30
At the Movies	30
Horror	29
Stock Market	25
March Madness	25
Read Around the World	22
Show Me The Money	20

Because of differences in student preferences, enrichment courses varied in size. As an example, in round 1 courses ranged from 5 to 50 students with a median size of 22.

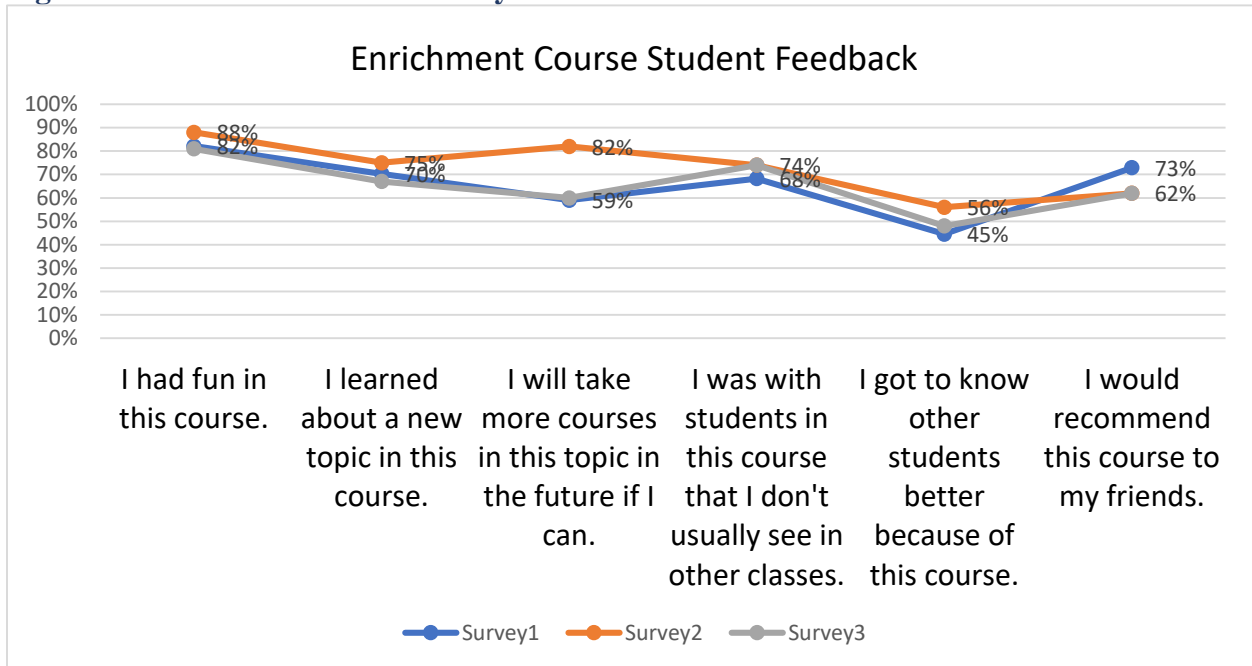
Acceleration time was also intended to allow students in enrichment courses a time in the school day to get extra support, though this is not explicit in the theory of action. By the end of the year, all schools were implementing a “floater” system in which one teacher was free during acceleration to cover enrichment courses for teachers who needed to meet with students to re-teach or provide other support. The frequency of such re-teaching or pullouts is occurring is unknown, due to limitations in how data were tracked.

Enrichment Outcomes

Intended shorter-term outcomes of enrichment relate to student enjoyment of their enrichment courses and teacher and student interaction with a broader range of students. Figure 2 shows student feedback over time (students were surveyed in September, December, and May). On average, 75% of students reported having fun and being willing to recommend courses to friends.

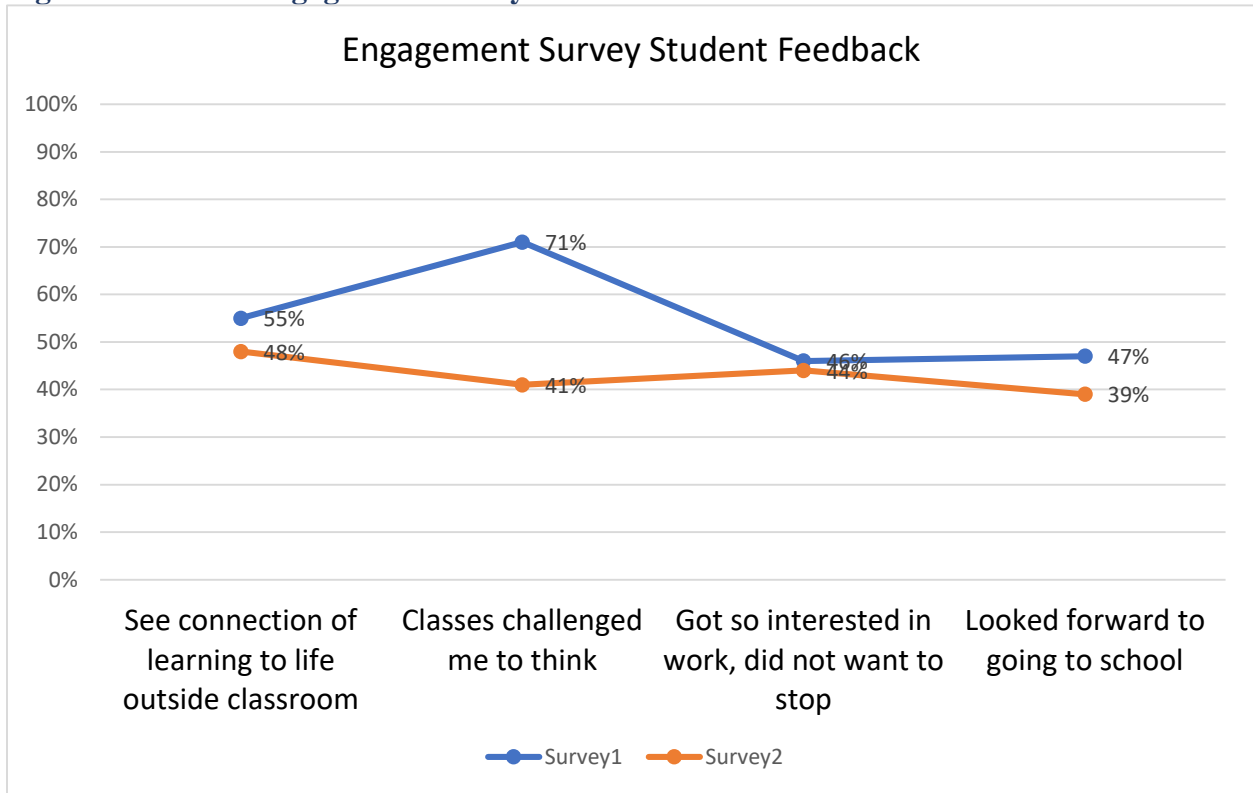
An average of 69% of students agreed or strongly agreed with enrichment survey questions about learning new areas of interest, and an average of 61% of students responded positively to questions about getting to know other students better.

