PAST InnovationLab
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Math Matters:
Transforming Math Education for 21st Century Success

Quarterly Report

April 30th, 2015

THE PAST FOUNDATION

Math Matters
April 30th, 2015 Quarterly Report
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MATH MATTERS 3rd Quarter Report
FORMATIVE EVALUATION

The Knowledge Capture (KC) Program conducted evaluation during the third quarter of implementation for the Math Matters Project, during the period beginning January 30 to April 17, 2015. A chronology of KC evaluation activities for all work conducted is presented in the Appendix of this report.

The Math Matters Program was initiated in August 2014 by the MIND Research Institute, providing access to ST Math software for use in K-12 classrooms in 100 buildings in ten districts and organizations across Fairfield and Franklin counties. As of the Mid-Year Grant report (January 30, 2015), the ST Math implementation process continued to provide on-site Part 1 and Part 2 training in four districts including Columbus City Schools, Hilliard, Worthington, Pickerington, and also for Fairfield County ESC staff. Additional support was provided within each district at specific school sites and is presented below in *Table A: Math Matters Implementation Overview January to June 2015*. This continuing interaction with individual schools offers the districts a tailored approach responding to specific emerging needs identified by the ST Math team through ongoing communication with the districts, and with individual school leaders within each of the nine districts.

Note in Table A that at least five of the nine districts participated in "Data Meetings," (for additional details on the purpose and scope of "Data Meetings," see Appendix: "Math Matters, MIND Research Institute Quarterly Report on ST Math" for descriptions of this and other different types of training and implementation support). Additionally, six of the nine districts requested follow-up on-site visits by the ST Math Education Consultant or others from the ST Math team. This included requests from teachers for "Classroom Modeling," as a distinct type of classroom support for teachers. During these modeling sessions, the Knowledge Capture team observed ST Math trainers work directly with students in a classroom setting, where teachers were able to observe ST Math team members facilitate lessons with the class as a whole.

Table A also shows planned summer training options scheduled for June, including the "Train the Trainer" certificate program, providing each district with at least two individuals who will have the skills to conduct ST Math teacher training beginning in fall 2015. The "June Academy" offered on two dates in mid-June is open to a maximum of (20) teachers per session (am/pm) on each day providing teachers four additional half-day training sessions. Those sessions are designed to focus on particular aspects of ST Math to meet specific interests and training needs of those teachers who elect to participate in the ST Math Academy.

Table A: Math Matters: Implementation Overview January-June, 2015											
ST Math Activities		Fairfield ESC	Lancaster	Liberty Union	Pickerington	Walnut	Columbus CS	Gahanna	Hamilton	Hilliard	Worthington
Training [Pt. 1 & 2; Abbrev.]	January	■			■		■				■
	February						■			■	
	March						■			■	
Data Meetings	January				■						■
	February		■		■					■	■
	March		■		■				■	■	■
	April		■								
Classroom Support [Site Visit]	January									■	■
	February		■	■	■		■			■	■
	March		■	■	■					■	■
	April				■					■	
Classroom Modeling	January									■	
	February		■	■			■			■	
	March									■	■
	April		■						■	■	
JiJI School Visits	April		■	■	■	■	■			■	■
Train the Trainer [6/23-6/25}	June		■	■	■	■	■	■	■	■	■
June Academy [6/9 & 6/17]	June		■	■	■	■	■	■	■	■	■

Source: MIND Research Institute, April 27, 2015; and Fairfield County ESC

The most recent activity added to program support for the districts involved JiJi school visits during the last week of April in seven districts. This activity was offered to districts to provide an additional boost for engaging students and teachers by providing a real time experience interacting with a JiJi character (in costume), adding to the process of establishing "JiJi culture" within the schools that scheduled this event.

In the 3rd quarter of year 1 of the project, KC field observation of ST Math program implementation shifted focus to observe Data Meetings, Classroom Support, and Classroom Modeling. Additionally, KC observed 3 of the seven JiJi visits, yielding new data on syllabus completion that will be reviewed at the May Formative Evaluation meeting.

The KC team has conducted observation of Part 1, Part 2 and Abbreviated Training of elementary teachers from 56 of the 57 schools that have launched ST Math for classroom use, 15 of the 16 middle schools, and all seven of the high schools that have initiated teacher training (see Appendix Table, "*Overview of ST Math Program Training and Program Support for Elementary, Middle and High School*"). Analysis of training observation data reported by Knowledge Capture formative evaluation for the first 2 quarters of the grant (January 30), largely reflects a positive response to ST Math, confirmed by the expanded numbers of teachers and students using ST Math as of the 3rd quarter of the first grant year. As reported by ST Math, students increased use by 14.4% (a total of 3,020 new students between January and April 3, 2015). The number of teachers using ST Math in the 3rd quarter also increased, 13.3%, rising to a total of 917 teachers who are now actively using the ST Math program.

Anecdotal reports of parent response to ST Math are also favorable, with some schools holding parent meetings to provide information on the ST Math program. Others report that parents are showing interest as students are assigned ST Math homework. In this context, approaching the 4th quarter of the year 1 implementation process, the next section focuses on the Data Meeting component of implementation that is providing district-level program administrators and building leaders the opportunity to review successes as well as challenges in meeting year 1 goals and objectives.

Data Meetings

ST Math Data Meetings were conducted beginning in November 2014 (see Appendix: Data Meetings Reported by District, November 18, 2014-March 24, 2015). Reporting based on ST Math dates included a total of 31 data meetings in eight districts. During the 3rd quarter of implementation (through March 24th), (25) Data Meetings were conducted in five districts including Lancaster (5), Pickerington (8), Hamilton (1), Hilliard (7), and Worthington (4). The ST Math Program 3rd quarter report shows (2) additional meetings in Hilliard schools, and

(5) additional meetings held in Worthington schools between March 25th and March 31st, 2015. The Data Meetings that occurred after March 25th are not included in this review.

Thematic analysis of issues discussed in Data Meetings held between January 7th and March 24th, 2015 (n=31) involved primarily key areas identified by schools requiring more on-site support, or areas presenting ongoing challenges to ST Math use in the classroom. The former include particular types of continued professional development that teachers are requesting as they advance their skills in use of ST Math in the classroom. The latter concerns technology issues at schools experiencing ongoing problems that in some cases present significant barriers to effective use of ST Math. These include problems associated with outdated devices, lack of sufficient devices school wide, older buildings that experience intermittent problems with internet access, district delays in reconfiguring purchased Google Chrome Tablets for ST Math, or awaiting computer carts.

Problems associated with technology also touch on related issues that are occurring as reported by teachers and building administrators.

- First, where teachers do not have access to devices *professional development is not being scheduled*, and therefore the unexpended PD funds will likely be shifted to acquiring more devices. In schools where there are insufficient devices, purchasing additional tablets by the June 30 deadline will improve the student to device ratio. However, during year 2 of the Math Matters Program teachers at schools acquiring more devices at school year end 2015 will very likely rely primarily on the self-guided training courses for initial basic skills to initiate use of ST Math during the 2015-2016 school year. These teachers may also turn to the certified district trainers (Train the Trainer Program, June 2015) for ongoing training needs as they work to gain proficiency with ST Math in the classroom. This issue will be further explored in the next section of this report.
- Second, where teachers have had initial training, but students have *limited access to devices* or *limited access to the internet*, teachers report that students are not attaining password proficiency, creating a barrier to logging in to use ST Math. These issues are compounded for students in neighborhoods where high poverty is a factor affecting lack of afterschool access to their ST Math accounts.

Ongoing Professional Development: A Review of Data Meeting Issues in Five Districts

Data Meetings conducted in five of the nine districts between January 7th and March 24th identified a range of challenges for teachers. The ST Math Program Report (April 30th) outlines specific issues for each of the nine districts, as well as steps being taken to address particular challenges unique to individual schools. Looking at the priority issues across the nine districts

provides a distillation of the common challenges experienced by teachers as they engage their students in use of ST Math.

Only one district raised the issue of lack of buy-in at the elementary school level. Two other districts report that teachers are not yet ready to release control of the pace of learning (teachers turning off the "objectives" in the ST Math program in order to prevent students from progressing ahead of the class), and two districts report that some teachers are unwilling to use ST Math because they do not understand how it connects with Common Core Standards and fear that it will not prepare students for the standardized tests. A small number of principals were not aware of the program's administrator access, and discovered that the ST Math reports sent to all building administrators were sitting in their "junk" folder, and therefore had not seen those data reports.

Among the (25) Data Meetings held in five districts, the following four general issues emerged as high need areas for ongoing support to advance effective use of ST Math:

- Teachers need better strategies to increase effectiveness in working with individual struggling students (2 districts)
- Teachers need to improve their skills in using facilitating questions (4 districts)
- Teachers are ready to improve their ability to use student reports to drive instruction (3 districts)
- Teachers need strategies to integrate ST Math with classroom instruction, including understanding how to build on existing software programs already in use (4 districts)

Of the four issues identified above, the last two areas of need, 1) improving skills to better integrate ST Math with classroom instruction, and 2) gaining skills in use of ST Math data to drive instruction, together offer the greatest potential for achieving an instructional approach that supports the transition to blended learning. This requires that teachers are able to fully maximize use of individual ST Math real time data on student grade-level skill development, and that they have the skills essential for designing effective integration of technology-based resources to support classroom instruction.

It should be noted that two districts of the five reviewed for this report are giving teachers discretion to explore how to best integrate tech resources including ST Math. These districts offer the potential for creating models for development of blended learning environments that can inform other districts during year 2 through year 5 of the project. This involves not only developing strategies for use of ST Math as a resource for classroom instruction, but may also involve approaches developed by teachers for use of ST Math in conjunction with curriculum programs such as Eureka Math.

Classroom modeling has recently been phased in to advance teacher skills in multiple areas providing them with highly tailored support in response to "readiness" for a more in-depth use of ST Math. In these sessions, one to two individuals from the ST Math team including the MIND Instructional Coach and ST Math Education Consultant work directly with students for a class session, while teachers observe student-instructor interaction, providing them with opportunities to see facilitation of ST Math.

ST Math staff demonstrate how to get students to "think about their thinking," increasing awareness through communicating with other students about what they are learning. This can also involve letting students who have mastered a concept take on the role of teaching other students, reinforcing the concepts learned for the student "instructor." In this manner, classroom modeling can help teachers to understand a range of effective ways to work with the class as a whole.

Site visits during the 3rd quarter were also designed in response to requests from individual schools to provide additional training on specific issues identified by teachers that include:

- Use of the self-guided courses and other online resources
- Use of the homework options
- Instructional strategies for gifted students
- Use of the "Fluency" component of the ST Math Program and how the Fluency data can be used by teachers
- Reviewing areas that continue to pose a challenge for teachers (e.g., "playing the grey")
- Strategies for resolving "student alerts"
- Strategies designed to expand use of ST Math and teacher buy-in
- How to use ST Math to introduce classroom lessons
- Potential benefits and drawbacks for teachers who want to reorder the ST Math curriculum
- Reviewing data report components (syllabus progress, standards, mastery, objectives, fluency) with administrators to clarify the different types of information available that can inform administrators of their school's progress

Planning for year 2 of the Math Matters Program is currently being conducted with each of the districts to review progress, projected work to be conducted during the 4th quarter of the grant, May to June, and to consider possible PD or other support for the 2015-16 academic year. In the final phase of year 1 implementation, a key component of assuring ongoing classroom level support for ST Math across districts will be established with at least two individuals from each district completing the Train the Trainer Program in June 2015. This strategy will have its strengths and weaknesses dependent upon multiple factors including staff turnover, math

content competency of the individuals trained, and the size of the districts (number of buildings) relying on district ST Math trainers.

Formative Evaluation Plan for May to June 2015

Planning during the 3rd quarter has been underway in coordination with the ST Math implementation team for work to be conducted during the 4th quarter. The approach to formative evaluation employed in this project follows a *mixed methods research design* outlined in the National Science Foundation Directorate for Education and Human Resources, Division of Research and Learning in Formal and Informal Settings (2010) for conducting qualitative analysis of program implementation. In this process, formative evaluation incorporates a sequence of research data gathering processes that are intended to inform each successive phase of research. Monthly project team meetings and observation of on-site project activities form the first data sets for assessment in conceptualizing the next phase of the research design and have been presented in the prior quarterly reports.

Administrator interviews provide the next level of data to gain insights on expectations and experience of the Math Matters Project. The final components of the research design are in development preparing for teacher focus groups (April to June) and the teacher survey (May), which are discussed in the following sections.

Administrator Interviews

During the 3rd quarter formalized one-on-one interviews with project leads within each district were conducted. Although six of the nine districts had been engaged in discussion with the KC team prior to March 2015, the interviews initiated in April encompass the final set of interviews designed to explore a series of similar questions across all districts. The district administrator level interviews can include program leads, curriculum or math content leads, as well as special program directors. The schedule for interviews is presented in *Table B: Math Matters Formative Evaluation Schedule*.

The formal interview typically lasts from 45 minutes to 1.5 hours at the convenience of the interviewee. Interviews can be scheduled before or after the school day, or any time during the school day to accommodate administrators' availability. The purpose of the interview involves three key areas:

- Gather background data on the district design for implementation of ST Math, including clarifying initial expectations for ST Math training and ongoing support; and review any important modifications that had either occurred or were planned to

occur during the last and final quarter of the school year, with special focus on changes that occurred due to unforeseen challenges and constraints (see Appendix: Interview Questions for Administrator, Curriculum and/or Program Lead).

Table B: Math Matters: Formative Evaluation Interview Schedule

District	Dates	Participants	KC Event	Product
District and Building Lead Interviews (n=9 School Districts)				
Pickerington Local Schools*	March 5	Administrator (n=1)	Interview	Interviews are designed to explore potential issues that will be incorporated into the final Teacher Focus Group Questions and Teacher Survey Questions; preliminary analysis will be submitted in the July 30, 2015 Quarterly Report
Gahanna Jefferson Public Schools*	March 10	Administrator (n=1)	Interview	
Hilliard City Schools*	April 8	Administrator (n=1)	Interview	
Lancaster City Schools	April 10	Administrator (n=1)	Interview	
Liberty Union-Thurston Local Schools	April 13	Administrator (n=1)	Interview	
Worthington Schools*	April 13	Administrator (n=1)	Interview	
Columbus City Schools*	April 14	Administrator (n=1)	Interview	
Pickerington Local Schools	April 15	Administrator (n=3)	Interview	
Walnut Township Local Schools	April 15	Administrator (n=1)	Interview	
Hamilton Local Schools*	May 11	Administrator (n=2)	Interview	

*Multiple Interviews (October-December 2014)

- Discuss interest in teacher focus groups to be held in the district during April and May, including possible options and strategies for conducting teacher focus groups, identifying particular schools within the district, grade level range, as well as anticipated outcomes of the focus group process regarding how the data will used (this part of the discussion also involves providing clarifying information about the formative evaluation process including confidentiality, analysis of aggregate data, and how the data will be applied in designing a teacher survey).

- Review plans and schedule for launching an online survey for all teachers to complete at the end of the school term to determine any significant conflicts in scheduling or best strategies for providing teachers access to the survey via a web link (similar to focus group discussion, this also involves reviewing the confidentiality protocols, etc.).

Analysis of interview data is being conducted in stages to accomplish the following tasks:

1. Initial identification of specific challenges observed by administrators regarding aspects of program implementation

2. Drafting a preliminary set of teacher focus group questions

3. On completing the administrator interviews across all districts, the interview data will be fully analyzed to identify administrator perspectives on year 1 implementation

Analysis of interview data will identify key aspects of the first year implementation experience including concepts regarding impacts of ST Math for teachers and students, parent response, and planned strategies and program needs for year 2 of the Math Matters Project. The administrator interview analysis will be presented in the July 30 report (following human subjects research protocols, administrator data must be analyzed as an aggregate set in its entirety; therefore, the analysis of this dataset will be presented in the July 30 4th Quarter report).

Teacher Focus Groups and Surveys

Based on knowledge of the project implementation process gained from interview data, observations, and project team input, the next phase of work is to conduct focus groups with classroom teachers. This data is designed to look in more detail at the issues encountered at the classroom level. The final draft focus group questions were circulated to the Math Matters Project Team for comment prior to conducting the first teacher focus group (see Appendix for Teacher Focus Group Questions).

Initial analysis of discussion themes raised by the teacher participants in the first two focus groups is currently being conducted in preparation for a formative evaluation meeting scheduled for May 6 with the ST Math team. This internal project review will provide an opportunity to assess preliminary findings and determine any modifications to assure that significant issues are addressed, and also consider any unanticipated issues that are emerging among teachers. The discussion themes will be organized into three grade level groups: (1) K-5; (2) 6-8; and, (3) 9-12 (intervention).

Additionally, discussion of issues identified by ELL, gifted, and special education teachers will also be considered for particular themes that should be further explored or considered in future focus group discussions. The internal review of the preliminary focus group data analysis will also initiate the process of formulating potential survey questions for teachers organized by the three key groups above, as well as important aspects affecting the ELL, gifted and special education teachers.

The districts overall are showing a high level of interest in organizing focus group discussions for their teachers. At this time all nine districts have indicated an interest in coordinating with the KC team to develop arrangements for holding a focus group. Six of the nine districts have confirmed dates, locations and grade level group. The remaining three districts are working with the KC field manager to identify potential opportunities to conduct a focus group in their district to occur sometime in May.

The teacher survey schedule appears in Table C below. The draft survey questions will be developed by the KC Team in early May. The final draft set of questions will be circulated to the Math Matters Project Team during the week of May 11th, with questions in final form on May 15, when the website survey links will be sent out to teachers in the nine districts. The survey will be open a minimum of ten week days and one weekend, 5/16-17 for teachers to logon to complete the online survey (note: teachers will have access to the survey during the 3-day holiday weekend, 5/23-25; however, it is not anticipated that many teachers will participate in the online survey on those dates, therefore, those days are not included in the tally of available days offered to teachers to complete the survey). The survey will remain open through the last day of school in each of the districts.

The final stages of work in the 4th quarter of year 1 will include conducting observation of the Train the Trainer Program. Additionally the KC team will conduct focus groups with the individuals who participate in the certification program. Observation of the ST Math June Academies will also be conducted and evaluated as a final data set for year 1.

TABLE C

Teacher Surveys (total n=9 School Districts)			
DISTRICT	DATE	GROUP	PRODUCT
Hamilton Local Schools (Projected n= 42)	May 15-28	Elementary and Middle School Teachers	Preliminary analysis of teacher survey data will be presented in the July 30, 2015 Quarterly Report; a complete analysis will be presented in the October 30, 2015 Final Math Matters Report
Gahanna Jefferson Public Schools (Projected n=8)	May 15-28	Middle School Teachers	
Walnut Township Local Schools (Projected n=12)	May 15-29	Elementary Teachers	
Liberty Union-Thurston Local Schools (Projected n=19)	May 15-June 3	Elementary Teachers	
Hilliard City Schools (Projected n= 276)	May 15-June 1	Elementary Teachers	
Pickerington Local Schools (Projected n=175)	May 15-28	Elementary and Middle School Teachers	
Columbus City Schools {Projected n=46)	May 15-June 11	Elementary Teachers	
Lancaster City Schools (Projected n=135)	May 15-29	K-12 Teachers	
Worthington Schools (Projected n=191)	May 15-29	K-12 Teachers	
Total All Districts Projected n=917 Teachers			

Knowledge Capture
APPENDIX
Math Matters

ST Math Implementation Tables

Table 1: Math Matters Chronology of Knowledge Capture Activities
January 10 to April 15, 2015

Table 2: Overview of ST Math Program Training and Program Support
for Elementary, Middle, and High School
August 2014 to April 2015

Table 3: ST Math Data Meetings Reported by District
November 18, 2014 to March 24, 2015

Math Matters Interviews and Focus Groups

Administrators, Curriculum and/or Program Leads Interview Questions
Teacher Focus Group Questions

ST Math Implementation Observations

Fairfield and Franklin Counties Elementary Schools Bullet Point Reports (7)
January 13 to April 3, 2015

Fairfield and Franklin Counties Middle Schools Bullet Point Reports (1)
January 13 to April 3, 2015

Fairfield and Franklin Counties K-12 Bullet Point Reports (2)
January 13 to April 3, 2015

Math Matters, MIND Research Institute Quarterly Report on ST Math

April 30, 2015
Submitted directly to the Fairfield ESC
This report is included here for reference only

Table 1: Math Matters Chronology of Knowledge Capture Activities
January 10, 2015 to April 15, 2015

KC Staff	Date	Event	Product	Participants
MSH, MGC, AR	1/12/15	Monthly Formative Evaluation Meeting	Project Review	Ellen Cahill, Eric Pryor, Twana Young, Doug Bruno
LB	1/13/15	Site Visit	BP*	10 classroom teachers and the RTI Tutor
LB	1/13/15	Site Visit	BP	Principal and Title 1/ESL Teacher
LB	1/13/15	Follow-up Training	BP	10 teachers (all special education grades ranging from K-12)
KG	1/14/15	Site Visit	BP	Math and Literacy Coach, Principal, and 4 Third Grade teachers
LB	1/16/15	Follow-up Training	BP	Principal, Assistant Principal, and 19 teachers
KG	1/16/15	Abbreviated Part 2 Training	BP	Lead Teacher and 15 classroom teachers (16 participants)
MSH, MGC, MM, AR	2/17/15	Monthly Formative Evaluation Meeting	Project Review	Ellen Cahill, Eric Pryor, Twana Young, Doug Bruno
LB	2/25/15	Part 1 Training	BP	1 elementary ESL teacher, 1 MS/HS ESL teacher, 3 ESL teacher aides
MSH/MGC	3/5/15	Interview	BP	Administrator
MSH/MGC	3/10/15	Interview	TTBC**	Administrator
MSH, MGC, AR	3/12/15	Monthly Formative Evaluation Meeting	Project Review	Ellen Cahill, Janet Hinds, Eric Pryor, Twana Young, Doug Bruno
MGC	3/26/15	Site Visit	BP	2 teachers; 17 students
AJ	3/31/15	Site Visit	BP	Principal and ESL Teacher
AJ	3/31/15	Site Visit	BP	ESL Teacher
MSH, MGC, AR	4/6/15	Monthly Formative Evaluation Meeting	Project Review	Ellen Cahill, Eric Pryor, Doug Bruno
MSH/MGC	4/8/15	Interview	TTBC	Instructional Coach
MSH/MGC	4/10/15	Interview	TTBC	Program Administrator
MSH/MGC	4/13/15	Interview	TTBC	Administrator
MSH/MGC	4/13/15	Interview	TTBC	Program Administrator
MSH/MGC	4/14/15	Interview	TTBC	Program Administrator
MSH/MGC	4/15/15	Interview	TTBC	Program Administrator

*BP=Bullet Point Report; ** TTBC=Transcription to be completed

Table 2: Overview of ST Math Program Training and Program Support for Elementary, Middle, and High School
Knowledge Capture (KC) Program Observation August 2014 to April 30, 2015

	Elementary Schools			Middle Schools			High Schools		
County	Grant Recipient Identified by Fairfield ESC [Aug. 2014]	ST Math Training Initiated [Aug. 2014-Jan. 2015]	**KC Observations**	Grant Recipient Identified by Fairfield ESC [Aug. 2014]	ST Math Training Initiated [Aug. 2014-Jan. 2015]	**KC Observations**	Grant Recipient Identified by Fairfield ESC [Aug. 2014]	ST Math Training Initiated [Aug. 2014-Jan. 2015]	**KC Observations**
Fairfield	17	17	**17**	5	5	**5**	1	1	**1**
Franklin	54	40	**39**	14	11	**10**	8	6	**6**
TOTALS:	71	**57**	**56**	19	**16**	**15**	9	**7**	**7**

Table 3: ST Math Data Meetings Reported by District, November 2014 to March 2015

ST Math Activities	Lancaster	Liberty Union	Pickerington	Walnut	CCS	Gahanna	Hamilton	Hilliard	Worthington
November	11.25.14 (1)		11.20.14 (1)			11.18.14 (1)			
			11.21.14 (1)						
December		12.18.14 (1)		12.18.14 (1)					
January	1.13.15 (2)		1.8.15 (3)					1.14.15 (1)	1.7.15 (1)
			1.9.15 (1)						
			1.12.15 (1)						
			1.15.15 (1)						
February	2.10.15 (3)							2.6.15 (1)	2.6.15 (1)
								2.15.15 (1)	2.18.15 (1)
								2.18.15 (1)	2.19.15 (1)
								2.23.15 (1)	
March			3.3.15 (1)				3.13.15 (1)	3.2.15 (1)	
			3.24.15 (1)					3.19.15 (1)	
April									

Yellow highlight indicates PAST Foundation Observation

Administrator, Curriculum and/or Program Lead Interview Questions Math Matters

1. When did you learn about ST Math?
    a. How did information about ST Math reach you?
    b. Did you hear about it in a school/district meeting?

2. Was your school/district asked/invited/selected to participate or did you request ST Math for your school/district?

    a. How did you decide who would be trained (grade level teachers, intervention specialists including ELL, Special Ed)?

    b. Was staff given the opportunity to volunteer to be trained or was it mandated?

    c. Are others who were not included in Y1 training requesting ST Math for their students?

    d. Have you heard any interest from students who are asking about ST Math (currently not in a classroom using ST Math)?

3. What process are you using to implement ST Math in your building/district?

    a. Did you select onsite training, webinars, or self-guided training options?

    b. Are teachers who have had training asked to teach others in the building?

        i. Have trained staff begun working with others in the building?

4. Are you implementing a 'train-the-trainer' model currently or in the future?

    a. If you are currently implementing the train-the-trainer model, is it effective in your building/district?

5. What is the model for sustainability going forward into Y2-Y5?

6. How often do you review your building/district's ST Math data?
    a. How is this data helping you?

Teacher Focus Group Questions
Math Matters

1. What grade do you teach, and how long have you been an educator?
2. When did you get your training for ST Math, and how were you trained?
3. How is ST Math used in your classroom?
4. What kinds of opportunities have you had for sharing ST Math best practices with others in your building? If so, what have you shared?
5. What do you see as the most important benefits of ST Math?
6. What has been the biggest challenge with using ST Math in your classroom?
7. What kind of feedback have you had from your students about ST Math?
8. What kind of feedback have you had from parents about ST Math?
9. How do you see using ST Math with your students moving forward?
10. Is there any additional support you'd like to have for using ST Math?

APPENDIX

Math Matters: Knowledge Capture Field Observation Reports (7)

Fairfield and Franklin Counties

Elementary Schools (All Districts)

Note: Field Observation Reports are coded to assure participant anonymity. For example, codes appear as a series of numbers and letters (1-9-MS-33) where the first number represents the county, the next number indicates the district, the letters refer to grade level (e.g., elementary school (ES); middle school (MS); and high school (HS); and K-12 (K-12-ALL), and the last number in the series signifies the school building.

ST Math Site Visit: 1-1-ES-6 [SV: LB]
January 13, 2015

MIND Educational Consultant: Twana Young
Participants: 2014; 3008
Location: 1-1-ES-6

Introduction:

This school has been using ST Math since October and has had good implementation. The kindergarten, 1st, and 2nd grades are using it with fidelity and have made it part of their daily rotation. The 3rd, 4th, and 5th grades are having difficulty working it into the schedule because these grades are departmentalized and have a more ridged schedule. One 2nd grade teacher has been fitting ST Math in as often as possible and has made substantial progress with her class. The Principal is excited to see this teacher's test scores. Many of the teachers, as well as the Principal, are happy with the progress at the school and can see their students flourishing. The Principal would like to structure it into the school day next year.

The Principal and many of the teachers attended training, but the Principal wanted to schedule a mini-training session to help some of the teachers improve integration of ST Math into their day. The Principal was hoping that the Educational Consultant would have time to do a classroom visit, but there wasn't enough time.

Site Visit (SUMMARY):

The meeting took place in the library. The Title 1 teacher had some questions about the JiJi Believer Contest. The participants discussed data reports, school progress, increasing usage, fluency, and creating a JiJi culture. The Educational Consultant answered specific questions raised by the Principal and Title 1 Teacher.

The Principal believes next year will be much easier for the students because they will know what to expect. Some of the 5th grade games are very difficult, and she feared that some of the students might feel like a failure because they are struggling. The rising 5th graders will have been using the program for a year and will have a better grasp of the nature of the program. They may be more resilient because of their experience with ST Math related struggles.

Successes:

- *The principal, most of the teachers, and the students are very excited about ST Math*
- *The students enjoy their ST Math time*
- *Student with inconsistent STAR scores shows improvement*

    - *Although her ST Math progress reports reflect that same inconsistency, her scores have improved consistently over the past few objectives*
- *Some low performing students are making great progress*

Challenges:

- *3rd-5th grade teachers are having difficulty finding time for ST Math because of school schedule*
- *Some students are not logging out properly and their data isn't being saved*
- *Access to computers at home is limited (high poverty school)*
    - *School provides "extension time" three days per week*

Working with Data Reports and Data Frames:

- The Educational Consultant reviews data reports with the Principal and Title 1 teacher
    - Demonstrates how to sort the reports and the different categories of data
    - Replaying completed games is a concern
        - *Principal believes that when students get frustrated they tend to go back to easier levels to regain confidence*
    - Discussion of decreasing quiz scores

Making Connections:

- *Both the teacher and principal believe that Fluency will be beneficial to students*
    - *3rd grade works on building speed and accuracy but hasn't used Fluency*
        - *Principal would like to see 3rd grade teachers using Fluency*
    - *Principal would like to see 10 minutes of Fluency time scheduled for every day*
    - *Teacher likes the worksheets available to use with Fluency*
- Educational Consultant reviews full school data – "Good report for admins to check"
- Educational Consultant demonstrates some of the resources on the website
- Discussion of the "Write Something" guide sheet
    - Encourages students to think about math

Student Engagement:

- *The Principal and teacher are excited about the student progress tracker sheets*
    - *They think it will help to motivate students*

Teacher Engagement:

- *Teacher buy-in is high at the school*

Principal Engagement:

- *Principal has been very engaged with implementation and use*

- *Principal often plays games at home*

Creating a JiJi Culture:

- *The teacher and Principal are very excited about the possibility of JiJi coming to the school*
- *Two teachers are planning to create a JiJi Believer video*
- *Principal and Title 1 teacher are excited about the JiJi Store, availability of penguin toys at Oriental Trading, and printable JiJi origami*

ST Math Follow-Up Training: 1-3-ES-15 [SV: KG]
January 16, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: 16 elementary school teachers, ranging K-4
Location: 1-3-ES-15

Introduction:
This brief follow-up training session took place in the school's library and was part of the school's teacher in-service day. The educational consultant structured this training as a Q & A session.

Site Visit (SUMMARY):
The session began with an introduction from the Lead Teacher. Sixteen participants sporadically filed in to the training session. The educational consultant covered the areas in which the participants had follow-up questions and concerns. The educational consultant passed out alert sheets to all the participants. One participant and her students were not showing up in the system even though they had previously been logged in to ST Math and playing the games. This issue was resolved after the training session. The educational consultant emphasized to participants that teachers are the bridge to "real learning."

Topics covered:

- Introduction by Lead Teacher
- Teacher Mode
- How to Access and Analyze Data
- Fluency
- Syllabus Progress
- Standards Mastery
- Alerts
- Homework
- Managing Curriculum
- Teacher Resource Site
- Creating a JiJi Culture

Successes:

- *School is completely rostered and students have been using ST Math*

Teacher Concerns:

- *One participant said that her higher-end students are getting stuck because they are going to fast*

- *Gaps in teacher knowledge*
    - *Previously trained participants could not recall what "playing the gray" meant*

Technical Concerns:

- *One participant and her students were not showing up in the system even though they had previously been logged in to ST Math and playing the games*
- *Some teachers have multiple grade levels*
- *School can not get on ST Math as much as they would like*
    - *Locked down for PARCC testing*
    - *iPad Minis purchased with this grant are the only technology available for ST Math*

Creating a JiJi Culture:

- *Participants are interested in hosting "JiJi Socials"*

ST Math Follow-Up Training: 1-3-ES-18 [SV: LB]
January 16, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: 2015; 2016; 19 teachers
Location: 1-3-ES-18

Introduction:

This follow-up training session took place in the school's computer lab and was part of the school's in-service day. This school district implemented ST Math using "train the trainer." The Assistant Principal was at the district training early in the school year and watched many of the training videos and webinars available on the resource site. He conducted two training sessions with the math teachers in the building. The teachers were fairly confident in their implementation but wanted to learn more about using the program.

The Education Consultant distributed manuals and sticker charts to all of the teachers. The Assistant Principal stepped out of the session briefly to print Fluency manuals so they could be distributed to teachers. He has been distributing all of the materials that the Educational Consultant has sent to the teachers.

Site Visit (SUMMARY):

The session began with a motivational speech from the Assistant Principal to encourage teachers to apply what they learn in the professional development sessions to their teaching. The session emphasized the structure of the games, connection to the curriculum, and using ST Math in the classroom. Teachers were engaged throughout the session and enthusiastic about learning more about the program.

Topics covered:

- Introduction by Assistant Principal
- Science behind ST Math
- Structure of ST Math
- Analyzing the games
- Teacher Mode
- Facilitation
- Creating a JiJi Culture

Successes:

- *School will be incorporating it into their 5 week afterschool tutoring program*
    - *Time divided evenly between reading, ST Math and small group instruction*

- *Students love the program*

Making Connections:

- Teachers can use the puzzles to introduce topics
- Curriculum page on the ST Math website describes how program fits into curriculum
- Developing math vocabulary by developing the concept
- Participants learn how to use teacher mode
- *Teachers are planning to change the order of the ST Math curriculum next year*
    - Educational Consultant advises against reordering curriculum too often because it breaks the learning path

Student Engagement:

- *According to the principal, the students want to play ST Math*
    - *There are no discipline problems while the students are using ST Math*

Teacher Engagement:

- *All of the teachers remained engaged during the presentation*
    - *When educational consultant demonstrated how the program progresses from visual to symbolic, the teachers made sounds of understanding and excitement*
    - *Some teachers try teacher mode to see how the program progresses from visual to symbolic*
    - *Some teachers try other games during the presentation*
- *Participants excited about using the progress sticker chart*

Principal Engagement:

- *Principal has been tracking usage*
    - *Students have been using the program regularly*
- *Assistant Principal asks teachers to forward ST Math questions to him as well as the Educational Consultant so he can share the answers with everyone*

Technical Concerns:

- *Playback does not work on an iPad*

Creating a JiJi Culture:

- *Principal would like to build a school-wide JiJi culture*
- *Teachers are excited about a possible visit from JiJi and the JiJi Believer contest*
- *School has a bulletin board dedicated to JiJi*

ST Math Site Visit: 2-1-ES-48 [SV: AJ]
March 31, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: ESL Teacher
Location: 2-1-ES-48

Introduction: Educational Consultant and Instructional Coach from MIND Research Institute met in the school computer lab with ESL teacher during her class to set up students for ST Math software password training. This visit follows one where MIND staff modeled ST Math games with students.

Site Visit (SUMMARY)
Educational Consultant and Instructional Coach meet with ESL teacher who is aware of ST Math program. Teacher asks questions about accessing data reports to use for evaluation and how to interact with students. During the site visit 22 students were enrolled in ST Math and play games.