Figure 2. Enrichment Course Survey Student Feedback



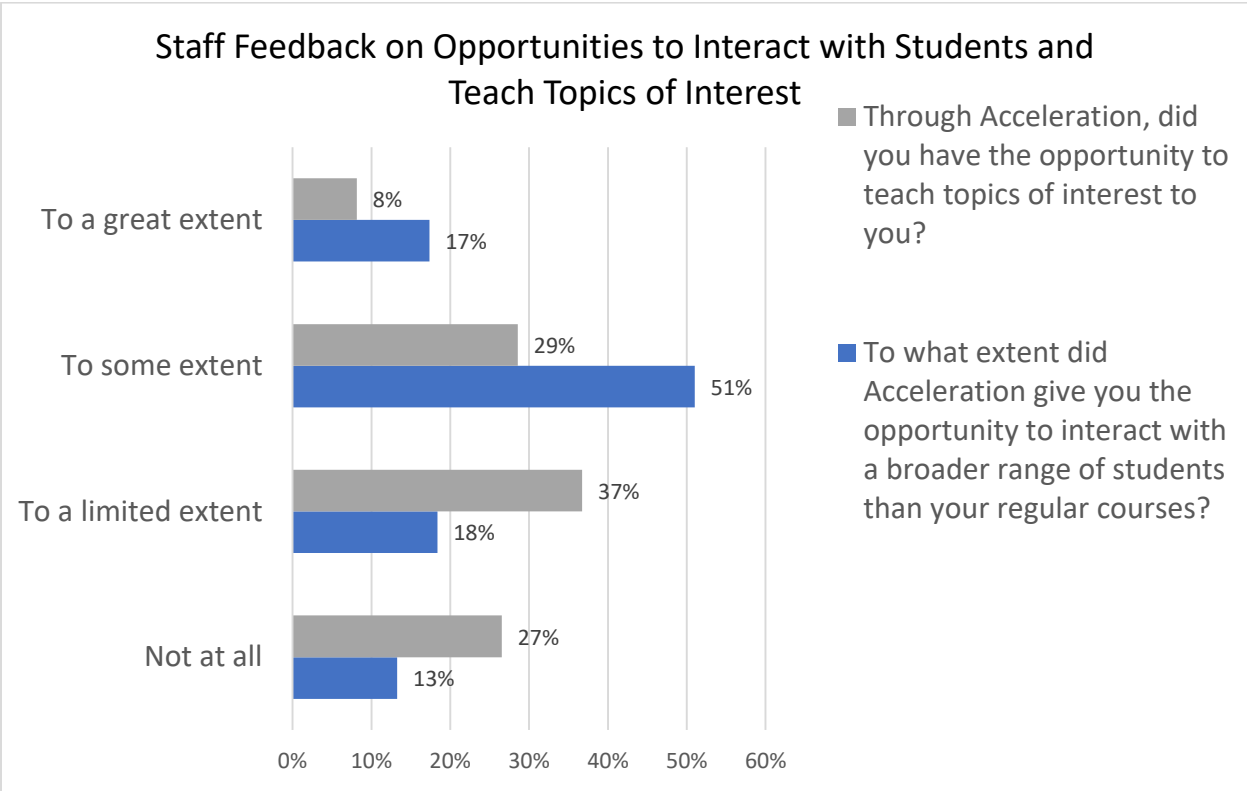
Intended end-of-year outcomes were that acceleration might help students feel more engaged with school. Students were surveyed at the beginning and end of the year about how well they felt their schoolwork challenged and interested them, connected to life outside the classroom, and how much they looked forward to going to school. Figure 3 shows that overall, slightly more than half of students (55%) reported high levels of engagement with their courses and school at the beginning of the year, and this percentage decreased over the year. Students were not asked specifically about their perceptions of ownership of their learning, though in second semester, some students did participate in designing enrichment courses.

Figure 3. Student Engagement Survey Feedback



With respect to staff outcomes related to enrichment, it was intended that staff would feel that they had the opportunity to get to know more students and to teach topics of interest. About 37% of staff felt that they had some or a great opportunity to teach topics of interest, while almost 70% reported having the opportunity to interact with a broader range of students (Figure 4).

Figure 4. Staff Feedback on Enrichment Opportunities



Intervention Implementation & Outcomes

Intervention courses were broadly intended to improve student academic outcomes, with the idea that if students are appropriately identified for intervention and if teachers provide effective targeted instruction during acceleration, then students will feel supported and more confident about their skills and knowledge and will make academic progress.

Intervention Implementation

Table 3 shows that 99 students (approximately 5% of middle school students) participated in tier 2 reading intervention during acceleration time over the course of the year. 161 students in total (about 8% of middle school students) participated in reading intervention either during acceleration time or their world language block as part of a reading strategies course. Note that because students entered and exited throughout the year, the numbers of students participating in interventions at any given moment could differ from overall numbers.