Student Engagement:

- *Students were attentive to Educational Consultant during instructional process*
- *Students encourage each other to complete the games*
    - *Students help each other when they notice a peer stuck on a certain problem*
    - *Students were encouraged to see this as a competition on who can complete the most games correctly within a certain time frame*
- *Students were able to grasp the concepts of fractions and measurement within the first 4 levels*
- *New student without English language skills easily grasps ST Math*
- *Students were very excited and surprised at their results at the end of the period*
    - *Most students solved over 50 puzzles in 30 minutes*
        - *Most of the puzzles students solved were connected to password training*

Teacher Engagement:

- *Teacher is visibly excited to get students enrolled in ST Math*

ST Math Site Visit: 2-1-ES-99 [SV: AJ]
March 31, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: 2017; ESL Teacher
Location: 2-1-ES-99

Introduction: Educational Consultant and Instructional Coach visit with principal and ESL teacher who want to learn more about the ST Math program within the grant for the school district. The ESL teacher did not attend district ST Math training for ESL staff. The school recently achieved mastery status, garnering a larger international student population.

Site Visit (SUMMARY):
Educational Consultant and Instructional Coach meet with ESL teacher and principal of 2-1-ES-99 in office to discuss the ST Math program, along with how it relates to the district grant. They are shown examples of how ST Math software works and engages students with JiJi, and how teachers and all students benefit from the program.

Challenges:

- *School is under pressure from the district to improve test scores and raise awareness of new mastery status*
    - *The school has a growing population of international students and language courses after gaining mastery title*

Principal Engagement:

- *Principal plans to roll out the program throughout the entire building*
    - *ST Math will start with the ESL teacher then move outward*
- *Principal wants to use a PD Day for teachers to train in using the ST Math program*

Principal Concerns:

- *Concerned about teacher buy-in*
    - *Teachers had used a previous online math program*
        - *Students had difficulty grasping math concepts*
            - *Students quickly lost interest*
            - *Teachers were frustrated by this experience with online math programs*
        - Educational Consultant suggests starting awareness with certain groups and it will eventually spread across the school.

ST Math Site Visit: 2-4-ES-74 [SV: KG]
January 14, 2015

MIND Educational Consultants: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: 3003; 2018; Three 3rd Grade Classroom Teachers; One Special Education Teacher
Location: 2-4-ES-74

Introduction:
The site visit consisted of an open Q & A session for teachers in the library, a meeting with the Math & Literacy Coach, a Data Meeting with the Principal, and a classroom visit. The educational consultant visited the same classroom twice.

Site Visit (SUMMARY):
The site visit began with a Q & A session in the school library before students arrived for the school day. The session was open to any teacher who had questions or concerns regarding ST Math. Three 3rd Grade classroom teachers and one Special Education teacher took advantage of the Q & A session opportunity along with the school's Math and Literacy Coach. While waiting for additional staff to arrive, the Math and Literacy Coach was added to receive monthly email updates from MIND. The Coach also received facilitating questions bookmarks per request.

After Q & A session, the Educational Consultant and the Coach went to a 3rd Grade classroom to work with a non-verbal student playing ST Math. This classroom visit was followed by a data meeting with the Principal and Math & Literacy Coach. The Principal had to leave, and the educational consultant and the Coach continued their discussion of challenges experienced at the school. The educational consultant then returned to the classroom visited earlier to model ST Math games with four students.

Successes:
- *Students in one classroom have a syllabus progress between 20 to 30 percent*
- *All students were rostered and using ST Math by December*
- *The classrooms that have started are really "jumping in"*

Challenges:
- *Some students not meeting the goal of two to three percent syllabus progress because they are not logging off correctly*
- *One grade has 60% of students with alerts*

Working with Data Reports and Data Frames:
- Educational consultant explains Fluency and how it collects data

- Educational consultant shows revised syllabus progress goal
    - Modified goal for school at end of the year is 75 percent
- Participants learn how to read the progress report and how to sort current objectives
- Participants learn how to read alerts
- Participants learn how to read the Student Detail Report and Trajectory
- Participants learn how to monitor the Usage Report

Making Connections:

- Participants learn about the Teacher Resource site
- Facilitating questions
- Participants learn how to use Teacher Mode
- Educational consultant explains how classroom modeling is used as a way to get students to think about their thinking and think about different strategies that they can share with their fellow students

Student Engagement:

- *Students who participated in the classroom modeling instruction did very well, and received JiJi merchandise from the educational consultant*
- *Students find ST Math fun, and said that they are learning a lot of new math*
- Educational consultant offers strategies to help non-verbal student with ST Math
    - *Student easily frustrated and shuts down*
        - Educational consultant suggests optional objectives and Teacher Mode
        - Educational consultant suggests manipulatives and motivational tools
    - *Student does not understand the concept of less and more*
        - Educational consultant suggests using the fluency model
            - To build the foundation, gain the prerequisite skills, and give the student more confidence
    - *Parent does student's homework for him*
    - *Parent wants student working at grade level*
    - *Student responds well to facilitating questions*
    - *Student responds to incentives*
        - *JiJi dog tag*

Teacher Engagement:

- *High buy-in from Staff members*
    - *Teacher took notes during classroom visit and ordered JiJi merchandise*
- *Coach plans classrooms every six weeks to help teachers facilitate*

Principal Engagement:

- *Principal has limited understanding of ST Math*
  - *Unaware of purpose of the program and how it works*
  - *Unaware of plan for the district*
- *Principal has not yet logged on to ST Math and does not have an account*
  - Educational consultant sent a request to add an account for the principal
  - Educational consultant showed principal how to navigate ST Math site

Teacher Concerns:

- *Lack of available time to use ST Math*
  - *Lack of technology and scheduling issues in terms of taking away from instruction time*
- *Difficult to reach 90 minute goal with present schedule and lack of technology*
  - Educational consultant suggest having center days
- *District is a "free for all"*
  - *Standard implementation is too loose*
  - *The principal gets to decide where the new technology goes, even though it is just for the grant*

Technical Concerns:

- *Teacher has trouble logging in to Teacher Mode*
  - Educational consultant has to find her password
- *When trying to login to e-campus it sometimes doesn't work*
- *Principal is not getting any of the educational consultants emails*
  - *Principal has not received the school progress reports from the educational consultant*
- *School still hasn't received their extra computer carts from the grant*
  - *In the district, but the school does not have them*
- *Access to technology*
  - *One cart with 20 iPads for four teachers to share per grade level*
  - *First and Second grade share one cart*

Creating a JiJi Culture:

- *Principal and the Math and Literacy Coach want to put each classroom's progress up on a tracker in the teacher lounge*
- *Teachers are planning to use JiJi certificates and a bulletin board displaying the post cards from JiJi*
- *Participants planning to give students JiJi activities during indoor recess, such as the JiJi cube puzzle and origami JiJi*

ST Math Site Visit with Classroom Modeling: 2-5-ES-83 [BP: MGC]
March 26, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: District Instructional Coach, Title 1 Teacher, classroom teacher, 4th grade students (17)
Location: 2-5-ES-83

Introduction:
MIND Instructional Coach demonstrated integrating ST Math games with specific learning objectives while working with the entire class. MIND Instructional Coach used whiteboard in addition to paper and pencil exercises.

Site Visit (SUMMARY):
At the beginning of the session, students sit on the floor in front of the whiteboard. The teacher introduces the MIND Instructional Coach who will be facilitating the session. The MIND Instructional Coach introduces a variety of puzzles to the students and facilitates the thinking process by asking a series of questions of specific students who are called up to work on the whiteboard. Later, students move to their desks to work on puzzles and receive one-on-one support from the adults in the room.

Making Connections:

- Instructional Coach shows students a variety of puzzles and guides them through the puzzles with a series of facilitating questions
    - *Students observe the puzzles, share strategies with a partner, and then share their strategy with the entire class*
- The lesson is built around the students explaining their thinking and discussing a variety of strategies with their classmates
    - Students are learning through conversation and collaboration
- *Students demonstrate thinking by translating the puzzles into math equations*
- Instructional Coach introduces another puzzle to students and sends them back to their seats to work on the puzzle
    - Students are asked to explain their thinking
- Instructional Coach discusses student thinking process – listen, think, determine whether they agree/disagree, think about thinking, compare answers
- Instructional coach asks students to indicate with their fingers if they understand, corrects misunderstandings

Student Engagement:

- *Students seem fairly engaged*
- *Some students are restless*

Teacher Engagement:

- *Teacher demonstrates concern that process of doing fractions is different from how they teach it*
    - Instructional Coach suggests that the teacher listens to the students' explanation, and if she disagrees, she can share her thinking

Technical Concerns:

- MIND Instructional Coach suggests that teacher would find a document camera useful for projecting worksheets on the whiteboard while connecting ST Math to whole class instruction

Creating a JiJi Culture:

- *School has JiJi Bulletin Board*

APPENDIX

Math Matters: Knowledge Capture Field Observation Reports (1)

Fairfield and Franklin Counties

Middle Schools (All Districts)

Note: Field Observation Reports are coded to assure participant anonymity. For example, codes appear as a series of numbers and letters (1-9-MS-33) where the first number represents the county, the next number indicates the district, the letters refer to grade level (e.g., elementary school (ES); middle school (MS); and high school (HS); and K-12 (K-12-ALL), and the last number in the series signifies the school building.

ST Math Site Visit: 1-1-MS-10 [SV: LB]
January 13, 2015

MIND Educational Consultant: Twana Young
Participants: 2019; RTI Tutor; 10 teachers
Location: 1-1-MS-10

Introduction:

Three teachers from the building were sent to training at the beginning of the school year so they could train other teachers within the school. There was limited training time within the school, but some teachers attempted implementation. Additional teachers attended a second training session with a different Educational Consultant. Access to the ST Math site and web resources were limited because of a DDOS attack. ST Math time is minimal in the school. The main focus has been RTI students, and these students have been making some progress. In other classes, students are allowed ST Math time after they have finished their classwork.

Since this was scheduled to be a data meeting, the Educational Consultant expected to meet with ST Math and building leaders only; however, the visit instead began with a brief meeting with the math teachers to review data reports and some of the resources on the website.

Site Visit (SUMMARY):

This site visit began with an impromptu meeting with the math teachers in the school. During the meeting the Educational Consultant demonstrated how to read data reports. She also discussed some of the resources available on the website, including a list of Common Core standards and which games strengthen those standards. During the first meeting, teachers were very quiet because they haven't fully implemented the program and have little data to discuss.

For the second half of the site visit, the Educational Consultant met with the intervention teacher to review data and to address specific questions about implementation.

Successes:

- *RTI students have seen some successes based on their progress in ST Math*
- *Most students like the program*

Challenges:

- *Implementation has been inconsistent in the school*
- *Few of the math teachers have received full training*

- *Often RTI students are being monitored by non-math teachers during ST Math time*
    - *Some of these teachers are unaware that they should be facilitating instead of giving students answers*
    - *The intervention teacher pulls aside struggling students and works with them individually on iPads*
- *Some students were having trouble maintaining their attention for a full fluency session*
    - *The intervention teacher reduced the length time for fluency and students have been enjoying it much more*
- *Teachers are having difficulty supporting students who are stuck*
- *The school hasn't received Chrome books ordered with grant funds*
- *The RTI student roster changes quarterly with students being added and subtracted from the list according to test results*
- *The Intervention Teacher has been given the reins for ST Math*
    - *Little interference or support from the principal*
- *Some of the resources supplied by the Education Consultant haven't been passed along to the Intervention Teacher*
- *Intervention teacher is having difficulty monitoring student progress and knowing what data to focus on*
    - The goal is to have 2-3% syllabus progress per week
    - *Even the intervention students are having trouble reaching goals because of limited access*
    - Education Consultant recommends focusing on the data from his own students rather than looking at the full building because of the limited implementation

Working with Data Reports and Data Frames:

- Educational Consultant reviews some of the sections of the data reports, including syllabus progress, standards mastery, objectives, and fluency
- Educational Consultant reviews the major alerts, including high number of tries, low time on task, level cancelling, and decreasing quiz score

Making Connections:

- At the middle school level, ST Math includes intervention modules and grade level content
    - Students take a diagnostic test and their curriculum is adjusted to include intervention modules when necessary
- Teachers can assign homework for students
    - This can help to overcome the limited time for ST Math use during class time

Student Engagement:

- *Students like the program*
- *The intervention teacher believes students would benefit from monitoring their own progress with syllabus progress tracking sheets*
- *The Intervention Teacher believes students would also benefit from using the Stuck Student form, especially during sessions when he cannot be present*

Teacher Engagement:

- *Implementation and buy-in has been limited*
- *Many teachers are trying to find time but don't want to sacrifice instruction time*
- Teachers could benefit from having a scheduled meeting where they could play games and learn the process of ST Math

Teacher Concerns:

- *Teachers are concerned about sacrificing instruction time for ST Math*

Technical Concerns:

- *There have been issues with the computers caching school activation codes in Internet Explorer*
    - *Chrome works well with ST Math, but a default homepage can't be set in Chrome*
    - Educational Consultant will contact Technical Support

Creating a JiJi Culture:

- *Intervention Teacher is trying to make a rewards system around ST Math*

APPENDIX

Math Matters: Knowledge Capture Field Observation Reports (2)

Fairfield and Franklin Counties

K-12 (All Districts)

Note: Field Observation Reports are coded to assure participant anonymity. For example, codes appear as a series of numbers and letters (1-9-MS-33) where the first number represents the county, the next number indicates the district, the letters refer to grade level (e.g., elementary school (ES); middle school (MS); high school (HS); and K-12 (K-12-ALL), and the last number in the series signifies the school building.

ST Math Follow-up Training: 1-5-K-12-ALL [SV: LB]
January 13, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: 10 special education teachers, ranging from K-12
District Level Administrators: 4 1-5-ALL-ALL staff members
Location: 1-5-K-12-ALL

Introduction:

This session was a follow up session to address specific questions and concerns of Special Education teachers. Ten teachers were present, with one leaving early and one arriving late. As teachers filtered into the session, a district administrator circulated a sign-in sheet and distributed iPad Minis to each of the participants. Chrome books were already placed at each of the seats. Access to both devices enabled teachers to practice using ST Math in various formats, as the teachers work in multiple buildings with a range of available technology. A district administrator gave an introductory speech and introduced the other district personnel present. She shared a story about how one teacher has a JiJi pencil and the students get very excited about using it. The IT person walked through accessing ST Math on the iPad Minis.

On each table, the Educational Consultant placed a yellow "brain dump" paper for teachers to list questions and instructional methods that they would like to implement. The Educational Consultant also provided an "Analyzing Reports Guide" which helps teachers develop a plan for addressing the needs of students according to their data reports.

Site Visit (SUMMARY):

Following introductions and announcements from the district personnel, the Educational Consultant introduced herself, gave her background, provided her contact information to the group, and reviewed the session's agenda.

- Successes and challenges
- Understanding who needs help
- Unpacking data
- Break
- Utilizing teacher mode
- ST Math in the Classroom
- Resources and Support
- Wrap up/ Questions

At the conclusion of the training session, teachers were introduced to a district administrator who would be visiting schools. They were also asked to complete a brief survey.

Successes:

- *Student had attendance issues until ST Math was implemented*
  - *Now student is engaged with the program and attendance has improved*
- *Students look forward to ST Math time*
  - *Teacher bought stuffed penguins on Amazon*
  - *Students like having JiJi watch them*
- *One teacher has a nonverbal student who can communicate math strategies using ST Math*
- *One of lowest performing students learned password first and has most focus when doing ST Math*
- *Vast majority of students have learned their passwords without issues*
- *Teacher likes Smart Board option*
  - *One "antsy" student can use the smart board when he's having issues staying seated*
  - *Other students are remain focused on their games even though they can see the board*

Challenges:

- *Autistic student does not like to do new things*
  - *Each new activity causes issues until she figures it out*
    - *She excels once she figures it out*
  - Give students manipulatives (game mats) to help make sense of what's on the screen
    - Teachers can ask questions about what they're going to do and what they think will happen
    - Encourages thinking and being reflective of thinking
  - Educational Consultant discusses sheet asking "I notice" and "I wonder"
- *One student won't think through and make attempts*
  - *Student watches feedback and does what it says but doesn't learn from it*
  - Educational Consultant recommends using "I notice" and "I wonder" sheet
  - Use teacher mode to help him think through process without losing JiJis
- *Some kids get upset and won't try – fear of failure*
  - Teacher mode might help students take risks without anxiety of losing JiJis

- *Kindergarteners learned 8 characters, but can't learn the rest*
    - Sometimes students don't realize that they should be learning the rest when the second round of password training begins
    - *One mom gets angry that student can't log in at home with the 8 character password*
    - Educational Consultant will send teacher full passwords for two students having issues
- *Full inclusion students haven't progressed far in the program*
    - *Students haven't been using ST Math for very long, and have not taken diagnostic*
    - *Emotional issues – get frustrated after a few minutes*
- *Some students haven't learned password yet*
    - *Student gets upset if teacher enters it, but haven't been able to learn it*
    - *One teacher wrote down words for the pictures*
    - *One student struggles to read and has memory issues*
        - *Teacher tried to import pictures of password so the student is building repetition of password*
- *Technology challenges*
    - *Losing connection*
    - *Lack of access to site because of DODS attacks*

Monitor

- Discussion of alerts
    - Teachers write down student alerts on the "Analyzing Reports Guide" and brainstorm ideas to resolve them
    - *One student likes stuffed animals, but the stuffed animal blocks the screen so the student can't see feedback*
        - *Student improved when the teacher created a special spot for the stuffed animal*
    - *Teacher mentions student who is stuck on introduction objectives*
        - *She sits with student and prompts him to think before he clicks*
    - *One student does not take ST Math seriously and has shown no progress in the program*
- Educational consultant discusses how to read student reports

Connect

- Demonstration of playback mode
    - *Teachers think it could be beneficial*
    - Not available on iPads

    - Teachers role play using playback mode with students
- Educational Consultant discusses using ST Math as a full class or in small groups
    - Educational Consultant shows video demonstrating whole class instruction with ST Math
- Educational Consultant demonstrates how to access the Common Core Alignment guide on ST Math
    - Useful to help fill in missing skills
    - *Teacher is concerned that student won't reach certain key concepts*
        - Educational Consultant suggests front loading the curriculum to build skills and test driving at a lower grade
- Discussion of Fluency and how to find worksheets and resources online
    - *Teacher asks whether worksheets would help student struggling with addition*
        - Addition is the default for lower grades and multiplication is the default for higher grades, but teacher can change the default to fill in skills

ST Math Training part 1: 2-1-K-12-ALL [SV: LB]
March 25, 2015

MIND Educational Consultant: Twana Young
MIND Instructional Coach: Marti Klingshirn
Participants: 1 elementary ESL teacher, 1 MS/HS ESL teacher, 3 ESL teacher aides
District Level Administrator: 3007
Location: 2-1-K-12-ALL, District Administration Building

Introduction:

This training session took place at the district administration building. This was a part 1 training session with elements of part 2 incorporated into the session. The room was laid out with tables facing a Smart board. The Educational Consultant set out training manuals, sticker posters, facilitation cards, and game mats for the participants. Chrome books were also set out for the participants to use. Only one of the participants identified themselves as having prior training in 2014. Her school recently received technology for implementation, so she opted to retrain in ST Math. Several of the participants shared that they were nervous about their computer skills.