Table 3. Reading Intervention Participation

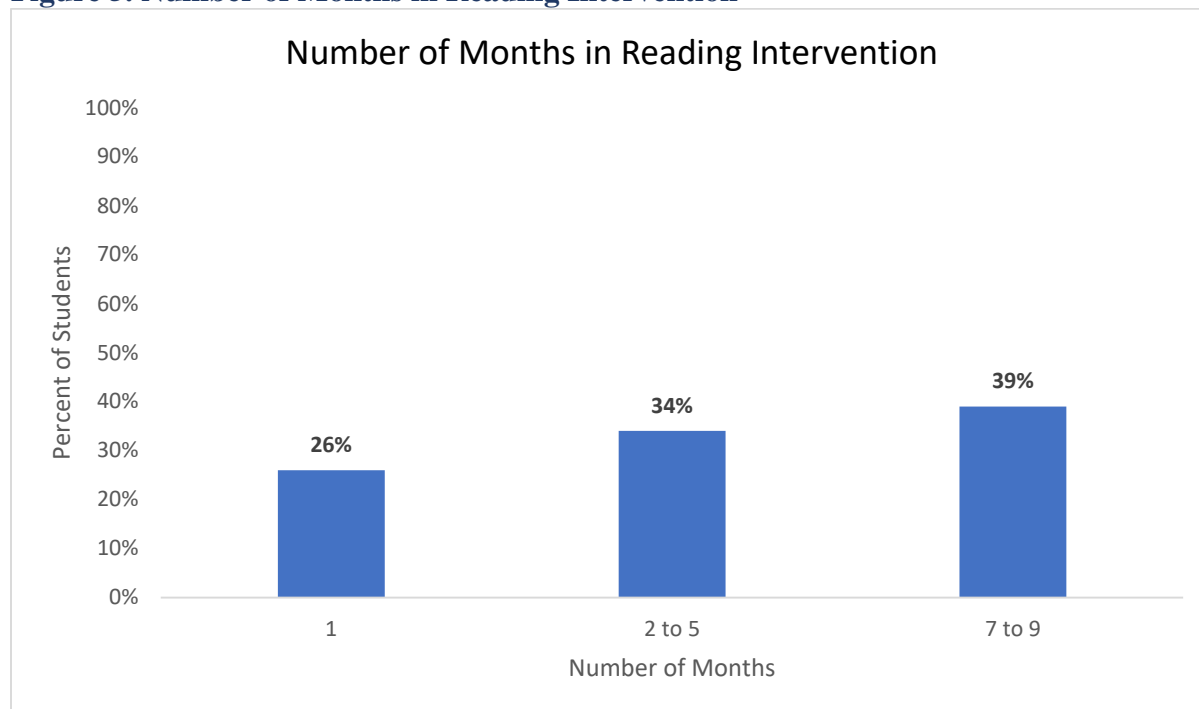
School	6	7	8	Total
Bryan	12	12	9	33
Churchville	18	10	16	44
Sandburg	10	12		22
Total	40	34	25	99

47 of these 99 students (about 48%) of these students exited the intervention during the year. Of those students who exited, the majority did not re-enter. Six students moved to tier 3

intervention, two moved to math intervention, at least one re-entered the acceleration intervention, and several others left their schools.

As shown in Figure 5, over a third of students in reading intervention during acceleration spent the majority of their acceleration time in that intervention, with about another one-third spending several sessions in reading intervention, and about a quarter spending just about one session (many of these students were initially identified in September and quickly exited).

Figure 5. Number of Months in Reading Intervention



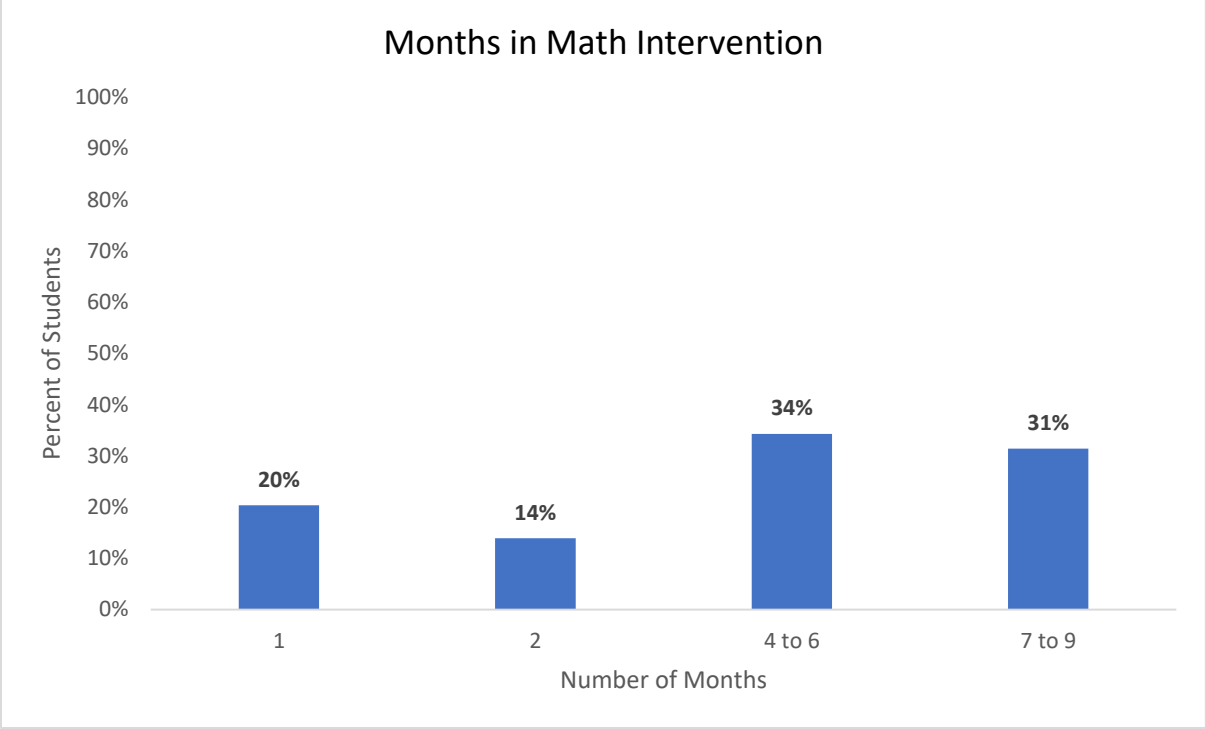
172 students (almost 9% of middle school students) participated in math interventions, with about 66 (about 38%) exiting the intervention during the year. Half of the students enrolled in math intervention at Bryan and Sandburg exited; only about one-quarter of those in math intervention at Churchville exited. At least 15 of the 66 students who exited (nearly one-quarter) re-entered at some point.