Training (SUMMARY)

The educational consultant began the session by explaining her connection to schools in the area, and provided her contact information. While the Educational Consultant explained her background, the District Administrator passed around a card made by students thanking the district for ST Math and for the Chrome books. The Educational Consultant began the session by asking the participants about their goals with the program. The structure of the training was similar to other training part 1 sessions - **Learn**, **Teach**, **Monitor**, and **Connect**, but because the session had only 5 participants, there was greater opportunity to address specific teacher concerns throughout the session.

Goals:

- *Participants would like to use ST Math as a way of bridging English language skills with math skills*
    - The program gives students an opportunity to learn math visually while developing language skills
- *Make connections to the "real world"*
- *Monitor student progress*
- *Learn strategies to solve problems*
- *Build a feeling of confidence as success*

Learn

- Educational Consultant briefly discussed the perception action cycle

- ST Math teaches by providing informative feedback for students
- Participants learn what each alert means and what they should do

Teach

- Trainer explains teacher role as bridge between concepts developed in ST Math and concepts in the classroom, especially with the language piece
- Participants see how students undergo password training
- Implementation recommendations – videos, establishing rules, providing manipulatives, logging-off correctly
- Trainer explains how to put new students in the program
- The teacher/aide is a facilitator
    - Encourage students to pay attention to the feedback and think about their learning process
    - Encourage students to learn and develop their math language skills
- Teachers should aim for 90 minutes of ST Math time per week

Monitor

- Participants learn the meanings of the different status frames
- Participants learn about student progress reports

Connect

- *One participant wanted to know how to transfer ST Math to "real world" skills*
    - Teachers can build activities around the skills learned with ST Math
        - Students can make their own games
        - Use "projects for early finishers" as class activities
- Education Consultant demonstrates teacher mode
- Education Consultant explains Fluency
- Teacher resource site – webinars, syllabus, worksheets, game mats, support

Participant Concerns:

- *One participant has a "pre-functional" student who is well below the middle school curriculum*
    - Middle school supplement and high school intervention are tailored to student needs based on diagnostic test
    - Cannot access elementary curriculum with MS/HS license
    - Educational Consultant might be able to negotiate an exception for one student
    - Divide students by ability and build curriculum for them
- *Some participants were concerned about their students developing language skills with a program that uses no language*
    - The teacher should encourage students to explain what they are learning and their strategies to help develop language skills

- *One participant works with targeted students and was concerned about how to choose which students to schedule for ST Math time*
    - Education Consultant recommends targeting as many as possible, perhaps creating an after school program or summer school to increase access
        - Every math teacher at the school has access to the program
- *Participant asks if ST Math works with other programs*
    - Should not conflict with other programs

Participant Engagement:

- *One participant openly admitted that she does not like computer games and would have difficulty getting her students excited about using ST Math*
    - *By the end of the session, she was seeking out games to play and asking questions about how to use them with her students*
- *The participants remained engaged throughout the presentation*
    - *One participant took notes*
    - *A few participants reviewed the syllabus section of the website near the end of the presentation*
    - *Some participants scanned through the available games*

Math Matters:
MIND Research Institute
Quarterly Report on ST Math

April 30, 2015

MIND Research Institute
Appendix
ST Math April Quarterly Report Summary

Section 1 - Project Level Overview of ST Math Implementation Progress

The progress data and event activity presented in this report is based ST Math program usage and the associated professional services delivered in support of the program as of April 3, 2015. Currently, 80 of the 100 schools participating in the project are actively implementing the ST Math program with a total 24,031 students from Kindergarten through High School across the 10 districts/organizations participating. This total represents a 14.37% increase (3,020) in the number of students that have been enrolled in the ST Math program since the beginning of January. Liberty Union-Thurston School District had a 120% increase by adding an addition 258 students to the use of ST Math over the past 3 months. Columbus City and Worthington School Districts also exhibited a large expansion of students using the program by posting 44% and 37% increases in overall student numbers respectively.

The Math Matters project currently has 917 teachers with have active students utilizing various ST Math programs. This total represents a 13.34% increase in the number of teachers who are implementing the ST Math program with students since the beginning of January. Worthington School District added the greatest overall number of teachers to the program with the addition of 51 staff members who have students actively using ST Math. Liberty Union-Thurston and Columbus City School Districts also increased their teacher totals to support their overall student growth by adding 13 and 10 teachers respectively.

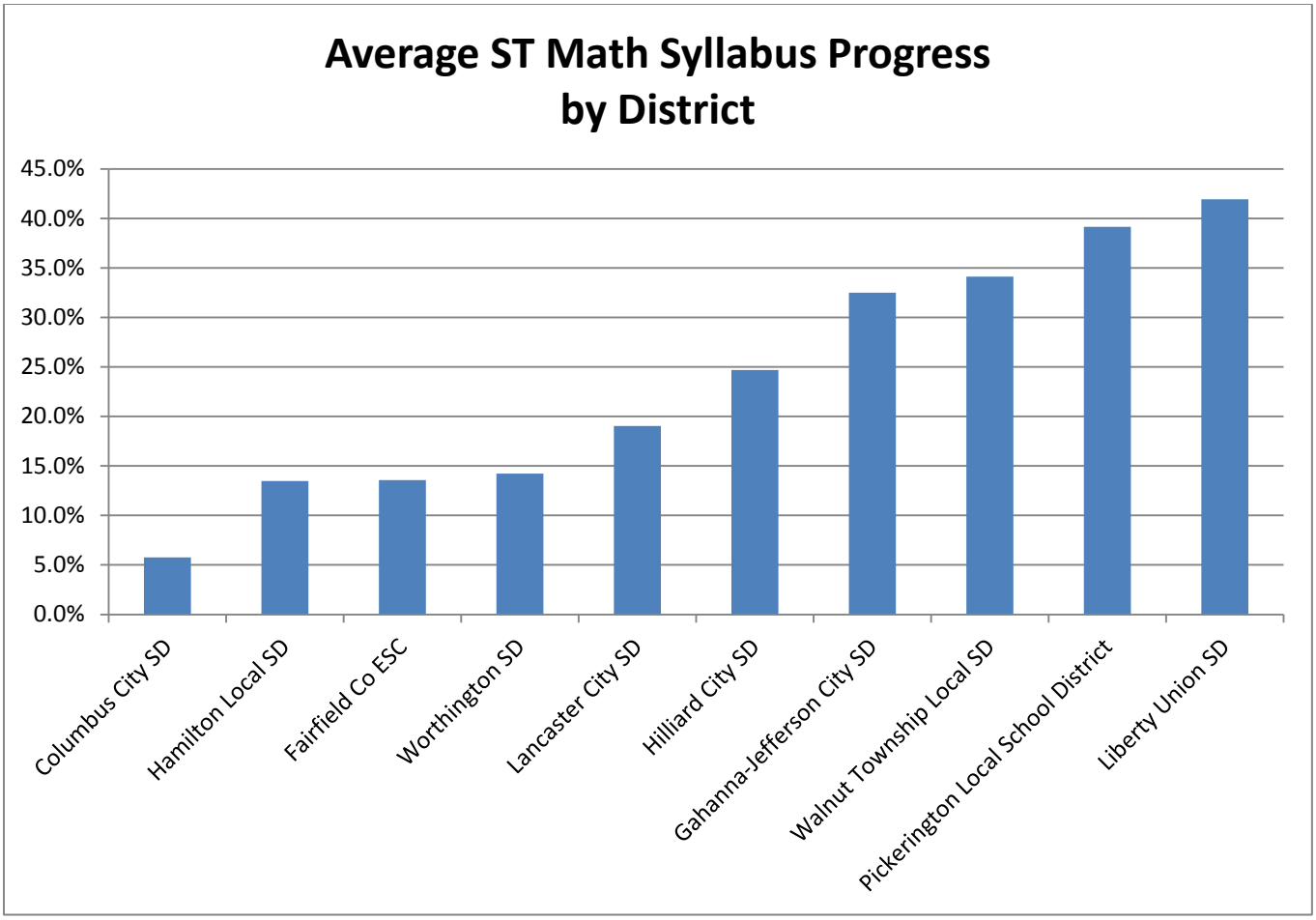
ST Math Progress

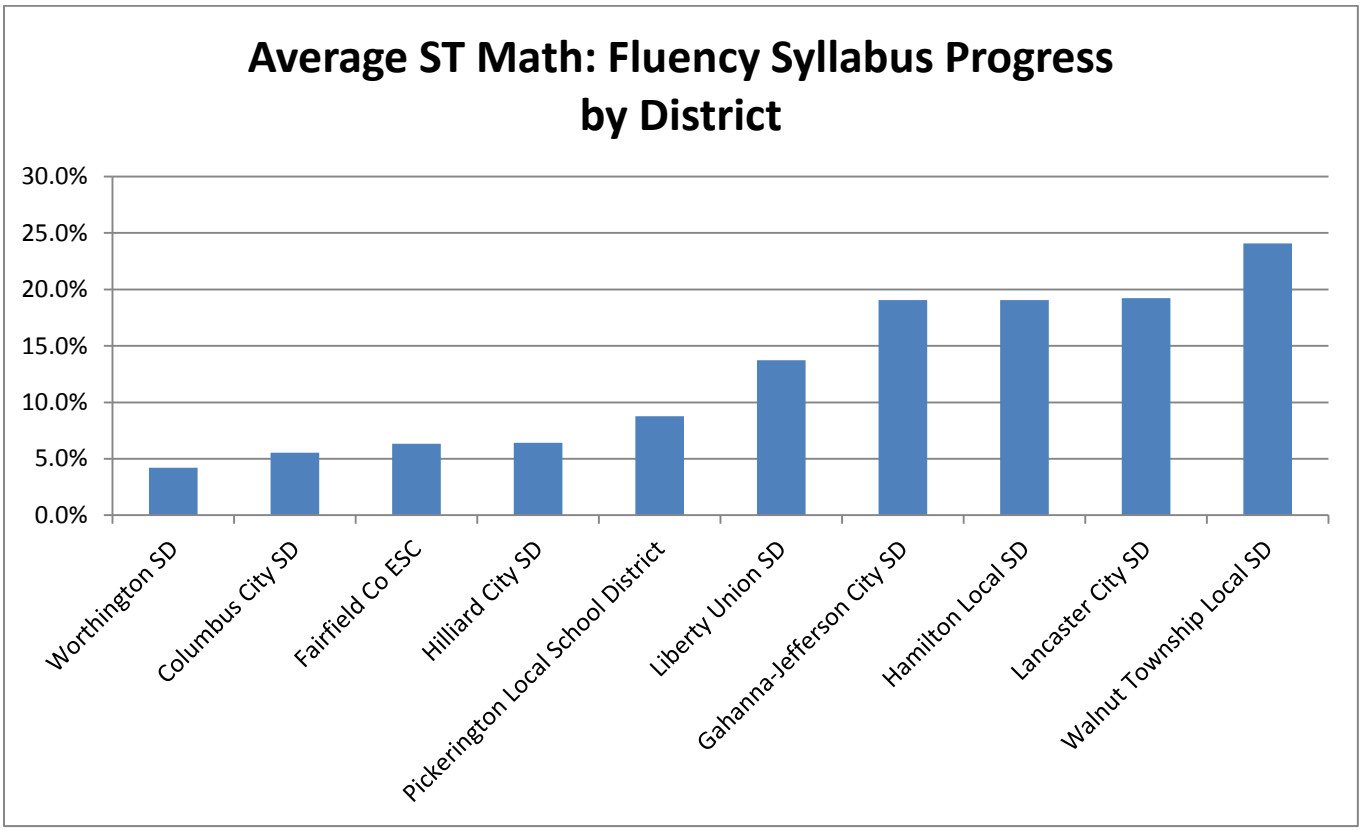
Average Syllabus Progress is the measure used to track the percentage of assigned grade level content that a student has completed within the ST Math program. Our suggested usage protocol for the program is 60 minutes per week for grades K-1 and 90 minutes per week for grades 2-6. These times can be met in 2-3 sessions per week, ideally scheduling sessions for no fewer than 30 minutes at a time. This minimum time allows for students sufficient time to thoroughly work through puzzles, games, or levels that present a significant challenge. With the ultimate goal of completing 100% of the assigned grade level content by the end of the year, schools should strive to reach 1% Average Syllabus Progress per Lab Login or 2-3% Average Syllabus Progress per week. As the following table titled *ST Math Progress by Grade* shows, Kindergarten and First Grade students are, on average, exceeding our target of 1% progress per lab login with the remaining Elementary grade levels (2-6) progressing at between 0.6% and 0.8% per lab login.

It is also important to recognize the different progress expectations between the *ST Math K-6* curriculum and our intervention programs being utilized in grades 6-HS, *Middle School Supplement* (MSS) for grades 6-8 and *High School Intervention* (HSI). These programs begin by providing the student a diagnostic that when completed may assign content below grade level as necessary for students with skill deficits below their current grade level. This individualization of assigned content based on need therefore creates the possibility of a substantial increase in the overall amount of content possibly assigned. It is common for Progress per Lab Login to be lower than 1% for students using these intervention levels within the ST Math program, as is the case with the MSS/HSI averages shown on the *ST Math Progress by Grade* table that follows.

ST Math: Fluency Progress

In addition to ST Math's grade level content all schools participating in the Math Matters project have access to the ST Math: Fluency program. ST Math: Fluency helps students achieve fact fluency (+, -, x, ÷) by incorporating adaptive training techniques, informative feedback, and actively controlled visual proofs. In recent months (since January 2015) there has been a substantial increase in the number of students who have used Fluency content (about 1/3 of all students). In several schools this use has been intentional as a precursor to student's regular use of ST Math grade level content or in some cases as an activity for early finishers or use at home. In most cases any use of Fluency has likely been unintentional due to the fact that it is accessible to students in ST Math but active promotion of this particular component nor specific training have been rolled out in Year 1 of the Math Matters project. As schools have inquired about Fluency, MIND's Education Consultants have provided the basic information regarding availability and access to this module. (The district averages for ST Math: Fluency can be found on page 4.)


Average ST Math Syllabus Progress by District
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Columbus City SD
Hamilton Local SD
Fairfield Co ESC
Worthington SD
Lancaster City SD
Hilliard City SD
Gahanna-Jefferson City SD
Walnut Township Local SD
Pickerington Local School District
Liberty Union SD


Average ST Math: Fluency Syllabus Progress by District
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Worthington SD
Columbus City SD
Fairfield Co ESC
Hilliard City SD
Pickerington Local School District
Liberty Union SD
Gahanna-Jefferson City SD
Hamilton Local SD
Lancaster City SD
Walnut Township Local SD

Breakdown of individual district progress by school and grade level is provided in Section 3. Along with the district specific ST Math Progress Data is a District Summary highlighting relevant background information on implementation, challenges faced, focus areas, identified next steps, and a history of MIND service activities.

ST Math Progress Tables – Column Definitions

Students – the total number of students that are actively using ST Math

Average Logins – the average number of times that students have logged into ST Math

Average Syllabus Progress – the average % of ST Math syllabus content that has been completed by students

Average Syllabus Progress per Login – the average % of ST Math syllabus content being completed per student login to ST Math

ST Math Progress by District

	Students	Average Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Columbus City SD	1378	12.9	5.8	0.4
Fairfield Co ESC	76	31.9	13.6	0.4
Gahanna-Jefferson City SD	399	100.3	32.5	0.3
Hamilton Local SD	1447	14.9	13.5	0.8
Hilliard City SD	6495	32.2	24.7	0.9
Lancaster City SD	3932	31.2	19.0	0.6
Liberty Union- Thurston SD	473	48.8	41.9	0.9
Pickerington Local SD	4962	48.1	39.2	0.9
Walnut Township Local SD	306	45.2	34.1	0.9
Worthington SD	4563	17.4	14.2	0.8
Total	**24031**	**32.0**	**23.6**	**0.8**

ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Kindergarten	2838	22.0	25.1	1.3
First Grade	3404	30.7	29.9	1.1
Second Grade	3540	36.4	24.3	0.7
Third Grade	3379	37.9	27.5	0.8
Fourth Grade	3096	37.3	25.7	0.7
Fifth Grade	3177	31.8	24.1	0.8
Sixth Grade	1445	42.7	27.0	0.6
Sixth Grade MSS	705	39.7	14.1	0.2
Seventh Grade MSS	1043	24.8	5.9	0.2
Eighth Grade MSS	1070	9.7	2.8	0.3
High School Intervention	334	5.9	1.5	0.3
Total	**24031**	**32.0**	**23.6**	**0.8**

Active ST Math Teachers – The following table lists the number of teachers per school/district that currently have students actively using the ST Math program. The number of teachers using ST Math per school may vary widely based on the specific implementation plans decided upon at the school or district level. In many cases there are schools that have targeted a specific set of grade levels and in some cases specific subsets of their student population such as English Language Learners or Special Education students. Please note the key following this table that identifies schools/districts in which these implementation variations may occur.