Table 4. Math Intervention Participation

School	6	7	8	Total
Bryan	23	17		40
Churchville	43	15	27	85
Sandburg	16	18	13	47
Total	82	50	40	172

As compared to the reading intervention, students tended to spend somewhat less time in math intervention. As shown in Figure 6, about one-third of students spent the majority of their acceleration time in math intervention, with about another one-third spending several sessions in math intervention, and the final third spending only one or two sessions in math intervention.

Figure 6. Number of Months in Math Intervention



With respect to identification of students for reading intervention in the fall, as shown in Table 5, both Bryan and Churchville had some students who did not meet the MAP entrance criteria (note, however, that other data such as teacher input was also a factor) but who were in the acceleration intervention. All three schools had more students who could have qualified for an intervention based on fall MAP scores alone than who were in the acceleration intervention (Table 6). Based on fall MAP scores alone, and considering both the acceleration and tier 3 reading strategies interventions, it is estimated that about two-thirds to three-quarters of students in need received some type of reading intervention. Other students may have also received support through regular classroom instruction, or for students with IEPs, through other means.

Table 5. Fall MAP Entrance Criteria and Reading Intervention Participation

School/Met Fall MAP criteria	In Intervention	Total
Bryan	25	25
No	15	15
Yes	10	10
Churchville	32	32
No	8	8
Yes	25	25
Sandburg	19	19
Yes	19	19
Total	77	77

Table 6. Fall MAP Scores and Reading Intervention Criteria

School	Met Fall MAP criteria	Total
Bryan	46	46

Churchville	121	121
Sandburg	86	86
Total	253	253

Because of concerns about clarity of identification and exit criteria among staff after first semester, the original criteria were discussed among school and district staff and changes made to clarify the criteria. Based on winter MAP data alone, 103 students could have qualified for reading intervention during acceleration; 63 participated for some period of time during second semester. Of the 63 who participated, their winter MAP reading percentile scores ranged from 7 to 70 (with the criteria set between 26 and 39, such that some students were likely placed in intervention who did not meet the MAP criteria alone). Again, however, placement was intended to be based on teacher input, STAR data (if available), and classroom assessments.

With respect to appropriate identification of students for math intervention, a few students at each school were placed in math interventions who did not meet the fall MAP entrance criteria (note, however, that other data such as teacher input was also a factor). However, the more significant discrepancy was between the numbers of students who met fall MAP criteria and were served in math interventions, as shown in Table 7. In addition to the larger number of eligible and served students, Churchville’s students also demonstrated lower average performance – the vast majority of the students served fall into tier 3, with scores below the 25th percentile, while Sandburg and Bryan students in intervention tended to fall above the 25th percentile.

Table 7. Grade 8 Fall MAP Scores and Math Intervention Participation

School	Number Served	Number Eligible	Percent of Eligible Students Based on Fall MAP Only Served in Fall
Bryan	19	46	41%
Churchville	64	165	39%
Sandburg	35	64	55%

As with reading, interim data and feedback from teachers resulted in additional discussion of entrance and exit criteria in the winter. No significant changes were made to identification criteria; discussion of exit and progress monitoring changes follows. As in the fall, a few students who took part in math intervention in second semester had winter MAP scores above the stated criteria (though again, these criteria go beyond just MAP) and more students were potentially eligible than participated in the math intervention during acceleration.

In terms of the intended implementation of instruction during interventions, acceleration committee members and intervention teachers (reading specialists and math teachers) provided feedback in various meetings and through the staff survey about current practice and challenges (see, for example: [math intervention questions](#) and [reading intervention questions and notes](#)).

In reading, feedback during first semester suggested that intervention varied across grades within and across schools. For example, one school utilized novels and shorter texts, while another focused largely on shorter texts. Within one school, one grade level focused on writing and close reading while other grade levels focused on various reading skills in a workshop approach. With respect to content, some intervention courses focused more on “pre” or “re-” teaching core ELA learning targets, while others focused on skills (however, what skills students need work on was

often determined using different tools/measures). Reading interventions also differed somewhat in terms of participants, with some including students with IEPs and EL students, and others not. In December, a request was made of reading specialists to utilize guided reading materials that had been purchased for schools to increase the consistency of instruction.