District	School Name	Teachers
COLUMBUS CITY SCH DISTRICT*	INNIS ELEMENTARY SCHOOL	9
COLUMBUS CITY SCH DISTRICT*	NORTHTOWNE ELEMENTARY SCHOOL	5
COLUMBUS CITY SCH DISTRICT*	CASSADY ALT ELEMENTARY SCHOOL	3
COLUMBUS CITY SCH DISTRICT*	JOHNSON PARK MIDDLE SCHOOL	3
COLUMBUS CITY SCH DISTRICT*	MIFFLIN ALTERNATIVE MIDDLE SCH	3
COLUMBUS CITY SCH DISTRICT*	COLUMBUS GLOBAL ACADEMY	2
COLUMBUS CITY SCH DISTRICT*	GABLES ELEMENTARY SCHOOL	2
COLUMBUS CITY SCH DISTRICT*	MEDINA MIDDLE SCHOOL	2
COLUMBUS CITY SCH DISTRICT*	WEDGEWOOD MIDDLE SCHOOL	2
COLUMBUS CITY SCH DISTRICT*	BROADLEIGH ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	BURROUGHS ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	EAKIN ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	EAST LINDEN ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	FAIRWOOD ALT ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	FOREST PARK ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	HUBBARD MASTERY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	LINDEN STEM ACADEMY	1
COLUMBUS CITY SCH DISTRICT*	MIFFLIN HIGH SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	NORTH LINDEN ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	NORTHLAND HIGH SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	SALEM ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	SIEBERT ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	VALLEY FORGE ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	WOODCREST ELEMENTARY SCHOOL	1
COLUMBUS CITY SCH DISTRICT*	AVALON ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	BRIGGS HIGH SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	CRANBROOK ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	DEVONSHIRE ALT ELEM SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	EAST COLUMBUS ELEMENTARY SCH	0
COLUMBUS CITY SCH DISTRICT*	EAST HIGH SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	EASTHAVEN ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	GEORGIAN HEIGHTS ALT ELEM SCH	0
COLUMBUS CITY SCH DISTRICT*	HIGHLAND ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	HILLTONIA MIDDLE SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	OAKMONT ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	SCOTTWOOD ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	SULLIVANT ELEMENTARY SCHOOL	0

District	School Name	Teachers
COLUMBUS CITY SCH DISTRICT*	WOODWARD PARK MIDDLE SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	WALNUT RIDGE HIGH SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	WEST BROAD ELEMENTARY SCHOOL	0
COLUMBUS CITY SCH DISTRICT*	WEST HIGH SCHOOL	0
	Total	**46**
FAIRFIELD CO ED SERVICE CENTER**	FAIRFIELD CO ED SERVICE CENTER	13
	Total	**13**
GAHANNA-JEFFERSON PUBLIC SD	GAHANNA MIDDLE SCHOOL-WEST	8
	Total	**8**
HAMILTON LOCAL SCHOOL DISTRICT ***	HAMILTON ELEMENTARY SCHOOL	38
HAMILTON LOCAL SCHOOL DISTRICT ***	HAMILTON MIDDLE SCHOOL	4
HAMILTON LOCAL SCHOOL DISTRICT ***	HAMILTON INTERMEDIATE SCHOOL	0
	Total	**42**
HILLIARD CITY SCHOOL DISTRICT	BROWN ELEMENTARY SCHOOL	23
HILLIARD CITY SCHOOL DISTRICT	HILLIARD HORIZON ELEM SCHOOL	23
HILLIARD CITY SCHOOL DISTRICT	HILLIARD CROSSING ELEM SCHOOL	22
HILLIARD CITY SCHOOL DISTRICT	RIDGEWOOD ELEMENTARY SCHOOL	22
HILLIARD CITY SCHOOL DISTRICT	BEACON ELEMENTARY SCHOOL	20
HILLIARD CITY SCHOOL DISTRICT	DARBY CREEK ELEMENTARY SCHOOL	20
HILLIARD CITY SCHOOL DISTRICT	HOFFMAN TRAILS ELEM SCHOOL	20
HILLIARD CITY SCHOOL DISTRICT	J W REASON ELEMENTARY SCHOOL	20
HILLIARD CITY SCHOOL DISTRICT	NORWICH ELEMENTARY SCHOOL	19
HILLIARD CITY SCHOOL DISTRICT	SCIOTO DARBY ELEMENTARY SCHOOL	19
HILLIARD CITY SCHOOL DISTRICT	WASHINGTON ELEMENTARY SCHOOL	19
HILLIARD CITY SCHOOL DISTRICT	BRITTON ELEMENTARY SCHOOL	18
HILLIARD CITY SCHOOL DISTRICT	AVERY ELEMENTARY SCHOOL	16
HILLIARD CITY SCHOOL DISTRICT	ALTON DARBY ELEMENTARY SCHOOL	15
	Total	**276**
LANCASTER CITY SCHOOL DISTRICT	CEDAR HEIGHTS ELEM SCHOOL	20
LANCASTER CITY SCHOOL DISTRICT	TARHE ELEMENTARY SCHOOL	20
LANCASTER CITY SCHOOL DISTRICT	EAST ELEMENTARY SCHOOL	16
LANCASTER CITY SCHOOL DISTRICT	MEDILL ELEMENTARY SCHOOL	15
LANCASTER CITY SCHOOL DISTRICT	WEST ELEMENTARY SCHOOL	13
LANCASTER CITY SCHOOL DISTRICT	SOUTH ELEMENTARY SCHOOL	12
LANCASTER CITY SCHOOL DISTRICT	SANDERSON ELEMENTARY SCHOOL	11
LANCASTER CITY SCHOOL DISTRICT****	GENERAL SHERMAN JR HIGH SCHOOL	10
LANCASTER CITY SCHOOL DISTRICT	TALLMADGE ELEMENTARY SCHOOL	10
LANCASTER CITY SCHOOL DISTRICT****	THOMAS EWING JR HIGH SCHOOL	7
LANCASTER CITY SCHOOL DISTRICT****	LANCASTER SENIOR HIGH SCHOOL	1
	Total	**135**
LIBERTY UNION-THURSTN SCH DIST	LIBERTY UNION ELEMENTARY SCH	19
	Total	**19**

District	School Name	Teachers
PICKERINGTON LOCAL SCHOOL DIST	TOLL GATE ELEMENTARY SCHOOL	27
PICKERINGTON LOCAL SCHOOL DIST	SYCAMORE CREEK ELEM SCHOOL	26
PICKERINGTON LOCAL SCHOOL DIST	FAIRFIELD ELEMENTARY SCHOOL	20
PICKERINGTON LOCAL SCHOOL DIST	TUSSING ELEMENTARY SCHOOL	20
PICKERINGTON LOCAL SCHOOL DIST	PICKERINGTON ELEMENTARY SCHOOL	18
PICKERINGTON LOCAL SCHOOL DIST	HERITAGE ELEMENTARY SCHOOL	15
PICKERINGTON LOCAL SCHOOL DIST	VIOLET ELEMENTARY SCHOOL	15
PICKERINGTON LOCAL SCHOOL DIST	HARMON MIDDLE SCHOOL	13
PICKERINGTON LOCAL SCHOOL DIST	DILEY MIDDLE SCHOOL	12
PICKERINGTON LOCAL SCHOOL DIST	TOLL GATE MIDDLE SCHOOL	9
	Total	**175**
WALNUT TWP LOCAL SCHOOL DIST	MILLERSPORT ELEMENTARY SCHOOL	12
	Total	**12**
WORTHINGTON SCHOOL DISTRICT	SLATE HILL ELEMENTARY SCHOOL	21
WORTHINGTON SCHOOL DISTRICT	WILSON HILL ELEMENTARY SCHOOL	19
WORTHINGTON SCHOOL DISTRICT	EVENING STREET ELEM SCHOOL	16
WORTHINGTON SCHOOL DISTRICT	WORTHINGTON HILLS ELEM SCHOOL	16
WORTHINGTON SCHOOL DISTRICT	COLONIAL HILLS ELEM SCHOOL	15
WORTHINGTON SCHOOL DISTRICT	BLUFFSVIEW ELEMENTARY SCHOOL	14
WORTHINGTON SCHOOL DISTRICT	BROOKSIDE ELEMENTARY SCHOOL	14
WORTHINGTON SCHOOL DISTRICT	WORTHINGTON PARK ELEM SCHOOL	14
WORTHINGTON SCHOOL DISTRICT	GRANBY ELEMENTARY SCHOOL	12
WORTHINGTON SCHOOL DISTRICT	WORTHINGTON ESTATES ELEM SCH	11
WORTHINGTON SCHOOL DISTRICT	LIBERTY ELEMENTARY SCHOOL	10
WORTHINGTON SCHOOL DISTRICT*****	MCCORD MIDDLE SCHOOL	7
WORTHINGTON SCHOOL DISTRICT*****	WORTHINGWAY MIDDLE SCHOOL	7
WORTHINGTON SCHOOL DISTRICT*****	KILBOURNE MIDDLE SCHOOL	5
WORTHINGTON SCHOOL DISTRICT	THOMAS WORTHINGTON HIGH SCHOOL	4
WORTHINGTON SCHOOL DISTRICT	WORTHINGTON KILBOURNE HIGH SCH	4
WORTHINGTON SCHOOL DISTRICT*****	PHOENIX MIDDLE SCHOOL	2
WORTHINGTON SCHOOL DISTRICT	LINWORTH ALTERNATIVE HIGH SCH	0
	Total	**191**
	Grand Total	**917**

***Columbus City SD** - ST Math participants include only ESL Department teachers and teacher aides as per district plan to focus ST Math use with students being served by the ESL Department

****Fairfield Co ED Service Center** - ST Math participants include only Special Education teachers who are staffed at the schools in the county through the Fairfield County ESC

*****Hamilton Local SD** - ST Math participants include only elementary teachers K-3 and middle school math teachers. Teachers at the intermediate school are deferring the use of the program to the 2015-16 year due to limited devices and technology issues.

******Lancaster City SD** - ST Math participants at the junior high include only some of the math teachers and the Response to Intervention teacher. The high school ST Math participant is the Intervention teacher.

*******Worthington SD** - ST Math participation at the middle schools has involved teachers who have elected to use the program. During the 2015-16 school year, the district has accounted for the required time and is designing a math extension course to use ST Math.

Section 2 – MIND Professional Development Activities

The MIND Research Institute has continued to deliver timely professional development offerings to schools based on their desired Professional Development plan, their progress through the initial stages of implementation, and on specific needs as determined through consultation with staff and administration. MIND has been flexible in offering our partner schools the necessary professional development content through a delivery mode that suits their current needs. In addition to the local Education Consultant in the Columbus area, MIND has brought in additional personnel from across the country on multiple occasions to support schools when the demand for assistance has been high. The following are descriptions of MIND events that may be found in the Event History for individual districts:

- **Intro to ST Math Part 1** – initial training focusing on the background of ST Math, analysis of ST Math games, content structure, start-up procedures, roles & responsibilities, and basic reporting
- **Intro to ST Math Part 2 –** follow-up training generally held 1-2 months after startup that concentrates on the utilization of reports, facilitation with teacher mode, and making connections between ST Math and classroom instruction (content also able to be covered via Webinars)
- **Site Visit –** onsite visits based on individual needs expressed by schools which may include any of the following: start-up support during first day in the lab, technical troubleshooting, modeling of student facilitation strategies, and making classroom connections with ST Math. See description below
- **Data Meeting –** meetings most likely scheduled with school/district leadership to review the school level data in order to identify and plan to address any impediments to successful implementation of ST Math
- **Self-Guided Courses –** self-paced online courses available on the ST Math Teacher Resource Site that comprise the necessary content knowledge needed to begin implementing ST Math

Classroom Modeling Activity

During the 2014-15 school year representatives from MIND Research Institute have been supporting the implementation of the ST Math program across all schools in the Math Matters Project. Schools within each of the districts have had varied levels of implementation. To help make the implementation as successful as possible, a level of customization has been provided to the schools. This has allowed the Education Consultant and other representatives from MIND to provide targeted support based on the specific needs of the schools.

Using this approach to meeting the needs of individual schools is a tiered effort that will span across five years of the grant. This customized support includes classroom modeling and workshops to specifically address areas of: blended learning, the Common Core, Mathematical Practice Standards and lesson design. Additional workshops are scheduled to begin this summer that provide the added opportunity for teachers to earn graduate credit. These trainings will focus on how to be intentional in the instructional design for blended learning and how to increase the impact of integrating ST Math in the classrooms. In addition, lesson design, informal assessment, intentional math talk and the integration of the Math Practices are part of the training plan.

A variety of modeling strategies have been employed in order to help teachers learn how to effectively implement the ST Math program as a supplement to their classrooms curriculum. A majority of the focus is on understanding how to facilitate student thinking through questioning while the students are engaged in the ST Math puzzles. To support this need, representatives from MIND visit classrooms and work with the teachers, model how to facilitate struggling students and how to deepen students' mathematical thinking through questioning. During these modeling visits, teachers also learn and practice strategies that make student's thinking visible. The Education Consultant has developed tools for use in the classroom to support teachers in making students thinking visible. The importance of visible thinking is that it helps students reflect on their thought processes, extend their thinking, deepen their understanding and engage them in active processing. This is an important part of understanding the conceptual application of the mathematics students experience in ST Math.

Another level of modeling that has been provided this year is through professional development. The majority of the districts have been given an overview as part of the Intro to ST Math Part 2 training. This overview has engaged them in the process of thinking through and observing a lesson on video in which a teacher is using an ST Math puzzle as part of their mathematics instruction.

For a few schools that were ready to move on to lesson development and thoughtful consideration of the mathematics practice standards in lesson design, a professional development training was developed and customized for these schools. In one case it has served as the follow-up to an in class modeling experience. This training aims to engage teachers in the thinking process of planning a lesson with ST Math. It takes teachers through the planning of a lesson as a teacher and as a student. This type of modeling allows teacher access to both the teacher and student experience in a scaffolded approach based on the readiness of the local staff and school. As teachers develop more experience and comfort with the integration of ST Math as an instructional tool, an increasing focus will be placed on delivering customized trainings of this type with a goal of supporting schools in their implementation of ST Math based on local needs.

The final modeling experience provided to some of the participating schools has been through classroom modeling of a whole group or small group lessons. These lessons have been presented as a way to demonstrate for teachers the impact ST Math can have as part of their lesson design. All of these lessons have been modeled in elementary schools and have been done by request. Many of the schools in the Math Matters grant are implementing new curriculums and other programs this year in addition to ST Math and are not yet ready for this next level. The representatives from MIND are working very hard to be mindful of all that teachers are managing and are listening and observing teachers, schools and districts to determine readiness levels.

The overall goal is to help teachers build an instructional model that will positively impact student achievement. In year two when school have the benefit of experience with ST Math and the desire for additional classroom modeling blooms, MIND Research and the Fairfield ESC plan to increase the number of schools that receive in-class instructional modeling. As part of year-end implementation planning, the MIND education consultants work with each district to form a strategy on how to leverage the additional support MIND research can provide in the future school PD schedule

Self-Guided Course Completions by District/School

The following table lists the total number of Self-Guided Courses that have been completed by individual teachers in each school or district. A Self-Guided Course is considered completed when an individual teacher records a passing score (80% or better) on any End of Course Quiz. Course 1 does not contain an End of Course Quiz and is therefore not tracked. Courses 1-4 are recommended for completion by teachers prior to starting the use of ST Math with students.