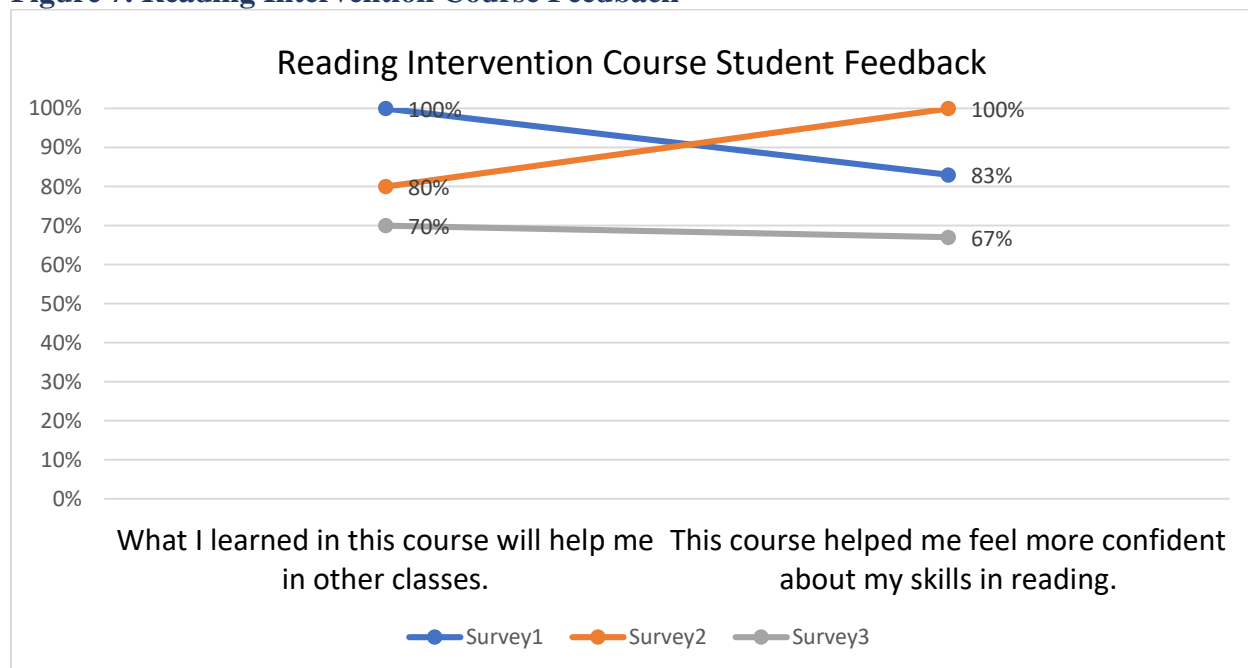
As with reading, there was variability in the instruction in math intervention provided in different grades and schools. In math, a number of teachers expressed concern with the use of Khan Academy (student disinterest, difficulty using the system) and some piloted alternative systems. In addition, some teachers brought in resources beyond those identified in lesson plans and reported different approaches to identifying individualized student needs. After the interim report, the part of the intervention focused on growth mindset was changed to a supplemental aspect, leaving the components related to personalized skill practice and building number sense skills to share equal time. Further, teachers were explicitly offered the opportunity to use tools other than Khan Academy and to report back on their utility.

Intervention Outcomes

Intended outcomes of intervention were that students would feel supported and more confident about their skills and knowledge and would make academic progress.

Students were asked at three points during the year to provide feedback on their intervention courses. Figure 7 shows that an average of 83% of students reported that their reading courses had helped them feel more confident about reading and would help them in other courses.

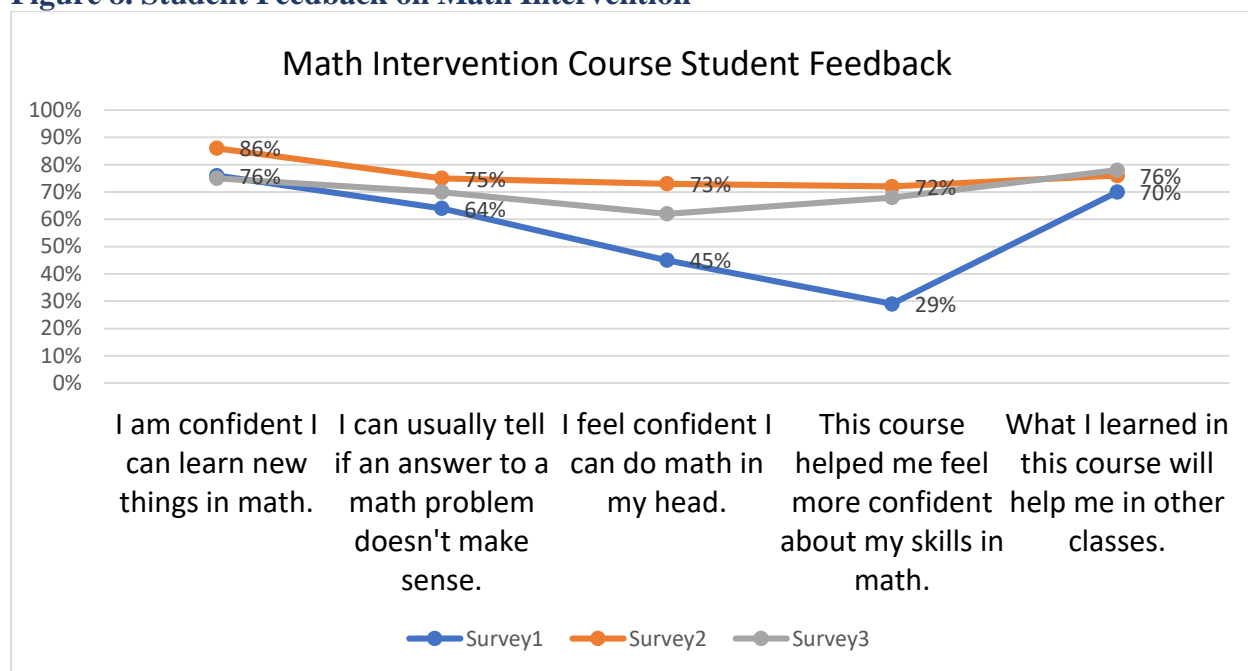
Figure 7. Reading Intervention Course Feedback



As shown in Figure 8, an average of about 66% percent of students responded positively about whether or not their math intervention course had helped them feel more confident about math and would help them in other courses. For math, another intended outcome was that students' self-reported capacity in number sense and growth mindset would improve. On average, the

proportions of students reporting positively about their capacity in number sense and growth mindset did increase between the first and last surveys, but because of changes in wording in the survey, comparisons between the second and last surveys may be more accurate. This comparison shows a slight decline on average between the second and third surveys. However, because of changes in students participating in math intervention over time, it is difficult to interpret changes. It is notable that an overall average of about 70% reported that they were somewhat or very confident about their ability to learn new things in math, know if a problem's answer doesn't make sense, or do math in their heads, though ideally comparison group data would be available. On all surveys, it is also interesting to note that consistently fewer students felt confident about their ability to do math in their heads.

Figure 8. Student Feedback on Math Intervention



For reading, the tool initially selected to monitor student academic progress was the STAR reading assessment. In addition, the evaluation plan called for review of changes in MAP scores and exiting from intervention. Information using STAR and MAP data is summarized here, though it is important to note that students took MAP only in fall and winter (and so data reflects only students who participated in intervention during that time).

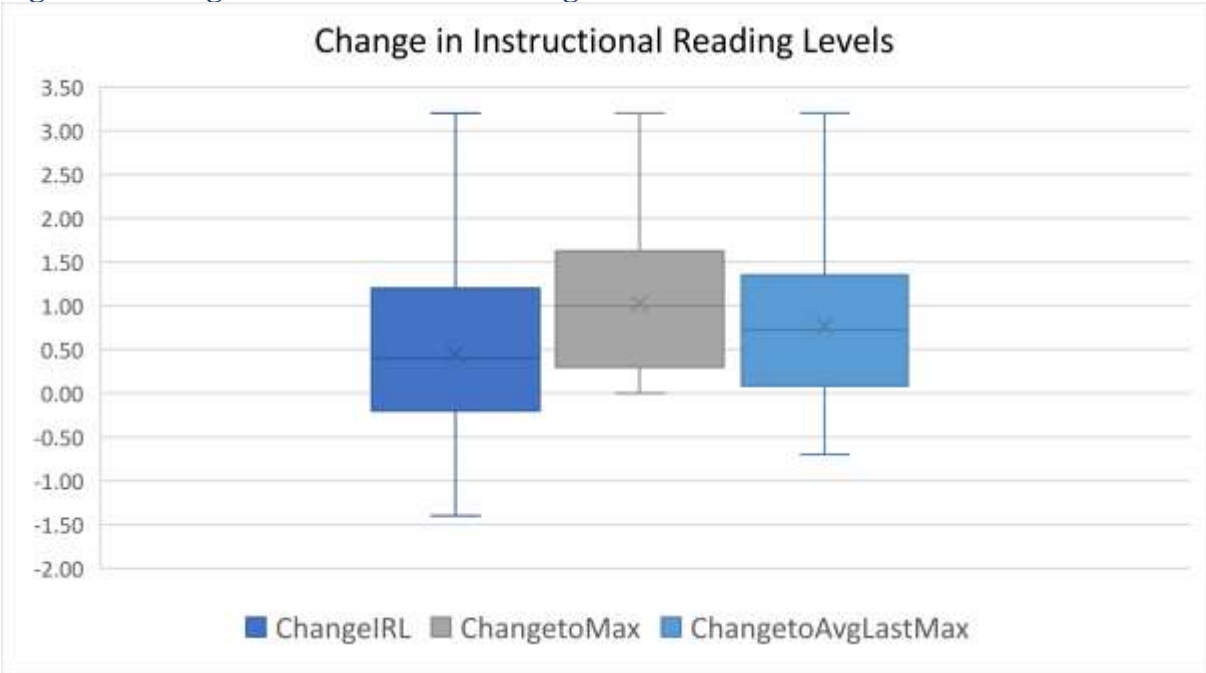
In early discussions, a target of at least 1 instructional reading level (IRL) of change on STAR for students was suggested. One challenge in the STAR data is that there can be significant variability in student scores at different administrations. Table 8 shows average changes in IRL from first score to last score, first to maximum score, and first to an average of last and maximum score (including students in acceleration and reading strategies interventions; the values are virtually identical for each intervention group separately). Perhaps the best indicator of progress is the average of first to an average of last and maximum scores – across schools, students grew an average of about three-quarters of an instructional reading level.

Table 8. Changes in Instructional Reading Levels (STAR Reading Assessment)

School and Grade	Number of Students	Average Change from First to Last Score	Average Change from First to Maximum Score	Average Change from First to Last/Max Average
Bryan	39	0.56	1.16	0.86
	15	0.31	0.96	0.64
	16	0.84	1.51	1.18
	8	0.48	0.84	0.66
Churchville	69	0.34	0.90	0.68
	33	0.31	1.03	0.67
	19	0.53	0.89	0.81
	17	0.17	0.66	0.57
Sandburg	36	0.55	1.11	0.83
	17	0.64	1.21	0.92
	19	0.48	1.03	0.75
Total	144	0.45	1.02	0.77

Figure 9 simply plots these data to show the variability in student performance in each of these averages. While on average students grew about three-quarters of an instructional reading level, the top quartile grew at least 1.4 levels and the bottom quartile showed almost no growth.

Figure 9. Change in Instructional Reading Levels



Even with this growth, about 75% of student STAR scores indicate they are at least 1 grade level behind their actual grade level. On average, students were about 1.8 grade levels behind their actual grade level.

Table 8 shows that on average across grades and schools, about 61% percent of students in reading intervention during acceleration met their expected growth targets (as defined by MAP). As noted previously, about 48% of students exited acceleration time reading intervention at some

time during their enrollment, suggesting that either teachers felt they had made adequate progress.

Table 9. Percent of Students in Intervention Meeting Expected Growth on MAP Reading

School and Grade	Met Winter Growth
Bryan	67%
6	67%
7	56%
8	78%
Churchville	58%
6	77%
7	60%
8	38%
Sandburg	60%
6	75%
7	50%
Total	61%

Because of some concerns about variability in STAR data as well as to promote consistency with elementary school measures, reading specialists were asked after winter break to additionally monitor student progress using the Fountas & Pinnell (F&P) benchmark assessment system. Data are not available for all students in reading intervention and the quality of the data will likely improve as reading specialists become more familiar with the test administration. However, where winter and spring scores were available, Table 10 shows the changes in F&P instructional reading levels. On average, students grew about 1.9 levels. Typically, students in Grades 6-8 are expected to grow 1 level in this time frame. As with STAR data, however, despite this growth, most students remain at least 2 grade levels behind their grade level expectations.