	Self-Guided Courses by Number						
DISTRICT/SCHOOL	***2***	***3***	***4***	***5***	***6***	***7***	**Total**
FAIRFIELD CO ED SERVICE Center	**3**	**3**	**2**	**0**		**0**	**8**
FAIRFIELD CO ED SERVICE CENTER	3	3	2				8
COLUMBUS CITY SCH DISTRICT	**6**		**1**				**7**
COLUMBUS GLOBAL ACADEMY	1						1
EAST LINDEN ELEMENTARY SCHOOL	1						1
INNIS ELEMENTARY SCHOOL	1						1
MEDINA MIDDLE SCHOOL	1		1				2
WEDGEWOOD MIDDLE SCHOOL	1						1
WOODCREST ELEMENTARY SCHOOL	1						1
GAHANNA-JEFFERSON PUBLIC SD	**1**						**1**
GAHANNA MIDDLE SCHOOL-WEST	1						1
HAMILTON LOCAL SCHOOL DISTRICT	**45**	**43**	**46**	**11**	**7**	**6**	**158**
HAMILTON ELEMENTARY SCHOOL	45	43	46	11	7	6	158
HILLIARD CITY SCHOOL DISTRICT	**4**	**1**	**2**				**7**
AVERY ELEMENTARY SCHOOL			1				1
BRITTON ELEMENTARY SCHOOL	1						1
HILLIARD HORIZON ELEM SCHOOL	1						1
RIDGEWOOD ELEMENTARY SCHOOL		1	1				2
SCIOTO DARBY ELEMENTARY SCHOOL	1						1
WASHINGTON ELEMENTARY SCHOOL	1						1
LANCASTER CITY SCHOOL DISTRICT	**9**	**7**	**5**	**3**			**24**
LANCASTER CITY SCHOOL DISTRICT				1		1	2
CEDAR HEIGHTS ELEM SCHOOL	2	1	1				4
EAST ELEMENTARY SCHOOL	1	1	1				3
GENERAL SHERMAN JR HIGH SCHOOL				1			1
LANCASTER SENIOR HIGH SCHOOL	1	1	1	1			4
SANDERSON ELEMENTARY SCHOOL	3	2	1				6
TARHE ELEMENTARY SCHOOL	1						1
THOMAS EWING JR HIGH SCHOOL		1					1
WEST ELEMENTARY SCHOOL	1	1	1				3
LIBERTY UNION-THURSTN SCH DIST	**5**	**5**	**5**	**5**	**5**	**3**	**28**
LIBERTY UNION ELEMENTARY SCH	5	5	5	5	5	3	28

DISTRICT/SCHOOL	Self-Guided Courses by Number						
	2	*3*	*4*	*5*	*6*	*7*	Total
PICKERINGTON LOCAL SCHOOL DIST	**103**	**92**	**82**	**60**	**38**	**30**	**405**
PICKERINGTON LOCAL SCHOOL DIST	3	2	1	1			7
DILEY MIDDLE SCHOOL	14	13	13	5			45
FAIRFIELD ELEMENTARY SCHOOL	9	6	6	5	5	5	36
HARMON MIDDLE SCHOOL	9	6	6	4	2	1	28
HERITAGE ELEMENTARY SCHOOL	10	9	6	5	2	2	34
PICKERINGTON ELEMENTARY SCHOOL	11	10	5	5	3	3	37
SYCAMORE CREEK ELEM SCHOOL	12	11	12	12	11	9	67
TOLL GATE ELEMENTARY SCHOOL	7	8	7	7	7	5	41
TOLL GATE MIDDLE SCHOOL	11	10	12	9	1	1	44
TUSSING ELEMENTARY SCHOOL	14	14	13	6	6	4	57
VIOLET ELEMENTARY SCHOOL	3	3	1	1	1		9
WALNUT TWP LOCAL SCHOOL DIST	**17**	**16**	**16**	**8**	**7**	**6**	**70**
MILLERSPORT ELEMENTARY SCHOOL	17	16	16	8	7	6	70
WORTHINGTON SCHOOL DISTRICT	**7**	**5**	**3**	**2**			**17**
GRANBY ELEMENTARY SCHOOL	1	1					2
LIBERTY ELEMENTARY SCHOOL	3	1					4
PHOENIX MIDDLE SCHOOL	1	1	1	1			4
SLATE HILL ELEMENTARY SCHOOL		1	1				2
WILSON HILL ELEMENTARY SCHOOL	1	1	1	1			4
WORTHINGTON PARK ELEM SCHOOL	1						1
Grand Total	**200**	**172**	**162**	**89**	**57**	**46**	**726**

Section 3 – Fairfield County Schools

Fairfield County ESC – Summary

Fairfield County ESC currently has 76 active students on the program with 13.6% average syllabus progress. The ESC employs special education teachers across several districts in central Ohio. Some of these teachers work in schools that are not part of the grant making them the only ST Math user those sites.

All of these teachers work with Special Education students. Part of MIND's discussion with these teachers has been the strategies that they are using to help support their students. At the follow-up training many of the teachers expressed that they found the program beneficial for their students. They shared strategies they had been using to meet the needs of their diverse learners. Specifically discussed were strategies, such as questioning and use of manipulatives, to help Autistic students.

Representatives from MIND recently visited Liberty Union Elementary school and modeled an ST Math lesson. One of the special education teachers from the Fairfield County ESC had the opportunity to observe that lesson. During the lesson, both regular education and special education students participated in an inclusion setting.

Challenges
The teachers are continually seeking best practice strategies to support their special needs students. A strategy that has been shared is that of using the Teacher-Mode function in ST Math. During the training, Teacher-Mode was demonstrated and teachers role-played as they practiced slowing down, rewinding and pausing the ST Math puzzle animations and asking questions to facilitate student thinking based on what they were seeing. The benefit of asking students questions as they watch an animation play out is that it helps connect their thinking to the strategy that they are using. The Education Consultant also reiterated the benefits of small group instruction. Teachers were shown the syllabi from the Teacher Resource site that can be used to plan an academic path for the students as well as determine appropriate grade level placement. To further support struggling students, the use of ST Math in order to support requisite skills was also shared.

Focus Areas
A follow-up virtual Q and A is being planned to further support the teachers and check in on how they are progressing on the program. Some topics of discussion for the Q and A session will be strategies that promote mathematical thinking in students, supporting struggling students, managing curriculum and utilizing small group instruction and ST Math puzzle game mats to support understanding of concepts.

Next Steps
The Education Consultant will work with the Fairfield County ESC representatives to plan the Q and A session. A meeting is being scheduled to plan for 2015-16 implementation and support.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Fairfield County Education Service Center	**76**	**31.9**	**13.6**	**0.4**
Fairfield County Education Service Center	76	31.9	13.6	0.4

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Fairfield County Education Service Center	**76**	**31.9**	**13.6**	**0.4**
Kindergarten	18	40.9	19.8	0.6
First Grade	23	33.8	17.9	0.5
Second Grade	5	54.6	21.0	0.3
Third Grade	12	18.0	7.3	0.4
Fourth Grade	2	46.5	14.6	0.3
Fifth Grade	1	19.0	20.7	1.1
Sixth Grade	1	9.0	0.7	0.1
Seventh Grade MSS	2	84.5	4.6	0.1
Eighth Grade MSS	5	1.8	0.0	0.0
High School Intervention	7	17.4	1.3	0.1

Fairfield County Education Service Center - Event History

Start Date	School/District	ES Event Type
11/11/2014	FAIRFIELD CO ED SERVICE CENTER	Intro to ST Math Training Part 1
1/13/2015	FAIRFIELD CO ED SERVICE CENTER	Intro to ST Math Training Part 2

Lancaster City Schools – Summary

Lancaster currently has 3,932 active students on the program with 19% average syllabus progress. The schools are each implementing the program as it fits the needs of their schools. The Education Consultant has conducted five data meetings with building principals across the district. During these meetings the implementation of ST Math, school, classroom and student data has been discussed. Additional support needs have been identified and resources have also been shared. Teachers and students from Lancaster City Schools have expressed great interest in ST Math and are eager to learn more about how to integrate it into what they are doing in their classrooms.

Three site visits have been conducted in the district, one of which involved modeling. Representatives from MIND visited West Elementary School and modeled three lessons (one in grade 3, one in grade 4 and one in grade 5) using ST Math puzzles. The purpose was to field test a lesson wing developed by MIND to support teachers in integrating ST Math into classroom instruction using a puzzle. Teachers from three other schools were provided with substitutes so they could be part of this modeling experience. The Director of Human Resources (who is the district lead for the program) was present as well. This opportunity allowed teachers to experience the structure of a full lesson. This included the use of an ST Math puzzle to engage students with the concept and facilitate their thinking. The puzzle was followed by a rich problem allowing the teachers to see how students could apply their knowledge learned from the ST Math puzzle. Finally, the lesson concluded with a concept summary that showed teachers strategies for engaging students in reflecting on the knowledge they have gained and deepening their understanding.

Challenges

At the various data meetings, the schools have mentioned a limited number of devices as being an issue impacting the ST Math implementation. Some schools are still experiencing technical issues with their network connection. The district is still working on getting the Chrome Books deployed to the schools.

In addition to the need for more devices, the district also has other software programs they are using to meet the needs of the students. The teachers are challenged with how to manage all the resources at their disposal. The teachers have been looking at how ST Math best fits in with the programs they already use and how they can maximize the limited time that they have available.

Focus Areas

The Education Consultant is continuing to hold Data Meetings with the principals to discuss implementation and provide strategies for support. Additionally, several Q and A webinars are being set up to further support the teachers with their implementation. An emphasis on ST Math data and how to use it to inform instruction will continue to be part of the conversation with the schools. When conducting site visits, the Education Consultant refers teachers to the alerts report and shares strategies on how to support students to address the needs identified. In addition, facilitating student thinking through questions has been a major area of focus. Teachers are requesting additional support in helping their students who are struggling. The major idea the Education Consultant is working with the schools on strategies to make students thinking visible. This will be part of continued site visits and professional development opportunities.

Next Steps

The Education Consultant is working with the district lead to begin planning for 2015-2016 school year implementation and support as well as identify dates for a virtual Q and A. Additional site visits and data meetings are being scheduled to provide targeted support to the schools. The site visits could include modeling, lab visits, one-on-one classroom support, staff meetings, and additional trainings depending on the individual needs of the schools.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Lancaster City Schools	**3932**	**31.2**	**19.0**	**0.6**
Cedar Heights Elementary School	378	32.1	18.8	0.7
East Elementary School	372	34.7	20.8	0.7
General Sherman Junior High School	603	11.1	3.1	0.2
Lancaster Senior High School	5	16.2	5.0	0.2
Medill Elementary School	420	47.0	29.7	0.7
Sanderson Elementary School	295	46.2	33.3	0.7
South Elementary School	316	36.9	19.4	0.6
Tallmadge Elementary School	295	40.7	24.5	0.7
Tarhe Elementary School	436	18.4	16.0	0.9
Thomas Ewing Junior High School	349	15.9	3.0	0.2
West Elementary School - OH	463	43.9	31.0	0.7

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Cedar Heights Elementary School	**378**	**32.1**	**18.8**	**0.7**
Kindergarten	45	14.6	17.4	1.3
First Grade	77	19.6	13.8	0.8
Second Grade	83	42.6	25.0	0.6
Third Grade	64	49.7	24.5	0.5
Fourth Grade	57	42.8	19.8	0.5
Fifth Grade	52	16.0	9.6	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
East Elementary School	**372**	**34.7**	**20.8**	**0.7**
Kindergarten	63	17.0	22.6	1.3
First Grade	58	25.0	14.0	0.5
Second Grade	71	58.6	26.0	0.4
Third Grade	69	26.3	15.5	0.6
Fourth Grade	64	56.8	31.3	0.5
Fifth Grade	47	16.7	12.5	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
General Sherman Junior High School	**603**	**11.1**	**3.1**	**0.2**
Sixth Grade MSS	208	7.8	1.5	0.1
Seventh Grade MSS	236	15.8	5.3	0.3
Eighth Grade MSS	159	8.6	2.1	0.2

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Lancaster Senior High School	**5**	**16.2**	**5.0**	**0.2**
High School Intervention	5	16.2	5.0	0.2

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Medill Elementary School	**420**	**47.0**	**29.7**	**0.7**
Kindergarten	55	36.7	30.3	0.7
First Grade	69	32.7	26.1	0.8
Second Grade	54	45.3	23.2	0.5
Third Grade	73	99.8	57.0	0.6
Fourth Grade	86	36.4	23.7	0.7
Fifth Grade	83	31.4	18.9	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Sanderson Elementary School	**295**	**46.2**	**33.3**	**0.7**
Kindergarten	50	33.3	37.0	1.1
First Grade	42	25.8	22.7	0.9
Second Grade	60	58.5	35.5	0.6
Third Grade	57	42.1	25.3	0.6
Fourth Grade	46	65.1	36.6	0.5
Fifth Grade	40	49.3	44.4	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
South Elementary School	**316**	**36.9**	**19.4**	**0.6**
Kindergarten	59	6.4	7.0	1.0
First Grade	58	42.1	27.4	0.6
Second Grade	47	56.6	24.7	0.4
Third Grade	65	33.2	18.7	0.6
Fourth Grade	39	70.2	29.8	0.4
Fifth Grade	48	26.6	12.2	0.5

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Tallmadge Elementary School	**295**	**40.7**	**24.5**	**0.7**
Kindergarten	48	14.0	17.0	1.2
First Grade	52	18.3	18.2	0.9
Second Grade	45	68.9	33.5	0.5
Third Grade	52	53.3	26.7	0.5
Fourth Grade	50	48.9	22.5	0.5
Fifth Grade	48	43.4	29.8	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Tarhe Elementary School	**436**	**18.4**	**16.0**	**0.9**
Kindergarten	75	20.6	25.9	1.3
First Grade	90	18.9	20.8	1.0
Second Grade	69	20.0	15.3	0.8
Third Grade	74	20.8	14.3	0.7
Fourth Grade	59	20.7	13.0	0.7
Fifth Grade	69	9.3	4.2	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Thomas Ewing Junior High School	**349**	**15.9**	**3.0**	**0.2**
Sixth Grade MSS	152	21.0	4.7	0.2
Seventh Grade MSS	32	30.0	3.5	0.1
Eighth Grade MSS	165	8.4	1.4	0.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
West Elementary School - OH	**463**	**43.9**	**31.0**	**0.7**
Kindergarten	104	56.9	44.3	0.8
First Grade	87	35.8	36.3	1.1
Second Grade	74	83.7	54.0	0.6
Third Grade	70	19.3	9.2	0.5
Fourth Grade	55	42.9	22.3	0.5
Fifth Grade	73	19.3	9.6	0.5

Lancaster City Schools - Event History

Start Date	School/District	ES Event Type
9/9/2014	LANCASTER CITY SCHOOL DISTRICT	Intro to ST Math Training Part 1
10/21/2014	WEST ELEMENTARY SCHOOL	Site Visit
5/4/2015	TARHE ELEMENTARY SCHOOL	Data Meeting
10/21/2014	MEDILL ELEMENTARY SCHOOL	Site Visit
10/21/2014	THOMAS EWING JR HIGH SCHOOL	Site Visit
10/31/2014	LANCASTER CITY SCHOOL DISTRICT	Intro to ST Math Training Part 1
11/11/2014	SOUTH ELEMENTARY SCHOOL	Site Visit
11/11/2014	TARHE ELEMENTARY SCHOOL	Site Visit
11/11/2014	EAST ELEMENTARY SCHOOL	Consulting Coaching
Start Date	**School/District**	**ES Event Type**
11/11/2014	SANDERSON ELEMENTARY SCHOOL	Consulting Coaching
11/25/2014	CEDAR HEIGHTS ELEM SCHOOL	Data Meeting
12/2/2014	LANCASTER CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
12/9/2014	THOMAS EWING JR HIGH SCHOOL	Intro to ST Math Training Part 2
12/9/2014	TALLMADGE ELEMENTARY SCHOOL	Site Visit
12/9/2014	CEDAR HEIGHTS ELEM SCHOOL	Site Visit
12/9/2014	LANCASTER CITY SCHOOL DISTRICT	Site Visit
12/16/2014	LANCASTER CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
1/13/2015	GENERAL SHERMAN JR HIGH SCHOOL	Data Meeting
1/13/2015	WEST ELEMENTARY SCHOOL	Data Meeting
1/28/2015	WEST ELEMENTARY SCHOOL	Site Visit
2/10/2015	EAST ELEMENTARY SCHOOL	Data Meeting
2/10/2015	SOUTH ELEMENTARY SCHOOL	Data Meeting
2/10/2015	SANDERSON ELEMENTARY SCHOOL	Data Meeting
2/25/2015	WEST ELEMENTARY SCHOOL	Site Visit
3/27/2015	SANDERSON ELEMENTARY SCHOOL	Site Visit

Liberty Union-Thurston School District – Summary

Liberty Union-Thurston School District currently has 473 active students on the program with average of 41.9% syllabus progress. Liberty Union has received both the Intro Part 1 and Intro Part 2 training. The teachers have expressed a need to see a stronger connection between ST Math and the curriculum that they are using in the classroom. Based on that need, three additional professional learning opportunities were designed for Liberty Union Elementary School.

The first additional professional learning opportunity involved modeling. Representatives from MIND visited the school and spent a day modeling fraction lessons to four classes using ST Math in grades 3 and 4. The purpose was to show teachers how to use an ST Math puzzle to introduce a math topic. During the lessons, teachers observed how to facilitate student thinking through questioning. They also were able to observe how the mathematical practices can be developed through intentional questioning and activities. The ST Math puzzles were used to introduce the lesson as a whole class so the teachers were able to observe how it integrates with classroom instruction.

The second professional learning opportunity was a customized training that was designed as a follow-up to the modeled lessons. As part of the customized training, teachers were engaged in activities to deepen their understanding of the Mathematical Practice Standards. (Specifically focused on Math Practice Standard 1) The training also included game analysis and discussion of how the game could be used as part of classroom instruction either in a small group or a whole group setting. In addition, components of a lesson designed with an ST Math puzzle were discussed.

The final professional learning opportunity is currently in the process of being scheduled. Several teachers will be participating in a webinar to learn more about the Common Core State Standards and how ST Math supports the development of these standards. We will also discuss the integration of the practice standards into classroom instruction.

Challenges

The school continues to experience technology issues. The technology teacher has done a great job of working to provide teachers support and develop a system for ensuring that the staff members have access to devices. The teachers have been challenged with how to integrate ST Math into the curriculum that they are using. They continue to seek support in this area. The Education Consultant will continue working with the teachers on the integration of their core curricula and ST Math.

Focus Areas

The focus for this school has been on how to maximize their usage of ST Math. The teachers have experienced what ST Math looks like as part of classroom instruction. The additional training that teachers received generated a lot of great conversation. The Education Consultant will be meeting with the principal and curriculum director to plan for the 2015-2016 implementation. As we move into the next school year, the focus will be on how to continually support the teachers in integrating ST Math in their core curriculum. Additionally, strategies for developing a strong blended learning model will be discussed.