Table 10. Changes in Fountas & Pinnell Reading Levels

School and Grade	Number of Students	Average Change in F&P Level
Bryan	8	2.5
6	6	2.2
7	2	3.5
8		
Churchville	20	2.0
6	5	1.6
7	6	3.8
8	9	1.0
Sandburg	13	1.4
6	5	1.2
7	8	1.5
Total	41	1.9

For math, the original tool selected to monitor student progress was the AIMswEB M-COMP. In addition, the evaluation plan called for review of changes in MAP scores, exiting from intervention, Eureka math assessment performance, and changes in student mindset related to

math derived from student surveys. Information using M-COMP, MAP and Eureka math common assessments is summarized, though it is important to note that M-COMP data were not collected after winter because of concerns about its alignment to math intervention instruction.

No specific targets were initially set for progress on M-COMP, and indeed, there was discussion about whether or not this measure was well-aligned with the intervention such that it was decided to discontinue in second semester. M-COMP was administered in first semester at grades 6 and 7 at Bryan and all grades at Churchville. Table 11 shows that scores increased on average, meaning that students were computing more quickly and accurately, though there is variation in the extent of these changes.

Table 11. M-COMP Changes in Total Scores

School	Number of Students	Average Change	Min Change	Max Change
Bryan	28	11.1	-14	23
Churchville	94	0.9	-15	21
Total	122	3.3	-15	23

Table 12 shows that on average across grades and schools, 56 percent of students who participated in math intervention at some point during the fall met growth targets from fall to winter on MAP math (note that the length of participation in math intervention varied).

Table 12. Percent of Students Meeting Winter Growth Expectations on MAP Math

School and Grade	Met Winter Growth
Bryan	53%
6	45%
7	63%
Churchville	52%
6	63%
7	60%
8	28%
Sandburg	66%
6	69%
7	67%
8	62%
Total	56%

Table 13 shows changes in the goal area on the MAP that most closely relates to the intervention focus on number sense. Most students in the intervention began at a “Low” or “LowAvg” level (as defined by MAP). By winter, about half of students in intervention during at least some of that time period remained in the same level and about one-third moved up at least one level.

Table 13. Changes in MAP Number Sense Goal

Fall Number Sense	Winter Number Sense					Total
	Low	LoAvg	Avg	HiAvg	High	
Low	29	13	5	1		48
LoAvg	10	30	15	5		60

Avg	1	10	5	3	1	20
HiAvg			2	1		3
Total	40	53	27	10	1	131

Another measure of progress for students in math intervention relates to performance on common Eureka math classroom assessments. Because of differences in pacing and data entry practices for Eureka assessments, data from these assessments are not complete, but available data indicate the following:

- On Grade 6 module 1 and module 2 end-of-module assessments, on average students with similar starting MAP scores in interventions performed slightly better than students in intervention (note that this is based on a small sample of 35 students)
- On Grade 7 module 1 and module 2 end-of-module assessments, students with similar starting MAP scores to those in intervention performed better than students in intervention (n=64)
- On Grade 8 module 2, 3, and 4 end-of-module assessments, students with similar starting MAP scores to those in intervention performed better than students in intervention (n=31)

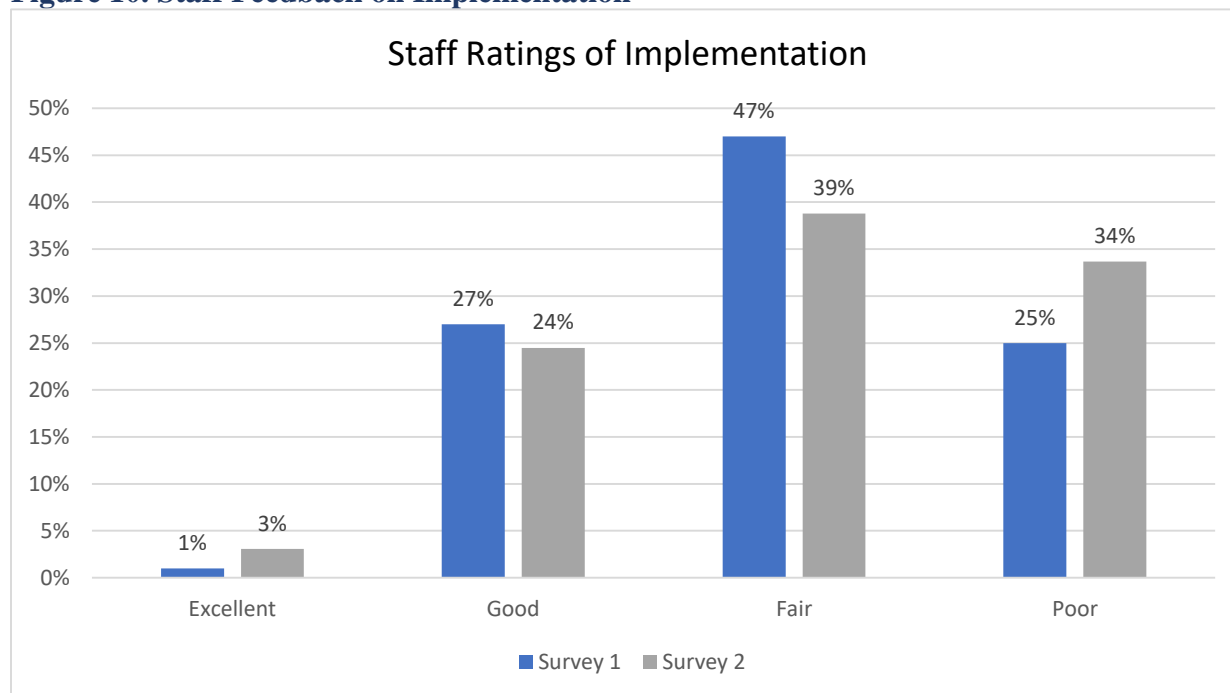
Because the exit criteria for math in particular relied on use of classroom data and teacher judgment (and because MAP and M-COMP data would not be available during second semester), a goal-setting approach was tested with some students in second semester, in which students and teachers set skill-based goals for students that could be monitored and used as evidence for exiting intervention. For example, a 6th grade goal for one student in math was “By the end of March, I will be able to convert between fractions, decimals, and percents.” Sample data for 29 students from one school suggest that about half met their goals in math.²

Implementation Overall

Staff were surveyed twice during the year about their impressions of implementation overall, encompassing both intervention and enrichment. As shown in Figure 10, of the about 57 percent of staff who responded to the feedback surveys about acceleration implementation, most staff rated implementation overall as fair or poor (with a greater proportion rating it as such at Sandburg) in both December and May.