Next Steps

The Education Consultant will work with the principal and curriculum director to schedule the additional webinars and site visits for the remaining year. In addition, the Education Consultant will survey the principal and teachers to determine the types of resources and trainings they need to support them with the integration of their core curriculum and ST Math.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Liberty Union-Thurston School District	**473**	**48.8**	**41.9**	**0.9**
Liberty Union Elementary School	473	48.8	41.9	0.9

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Liberty Union Elementary School	**473**	**48.8**	**41.9**	**0.9**
Kindergarten	83	36.7	38.2	1.0
First Grade	91	52.7	38.4	0.7
Second Grade	110	51.0	37.7	0.8
Third Grade	93	52.6	48.0	0.9
Fourth Grade	96	49.4	47.6	1.0

Liberty Union-Thurston School District - Event History

Start Date	School/District	ES Event Type
9/16/2014	LIBERTY UNION ELEMENTARY SCH	Implementation Planning Meeting
9/23/2014	LIBERTY UNION ELEMENTARY SCH	Intro to ST Math Training Part 1
9/23/2014	LIBERTY UNION ELEMENTARY SCH	Intro to ST Math Training Part 1
10/16/2014	LIBERTY UNION ELEMENTARY SCH	Site Visit
10/21/2014	LIBERTY UNION ELEMENTARY SCH	Site Visit
10/30/2014	LIBERTY UNION ELEMENTARY SCH	Site Visit
Start Date	**School/District**	**ES Event Type**
11/13/2014	LIBERTY UNION ELEMENTARY SCH	Consulting Coaching, Site Visit
12/4/2014	LIBERTY UNION ELEMENTARY SCH	Intro to ST Math Training Part 2
12/18/2014	LIBERTY UNION ELEMENTARY SCH	Data Meeting
2/24/2015	LIBERTY UNION ELEMENTARY SCH	Site Visit
3/10/2015	LIBERTY UNION ELEMENTARY SCH	Site Visit
3/10/2015	LIBERTY UNION ELEMENTARY SCH	Site Visit

Pickerington Local Schools – Summary

Pickerington currently has 4,962 active students on the ST Math program with 39.2% average syllabus progress. Several site visits and data meetings have been scheduled in Pickerington. The implementation across elementary and middle schools continues to be varied. Some schools are using ST Math as a whole class during set times during the day and week. Others are using it in stations which students rotate through. Still others are continuing to try different formats to find an approach that works best for their school and/or individual teachers.

The Education Consultant has conducted eight data meetings; seven sight visits and one Intro to ST Math training from 1/8/15 to 3/24/15. Each of these was tailored to meet the needs of the school. Some included working in the classrooms to model the use of facilitating questions; work with the teacher and students; or to demonstrate how to address needs evidenced on the alerts report. Also included was a Q and A for teachers and discussion of ST Math data and implementation.

Part of the conversation in the district has been what to do with the students that have completed their assigned ST Math grade level content for the current school year. The Education Consultant has provided project ideas for students who finish early. These projects are focused on stretching the students and deepening their understanding of the content. Many of the ideas provided move students from the learner role to the role of teaching (indirectly). Research shows that when students are engaged in this type of work they retain 90% of what they have learned.

Challenges

The teachers have several programs (including new curriculum) that they are managing this year. They have done a great job this year determining how to support those curriculums. The next step will be for the Education Consultant to work with schools to help support them in maximizing the impact that ST Math can have and understanding how it can support the other programs that they are using.

Focus Areas

All schools within the district have had a data meeting. As part of the data meetings the implementation has been discussed. The overwhelming need identified was that of additional training. There will be several trainings offered this summer that directly address the needs that have been identified. Those trainings will include strategies for making students thinking visible; supporting students who are struggling and supporting those students that are excelling. Trainings will continue to include monitoring data and how to use it to inform classroom instruction. Aside from just the quantitative data, more advanced trainings will be provided that look at the qualitative data. The discussion will center on identifying student misconceptions and developing the mathematic practice standards.

Next Steps

The Education Consultant will be meeting with the district lead to discuss the 2015-2016 school year implementation and district-wide trainings that are needed. In addition, the Education Consultant will continue to work with individual schools to provide resources and support to meet their needs. Classroom visits to include modeling are in the process of being scheduled with the district.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Pickerington Local School District	**4962**	**48.1**	**39.2**	**0.9**
Diley Middle School	593	74.1	48.4	0.7
Fairfield Elementary School	473	40.6	38.1	1.0
Harmon Middle School	527	60.9	39.9	0.7
Heritage Elementary School	344	65.5	52.5	0.9
Pickerington Elementary School	451	40.0	41.3	1.2
Sycamore Creek Elementary	648	39.6	39.7	1.1
Toll Gate Elementary	592	38.7	35.2	1.1
Toll Gate Middle School	388	28.4	24.0	0.9
Tussing Elementary School	501	56.3	44.0	0.9
Violet Elementary School	445	33.9	27.0	0.8

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Diley Middle School	**593**	**74.1**	**48.4**	**0.7**
Fifth Grade	286	75.8	45.8	0.7
Sixth Grade	307	72.5	50.8	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Fairfield Elementary School	**473**	**40.6**	**38.1**	**1.0**
Kindergarten	76	28.9	45.2	1.6
First Grade	107	49.1	43.1	0.9
Second Grade	107	33.3	27.1	0.9
Third Grade	88	57.7	52.8	0.9
Fourth Grade	95	32.6	25.7	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Harmon Middle School	**527**	**60.9**	**39.9**	**0.7**
Fifth Grade	248	56.8	48.2	0.9
Sixth Grade	277	64.4	32.3	0.5
Seventh Grade MSS	2	74.0	58.0	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Heritage Elementary School	**344**	**65.5**	**52.5**	**0.9**
Kindergarten	55	54.2	53.9	1.1
First Grade	72	55.1	53.2	1.0
Second Grade	66	84.2	59.3	0.8
Third Grade	86	68.1	48.0	0.7
Fourth Grade	65	63.8	49.2	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Pickerington Elementary School	**451**	**40.0**	**41.3**	**1.2**
Kindergarten	78	28.6	47.7	1.9
First Grade	104	32.6	47.4	1.6
Second Grade	85	55.6	36.5	0.7
Third Grade	82	45.3	37.4	0.9
Fourth Grade	102	38.8	37.2	1.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Sycamore Creek Elementary	**648**	**39.6**	**39.7**	**1.1**
Kindergarten	128	22.2	29.0	1.3
First Grade	127	45.1	60.2	1.4
Second Grade	117	65.8	53.7	0.8
Third Grade	148	28.6	28.3	1.0
Fourth Grade	128	40.3	30.2	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Toll Gate Elementary	**592**	**38.7**	**35.2**	**1.1**
Kindergarten	95	12.1	20.2	1.7
First Grade	129	32.0	40.4	1.5
Second Grade	129	42.0	32.6	0.8
Third Grade	126	60.4	45.4	0.8
Fourth Grade	113	40.6	33.6	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Toll Gate Middle School	**388**	**28.4**	**24.0**	**0.9**
Second Grade	1	4.0	0.4	0.1
Fifth Grade	203	27.9	25.8	1.0
Sixth Grade	184	29.0	22.1	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Tussing Elementary School	**501**	**56.3**	**44.0**	**0.9**
Kindergarten	81	35.7	40.8	1.3
First Grade	115	39.2	49.1	1.3
Second Grade	119	75.0	41.4	0.6
Third Grade	95	72.3	41.9	0.6
Fourth Grade	91	55.2	46.2	0.9

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Violet Elementary School	**445**	**33.9**	**27.0**	**0.8**
Kindergarten	80	25.5	28.9	1.1
First Grade	79	34.6	32.4	0.9
Second Grade	104	23.9	17.7	0.7
Third Grade	95	30.1	28.4	1.0
Fourth Grade	87	57.1	29.7	0.5

Pickerington Local School District - Event History

Start Date	School/District	ES Event Type
9/30/2014	PICKERINGTON LOCAL SCHOOL DIST	Intro to ST Math Training Part 1
10/16/2014	TOLL GATE ELEMENTARY SCHOOL	Intro to ST Math Training Part 1
10/21/2014	DILEY MIDDLE SCHOOL	Site Visit
10/21/2014	PICKERINGTON ELEMENTARY SCHOOL	Site Visit
10/30/2014	DILEY MIDDLE SCHOOL	Site Visit
11/5/2014	DILEY MIDDLE SCHOOL	Site Visit
11/5/2014	PICKERINGTON ELEMENTARY SCHOOL	Site Visit
11/12/2014	HARMON MIDDLE SCHOOL	Data Meeting, Site Visit
11/12/2014	HERITAGE ELEMENTARY SCHOOL	Consulting Coaching, Site Audit
11/12/2014	VIOLET ELEMENTARY SCHOOL	Consulting Coaching, Site Visit
11/20/2014	DILEY MIDDLE SCHOOL	Data Meeting
11/20/2014	DILEY MIDDLE SCHOOL	Site Visit
11/21/2014	TOLL GATE MIDDLE SCHOOL	Data Meeting
12/3/2014	DILEY MIDDLE SCHOOL	Site Visit
12/9/2014	DILEY MIDDLE SCHOOL	Site Visit
12/16/2014	DILEY MIDDLE SCHOOL	Site Visit
12/19/2014	PICKERINGTON LOCAL SCHOOL DIST	Site Visit
1/8/2015	TUSSING ELEMENTARY SCHOOL	Data Meeting
1/8/2015	HERITAGE ELEMENTARY SCHOOL	Data Meeting
1/8/2015	VIOLET ELEMENTARY SCHOOL	Data Meeting
1/9/2015	FAIRFIELD ELEMENTARY SCHOOL	Data Meeting
1/12/2015	SYCAMORE CREEK ELEM SCHOOL	Data Meeting
1/14/2015	HARMON MIDDLE SCHOOL	Data Meeting
1/16/2015	TUSSING ELEMENTARY SCHOOL	Intro to ST Math Training Part 2
1/16/2015	DILEY MIDDLE SCHOOL	Site Visit
1/16/2015	TOLL GATE MIDDLE SCHOOL	Site Visit
1/16/2015	VIOLET ELEMENTARY SCHOOL	Site Visit
1/28/2015	HARMON MIDDLE SCHOOL	Site Visit
2/6/2015	HARMON MIDDLE SCHOOL	Site Visit
3/3/2015	TOLL GATE ELEMENTARY SCHOOL	Data Meeting, Site Visit
3/19/2015	HARMON MIDDLE SCHOOL	Site Visit
3/24/2015	PICKERINGTON ELEMENTARY SCHOOL	Data Meeting
3/24/2015	PICKERINGTON ELEMENTARY SCHOOL	Site Visit

Walnut Township School District – Summary

Walnut Township - Millersport Elementary currently has 306 active students on the program with 34.1% average syllabus progress. The Principal and staff at Millersport continue to be very focused on program implementation. There is a wonderful culture at the school promoting mathematics. The teachers completed the ST Math Self-Guided Courses focused on data, supporting struggling students and brining the ST math puzzles into the classroom. The Education Consultant is working on scheduling a Q and A with the teachers to discuss the content of the modules and any remaining questions the teachers may have.

Teachers have begun taking the second set of Self-Guided courses (5-7) to gain additional information on maximizing their use of the ST Math program. The Education Consultant will work with the principal to schedule a follow-up site visit to provide any additional support needed.

Challenges

The district is continues to face financial struggles, but the staff is focused on continuing the quality implementation that they began in September. With a levy on the ballot in May, the staffing and support that they had for the program this year remains uncertain. The Education Consultant is working on setting up a meeting with the principal to discuss an implementation plan for the 2015-2016 school year. As part of the discussion will be the needed support from MIND and any additional training the teachers may need.

Focus Areas

The focus will continue to be on providing implementation support with facilitating student thinking; helping struggling students and using ST Math puzzles in whole group and small group settings. The school has Chrome Books and a computer lab where the students engage in ST Math. Part of the focus will be helping teachers develop strategies to help students connect what they do in the lab setting or on Chrome Books to the mathematics they are learning in the classroom.

Next Steps

With the recent completion of the fluency courses, the teachers now have additional support in implementing the fluency program. The Education Consultant will provide an overview of the fluency curriculum and encourage the teachers to complete the modules and begin to think about how this program will be best used as part of 2015-2016 school year implementation. Additionally, the Education Consultant is working to schedule an implementation planning meeting with the principal to discuss the next school year.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Walnut Township School District	**306**	**45.2**	**34.1**	**0.9**
Millersport Elementary School	306	45.2	34.1	0.9

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Millersport Elementary School	**306**	**45.2**	**34.1**	**0.9**
Kindergarten	41	28.8	39.6	1.4
First Grade	37	31.9	47.8	1.5
Second Grade	52	31.0	31.7	1.0
Third Grade	37	46.2	29.7	0.7
Fourth Grade	46	46.6	25.4	0.5
Fifth Grade	46	56.2	29.6	0.5
Sixth Grade	47	73.0	37.6	0.5

Walnut Township School District - Event History

Start Date	School/District	ES Event Type
10/21/2014	MILLERSPORT ELEMENTARY SCHOOL	Site Visit
10/27/2014	MILLERSPORT ELEMENTARY SCHOOL	Site Visit
12/3/2014	MILLERSPORT ELEMENTARY SCHOOL	Site Visit
12/18/2014	MILLERSPORT ELEMENTARY SCHOOL	Data Meeting

Section 4 – Franklin County Schools

Columbus City Schools – Summary

Columbus currently has 1378 active students on the program with 5.8% average syllabus progress. The district is implementing the program through the ESL department. There are 41 schools in the district that were identified within the grant. The department's goal is for the ESL Teaching Assistants at the identified schools to be responsible for implementing the program within the ESL classes. Of the 41 schools twelve of them have been designated as year 2 starts for the program. Training was conducted on 3/25/15 for the newly identified assistants who will be working with the program.

On 2/23/15 a meeting was held with the Curriculum Director and her team to provide an overview of the ST Math program. A follow-up meeting will be held on 4/17/15 to discuss additional implementation outside of the ESL classrooms. Representatives from MIND met with district summer school leadership on 3/31/15. The district would like to use ST Math in the three elementary sites that have the program. During the meeting the representatives from MIND shared how the program can be used for summer school. The Education Consultant and an Instructional Designer from MIND will be working with the district summer program administrator to develop the summer program for these sites. A framework is being established and lessons from ST Math puzzles are being created to support teachers and students. In addition to the creation of the program, implementation support will be provided during the 6 weeks of the program.

Challenges

There have been some challenges with the implementation in Columbus. The representatives from MIND have been working closely with the district ESL department lead to navigate the challenges and provide support. A meeting has been scheduled for 4/15/15 to discuss challenges, potential strategies to address the challenges and to begin to plan for next school year.

With snow days, testing and limited technology in the ESL classroom maintaining consistent usage for students has been a challenge. In addition to these obstacles, the use of the "push-in" model in some schools has limited the availability of the ESL students to use the program within the ESL classroom. The Chrome Books that were provided through the grant have now been deployed to the schools and the district ESL department is expecting to see an increase in usage due to the availability of this technology.

During the initial trainings, teachers shared additional challenges that they are facing with implementation. Because of the time constraints students are not able to get on the system regularly and as a result often forget their passwords. As a result they end up spending their time repeating password training instead of interacting with the content. Teachers also shared the fact that they are considered reading and writing teachers and requested that the math teachers at their schools receive the training so they can help support the program. The district ESL department has decided for school year 2015-16 to place the primary responsibility for ST Math with the ESL assistants rather than the teachers. Overwhelmingly the teachers and assistants in the district have shared their desire to use the program. They have shared that even with the limited usage they have seen the program positively impact their students.

Focus Areas

The focus for Columbus City Schools will be on providing continual support. The Education Consultant will continue to work with the ESL department to leverage the use of the program. As requested, strategies that support the district literacy focus will continue to be shared with the ESL department, the teachers and the assistants. During the implementation meeting for next school year, the Education Consultant will work with the ESL department to develop a timeline of support and benchmarks for monitoring. Together we will determine effective strategies for providing the support that the district needs for the teachers and students.