² Goal-setting was also tested with some students in reading.

Figure 10. Staff Feedback on Implementation

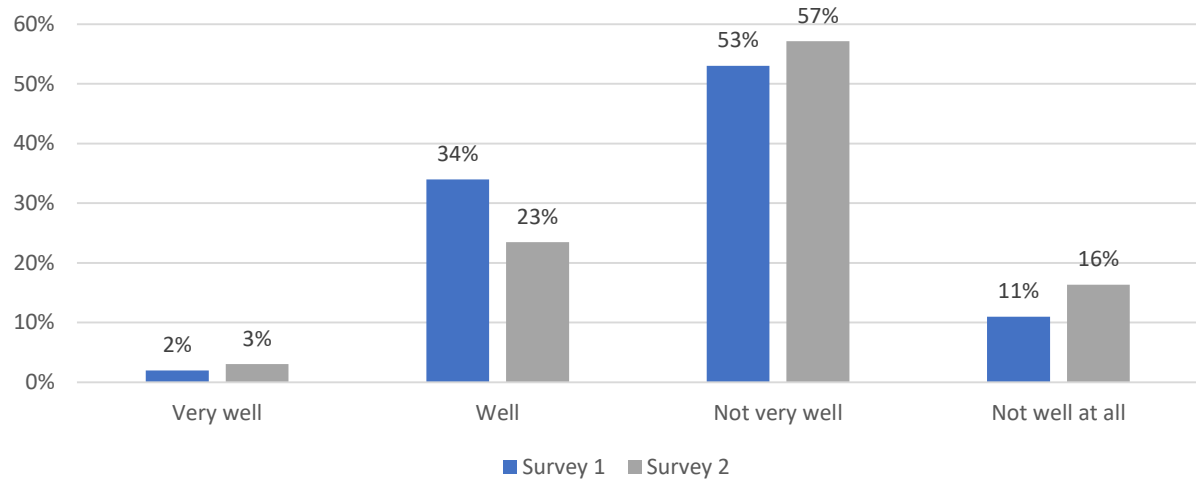


In terms of strengths and areas for improvement, the most common theme about successful aspects of implementation from staff related to the fact that students do have some choice, and can explore things that interest them and that they may not experience in their regular coursework. The second most commonly cited theme related to students having fun, time to relax, or to be in an ungraded environment during acceleration. A number of comments from staff also noted that they felt a successful aspect of implementation was the chance to get to know students in this kind of setting or to get to know different students. The most common challenge cited by respondents was the need to do additional planning work for both intervention and enrichment courses, even when materials were available (e.g. for enrichment courses that had already been designed and posted). Staff noted that sometimes the materials weren't detailed enough to use without significant additional planning or seemed to be of poor quality. Several respondents noted that they felt this prep work was taking away from core instructional time preparation. The other most common challenge relates to organization and logistics, and particularly around scheduling and tracking students. A number of respondents cited this as particularly difficult when changing courses every three weeks and suggested longer rotations. Several others suggested a need for district-level systems or guidance and supports on scheduling (and courses more generally).

As shown in Figure 11, overall most staff said that they felt courses were serving students “not very well” or “not well at all,” though it is unclear if this feedback relates more closely to enrichment or intervention.

Figure 11. Staff Ratings of Acceleration Courses

Staff Ratings of How Well Enrichment & Intervention Courses Serve Students



Appendix A. Evaluation Questions³

Table A1. Evaluation Questions, Data Sources, Data Collection Timeline

Question	Data Source(s)	Data Collection Timeline
Implementation		
<p>To what extent is the acceleration period being implemented as intended? Are students entering and exiting enrichment and intervention according to established criteria? Are students for enrichment placed in their preferred courses? How large are the intervention courses? How often are students missing enrichment or intervention?</p> <p>How does implementation vary by school?</p>	<p>Student tracking information (Google sheet)</p> <p>MAP scores</p> <p>Student preferences surveys</p>	<p>Updated every 3 weeks</p> <p>Fall, winter</p> <p>Updated every 3 weeks</p>
<p>What are the strengths and areas of improvement in implementation in terms of placement, tracking, instruction, monitoring, or other?</p>	<p>Acceleration committee feedback</p> <p>Teacher/staff survey</p>	<p>3x over the year</p> <p>Middle, end of year</p>
Outcomes: Enrichment		
<p>Do students report enjoying their enrichment courses and interacting with a broader range of peers in those courses?</p> <p>Do students feel an increased sense of ownership over their learning, learn about new areas of interest, feel more engaged in school?</p> <p>Do teachers report interacting with a broader range of students? Do teachers feel satisfied with opportunities to teach areas of interest?</p> <p>How do these outcomes vary by school, by beginning engagement levels, and by the amount of time spent in enrichment?</p>	<p>Student survey</p> <p>Student engagement survey</p> <p>Teacher/staff survey</p>	<p>3x per year</p> <p>Beginning of year, end of year</p> <p>End of year</p>
Outcomes: Intervention		

³ Although parent feedback was not initially identified as a source of information to address evaluation questions, as a result of stakeholder interest, a parent survey on acceleration was conducted in December 2017.

Question	Data Source(s)	Data Collection Timeline
<p>Do students who are identified for interventions feel more confident about their skills and knowledge? Do they feel supported by interventions?</p> <p>Do students make academic progress and exit interventions?</p> <p>Does the achievement gap between intervention and non-intervention students narrow over the year?</p> <p>Do these outcomes vary by school, by subject, by tier of intervention or starting academic levels, by length of time in intervention?</p>	<p>Student survey</p> <p>Student tracking sheet (Google sheet)</p> <p>MAP data M-COMP, common assessment data (math)</p> <p>Student survey (self-report on number sense, growth mindset)</p> <p>STAR data (reading)</p>	<p>3x per year</p> <p>After each intervention period</p>