Next Steps

Representatives from MIND will continue to work closely with the ESL department to discuss implementation challenges and to plan the support and training needed. Specific strategies for maximizing the impact of using ST Math within the frameworks that exist in the district will be discussed at the meeting on 4/15/15. The Education Consultant and district lead will continue to communicate to monitor progress of ST Math use in the schools and troubleshoot the challenges. A training is being scheduled for the beginning of the 2015-16 school year for the ESL assistants who will support ST Math. In addition to the training, a yearlong training schedule, benchmark monitoring tools and a district assistant panel of experts are being created in partnership with the district and MIND. These steps will strengthen and support the ongoing implementation and professional learning opportunities of the ESL assistants.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Columbus City Schools	**1378**	**12.9**	**5.8**	**0.4**
Broadleigh Elementary School	62	30.0	14.3	0.5
Burroughs Elementary	41	6.1	1.9	0.2
Cassady Alternative Elementary School	165	22.0	10.4	0.5
Columbus Global Academy	87	12.3	2.3	0.2
Eakin Elementary School	35	5.1	1.8	0.4
East Linden Elementary School	52	11.9	5.6	0.5
Forest Park Elementary School	13	1.6	1.0	0.7
Gables Elementary School	29	2.8	1.9	0.6
Hubbard Mastery School	34	3.7	2.2	0.4
Innis Elementary School	152	17.5	11.5	0.6
Johnson Park Middle School	55	12.3	1.8	0.1
Medina Middle School	47	9.0	2.7	0.2
Mifflin Alternative Middle School	136	14.3	2.7	0.1
Mifflin High School	95	5.7	0.9	0.1
North Linden Elementary School	53	13.6	5.0	0.3
Northland High School	36	10.1	3.8	0.4
Northtowne Elementary School	61	2.4	0.4	0.2
Salem Elementary School	83	14.2	10.3	0.6
Siebert Elementary School	10	1.2	0.0	0.0
Valley Forge Elementary School	108	11.4	8.1	0.8
Wedgewood Middle School	23	3.1	0.0	0.0
Woodcrest Elementary School	1	2.0	0.0	0.0

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Broadleigh Elementary School	**62**	**30.0**	**14.3**	**0.5**
Second Grade	4	21.5	6.0	0.4
Third Grade	22	28.7	15.9	0.6
Fourth Grade	12	37.1	11.5	0.3
Fifth Grade	24	29.1	15.5	0.5

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Burroughs Elementary	**41**	**6.1**	**1.9**	**0.2**
First Grade	6	3.5	1.0	0.1
Second Grade	10	5.1	1.1	0.2
Third Grade	9	3.9	1.1	0.2
Fourth Grade	8	10.6	3.2	0.3
Fifth Grade	8	7.4	3.2	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Cassady Alternative Elementary School	**165**	**22.0**	**10.4**	**0.5**
First Grade	26	8.2	4.4	0.5
Second Grade	31	24.4	8.3	0.3
Third Grade	48	12.4	4.4	0.6
Fourth Grade	31	17.5	9.7	0.4
Fifth Grade	29	52.3	28.7	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Columbus Global Academy	**87**	**12.3**	**2.3**	**0.2**
Eighth Grade MSS	57	14.2	2.4	0.2
High School Intervention	30	8.6	2.0	0.2

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Eakin Elementary School	**35**	**5.1**	**1.8**	**0.4**
First Grade	1	1.0	0.0	0.0
Second Grade	7	12.9	4.0	0.3
Third Grade	7	1.4	0.9	0.6
Fourth Grade	6	6.3	2.1	0.3
Fifth Grade	14	2.9	1.2	0.3

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
East Linden Elementary School	**52**	**11.9**	**5.6**	**0.5**
Kindergarten	1	2.0	0.0	0.0
Third Grade	16	12.5	6.1	0.5
Fourth Grade	21	12.6	4.0	0.3
Fifth Grade	14	11.0	7.7	1.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Forest Park Elementary School	**13**	**1.6**	**1.0**	**0.7**
Third Grade	3	1.0	2.4	2.4
Fourth Grade	3	1.3	0.0	0.0
Fifth Grade	7	2.0	0.8	0.2

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Gables Elementary School	**29**	**2.8**	**1.9**	**0.6**
First Grade	9	2.1	1.5	0.4
Third Grade	20	3.1	2.0	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hubbard Mastery School	**34**	**3.7**	**2.2**	**0.4**
Kindergarten	7	1.7	0.8	0.4
First Grade	5	1.6	0.6	0.3
Second Grade	6	4.0	2.0	0.4
Third Grade	6	7.7	6.2	0.8
Fourth Grade	6	4.3	2.1	0.3
Fifth Grade	4	2.3	1.0	0.3

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Innis Elementary School	**152**	**17.5**	**11.5**	**0.6**
Kindergarten	14	8.4	11.9	0.9
First Grade	42	7.3	6.3	0.5
Second Grade	11	12.4	7.0	1.2
Third Grade	29	23.4	15.2	0.7
Fourth Grade	33	26.7	14.0	0.4
Fifth Grade	23	23.3	14.9	0.5

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Johnson Park Middle School	**55**	**12.3**	**1.8**	**0.1**
Sixth Grade MSS	24	12.3	2.1	0.1
Seventh Grade MSS	19	18.0	2.3	0.1
Eighth Grade MSS	12	3.3	0.2	0.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Medina Middle School	**47**	**9.0**	**2.7**	**0.2**
Sixth Grade MSS	31	10.7	3.4	0.3
Seventh Grade MSS	11	7.8	1.9	0.1
Eighth Grade MSS	5	1.6	0.0	0.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Mifflin Alternative Middle School	**136**	**14.3**	**2.7**	**0.1**
Sixth Grade MSS	57	14.6	2.9	0.1
Seventh Grade MSS	55	14.7	2.7	0.1
Eighth Grade MSS	24	12.4	2.0	0.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Mifflin High School	**95**	**5.7**	**0.9**	**0.1**
High School Intervention	95	5.7	0.9	0.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
North Linden Elementary School	**53**	**13.6**	**5.0**	**0.3**
Kindergarten	10	2.6	0.7	0.2
First Grade	7	1.9	0.6	0.1
Third Grade	1	5.0	1.1	0.2
Fourth Grade	19	15.8	4.7	0.3
Fifth Grade	16	23.4	10.1	0.5

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Northland High School	36	10.1	3.8	0.4
High School Intervention	36	10.1	3.8	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Northtowne Elementary School	**61**	**2.4**	**0.4**	**0.2**
Kindergarten	3	1.3	0.4	0.4
First Grade	1	1.0	0.0	0.0
Second Grade	16	1.8	0.4	0.2
Fourth Grade	23	2.6	0.4	0.1
Fifth Grade	18	2.9	0.4	0.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Salem Elementary School	**83**	**14.2**	**10.3**	**0.6**
Kindergarten	4	20.3	31.0	2.8
First Grade	16	4.8	0.9	0.1
Second Grade	14	4.7	1.7	0.4
Third Grade	17	25.4	23.4	1.0
Fourth Grade	15	13.6	5.3	0.3
Fifth Grade	17	18.8	12.7	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Siebert Elementary School	**10**	**1.2**	**0.0**	**0.0**
Kindergarten	4	1.0	0.0	0.0
Second Grade	2	1.0	0.0	0.0
Third Grade	3	1.7	0.0	0.0
Fourth Grade	1	1.0	0.0	0.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Valley Forge Elementary School	**108**	**11.4**	**8.1**	**0.8**
Kindergarten	21	2.0	1.9	1.0
First Grade	41	4.6	7.1	0.9
Second Grade	46	21.7	11.7	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Wedgewood Middle School	**23**	**3.1**	**0.0**	**0.0**
Sixth Grade MSS	19	3.0	0.0	0.0
Seventh Grade MSS	2	4.5	0.1	0.0
Eighth Grade MSS	2	3.0	0.1	0.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Woodcrest Elementary School	**1**	**2.0**	**0.0**	**0.0**
Fifth Grade	1	2.0	0.0	0.0

Columbus City Schools - Event History

Start Date	School/District	ES Event Type
9/18/2014	COLUMBUS CITY SCH DISTRICT	Intro to ST Math Training Part 1
9/18/2014	COLUMBUS CITY SCH DISTRICT	Intro to ST Math Training Part 1
10/1/2014	INNIS ELEMENTARY SCHOOL	Site Visit
10/7/2014	MIFFLIN ALTERNATIVE MIDDLE SCH	Site Visit
10/7/2014	COLUMBUS CITY SCH DISTRICT	Site Visit
10/9/2014	COLUMBUS CITY SCH DISTRICT	Intro to ST Math Training Part 1
10/13/2014	JOHNSON PARK MIDDLE SCHOOL	Site Visit
11/10/2014	CASSADY ALT ELEMENTARY SCHOOL	Site Visit
11/12/2014	WEDGEWOOD MIDDLE SCHOOL	Site Visit
11/12/2014	EAKIN ELEMENTARY SCHOOL	Site Visit
11/13/2014	COLUMBUS CITY SCH DISTRICT	Intro to ST Math Training Part 1
11/13/2014	COLUMBUS GLOBAL ACADEMY	Site Visit
11/13/2014	SIEBERT ELEMENTARY SCHOOL	Site Visit
11/17/2014	NORTHTOWNE ELEMENTARY SCHOOL	Site Visit
11/20/2014	JOHNSON PARK MIDDLE SCHOOL	Site Visit
11/24/2014	WEDGEWOOD MIDDLE SCHOOL	Site Visit
12/1/2014	INNIS ELEMENTARY SCHOOL	Site Visit
12/4/2014	WEDGEWOOD MIDDLE SCHOOL	Site Visit
12/5/2014	NORTHTOWNE ELEMENTARY SCHOOL	Site Visit
12/8/2014	SIEBERT ELEMENTARY SCHOOL	Site Visit
12/8/2014	MEDINA MIDDLE SCHOOL	Site Visit
12/9/2014	COLUMBUS CITY SCH DISTRICT	Implementation Planning Meeting
12/15/2014	JOHNSON PARK MIDDLE SCHOOL	Site Visit

Start Date	School/District	ES Event Type
2/4/2015	COLUMBUS CITY SCH DISTRICT	Intro to ST Math Training Part 2
2/23/2015	COLUMBUS CITY SCH DISTRICT	Data Meeting
3/25/2015	COLUMBUS CITY SCH DISTRICT	Intro to ST Math Training Part 1
3/31/2015	HUBBARD MASTERY SCHOOL	Site Visit
3/31/2015	GABLES ELEMENTARY SCHOOL	Site Visit

Gahanna Jefferson City Schools – Summary

Gahanna currently has 399 active students on the program with 32.5% average syllabus progress. Gahanna Middle School West is the only school in the district using the program. The school continues to implement the program in grades 6 and 7 with great success. They have developed an instructional rotation model where teachers have stations set up in their classrooms (small group instruction with the teacher, ST Math station and a third station). These stations take place over a double blocked period of instruction. They also take advantage of inclusion where possible and the inclusion teacher supports one of the stations.

The Education Consultant had a check in call with the building administrators on 3/30/15. The purpose of this call was to discuss the implementation and set a date for an implementation planning meeting for the next school year. The call was a Q and A for the administrators regarding their understanding of the best use of the program. During the call, the Education Consultant shared with the administrators the quality of the instructional model that they have been developing with ST Math. In looking toward the 2015-2016 school year, the Education Consultant will work with the administration and teachers to help further develop the model that is being used.

Challenges

The teachers have been doing a great job with the implementation. There have been a few challenges regarding setting up the summative assessment, but those have been resolved. The teachers are working on finding more ways to integrate ST Math into the classroom. The administrators are interested in having some professional learning for their teachers this summer to support their blended learning model.

In addition, the district will be adopting a new math textbook. The administrators are being pro-active in looking to see how ST Math will integrate with the new curriculum materials. The Education Consultant will continue to look into this for the administrators and work with the teachers this summer to help them make connections.

Focus Areas

The Education Consultant will be working with the teachers and administration to provide support in further developing the model that is being used. The focus will be on being more intentional and integrative about the stations. How can the data provided by ST Math inform the development of the stations utilized in their instructional rotation model?

Another area that teachers need support in is facilitating student thinking as they work in the stations. Teachers are often teaching another small group during that time and are not able to get to students right away. Strategies for helping students reflect on their own thinking and best practices from other districts will continue to be shared.

Next Steps

The Education Consultant is meeting with the principal and assistant principal to begin planning the implementation for the next school year. A tentative meeting date has been set for 4/27/15. One of the topics for discussion is the design of training for August that will help support the teachers in integrating ST Math with their curriculum.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Gahanna Jefferson City Schools	**399**	**100.3**	**32.5**	**0.3**
Gahanna Middle School - West	399	100.3	32.5	0.3

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Gahanna Middle School - West	**399**	**100.3**	**32.5**	**0.3**
Sixth Grade MSS	201	107.2	42.2	0.4
Seventh Grade MSS	152	106.3	23.9	0.2
Eighth Grade MSS	46	50.5	18.6	0.4

Gahanna Jefferson City Schools - Event History

Start Date	School/District	ES Event Type
8/27/2014	GAHANNA MIDDLE SCHOOL-WEST	Intro to ST Math Training Part 1
11/18/2014	GAHANNA MIDDLE SCHOOL-WEST	Data Meeting
12/10/2014	GAHANNA MIDDLE SCHOOL-WEST	Site Visit

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Hamilton Local Schools – Summary

Hamilton Local Schools currently has 1447 active students on the program with 13.5% average syllabus progress. Hamilton has a total of three schools. The district chose to have all the teachers initially trained using the self-guided courses (1-4). The elementary school is the one primarily using the program. Technology issues, time constraints and an insufficient number of devices have been reported as reasons why the remaining two Hamilton schools are unable to fully start implementing the ST Math program.

Hamilton elementary is a fairly large K-3 building. This school has Chrome Books that are being used by the grades 2 and 3. The Kindergarten and first grade classes have had more difficulty using ST Math because their classroom computers are not compatible with the program. Because these teachers do not have the ability to get their students on the system on a regular basis, the school ST Math Lead and the Education Consultant have discussed strategies for helping the teachers bring ST Math puzzles into the classroom. As a result a professional learning opportunity was planned for the K-1 teachers on 4/1/15.

A representative from MIND visited the school and modeled lessons in seven different K-1 classrooms throughout the day. Teachers were able to observe how the puzzles can be used to connect to the curriculum that is being taught. They were also able to see the teacher role of facilitating student thinking through the questioning strategies that was used.

Challenges
As stated earlier, the elementary has a large population of students and lacks the devices to provide access to ST Math on a regular basis to everyone. This makes implementation of ST Math in every classroom a challenge. The school does have a lab that can be used by the classes, but at such a large school it is often scheduled for other classes.

Focus Areas
The teachers have expressed a desire for more training. Most teachers have a very limited understanding of the robustness of the ST Math program. They want to become more adept at utilizing ST Math for student achievement. Moving forward to the 2015-2016 school year, the focus will be more on helping teachers integrate ST Math puzzles into small and whole group instruction; fully utilize the reports and provide training on the fluency program.

Next Steps
The Education Consultant will continue to provide resources and information to the district. A meeting will be scheduled with the Curriculum Coordinator to begin planning for the second year of implementation. The Education Consultant will work with the administration and teacher lead to see what additional support is need for this school year.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hamilton Local Schools	**1447**	**14.9**	**13.5**	**0.8**
Hamilton Elementary School	997	19.3	19.2	1.1
Hamilton Middle School	450	5.2	0.8	0.1

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hamilton Elementary School	**997**	**19.3**	**19.2**	**1.1**
Kindergarten	255	8.7	14.8	1.6
First Grade	270	17.5	21.0	1.1
Second Grade	269	17.0	12.1	0.7
Third Grade	203	38.1	31.6	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hamilton Middle School	**450**	**5.2**	**0.8**	**0.1**
Seventh Grade MSS	238	5.0	0.4	0.1
Eighth Grade MSS	212	5.4	1.2	0.2

Hamilton Local Schools - Event History

Start Date	School/District	ES Event Type
10/14/2014	HAMILTON ELEMENTARY SCHOOL	Site Visit
11/24/2014	HAMILTON ELEMENTARY SCHOOL	Site Visit
12/5/2014	HAMILTON MIDDLE SCHOOL	Data Meeting
12/5/2014	HAMILTON ELEMENTARY SCHOOL	Site Visit
3/13/2015	HAMILTON ELEMENTARY SCHOOL	Data Meeting
4/1/2015	HAMILTON ELEMENTARY SCHOOL	Site Visit

Hilliard City Schools – Summary

Hilliard currently has 6,495 active students on the program with 24.7% average syllabus progress. Each school is making progress with their implementation in different ways. The district initially identified a focus group of students for the program. This focus group included Special Education students, English Language Learners and Gifted and Talented students. For some of the schools they have expanded this to include other populations of students. The expansion is at the discretion of the individual teachers who would like to integrate it into their classrooms.

The Education Consultant has held nine data meetings from 1/14/15 to 3/22/15 in the schools with building administrators. The purpose of these meetings has been to discuss the implementation, review data and identify areas of needed support. One of the schools has been working with teachers in data teams to use their data to identify mathematical concepts with which students are challenged. As part of the conversation, the data teams are looking at ST Math puzzles and how to incorporate the puzzles into their whole group instruction. Many of the schools have received some form of training in how to bring puzzles into the classroom as part of instruction. The level of the training has varied based on the readiness of the teachers to participate in more in-depth ST Math development.

Representatives from MIND visited Beacon, Darby Creek and Alton Darby to model lessons in whole group and small group settings. Teachers were able to observe how the puzzles were used as part of an instructional lesson. Teachers experienced strategies for facilitating student thinking through questioning. Teachers found these opportunities very beneficial to understanding ways to maximize ST Math for a more robust blended learning experience.

There have been six site visits and six Intro to ST Math trainings conducted in Hilliard from 1/14/15 to 3/31/15. Each site visit was tailored to meet the needs of the school. The support provided during the site visits included Q & A with teachers, overview trainings, lab site visits and data conversations with teachers. During the lab and classroom visits, teachers were shown strategies for interacting with the students while they were engaged in ST Math.

Challenges

The district has focused the implementation on the special population classes (Gifted and Talented, English Language Learners and Special Education). Schools in the district are at various stages of implementation. The Education Consultant has worked with several coaches in the district to provide additional training to the schools who are seeking to use it with other teachers in the building. The most prevalent model being used in schools is that of stations. This has been challenging for teachers as students are typically working independently while the teacher is working with another group. The Education Consultant has been working with teachers to provide strategies for supporting this model of usage and to address the concerns of struggling students and those with low or decreasing program quiz scores.

Additionally time continues to be a factor in the regular use of the program. A large number of the schools have expressed the need for additional devices to be able to use the program more effectively. Many of the schools have iPad carts that they share amongst grade levels. The Education Consultant has encouraged the schools to develop a schedule for usage in order to maximize the time students have on the program. The major challenge with that is reducing the amount of time it takes to transition the devices from one classroom to another. This is an area they are continuing to work on.

Focus Areas

The two major areas of focus have been in understanding how to use the data to address issues that have been identified and the introduction of the fluency curriculum. Some of the teachers are currently using a separate fluency program so part of the conversation with the teachers has been to explain how the fluency program

works with ST Math and the resources and data that are provided. Training on the fluency program will be geared more towards implementing this component in the 2015-2016 school year.

For the remainder of the school year the Education Consultant will continue to conduct site visits, data meetings and trainings. These will be tailored to meet the needs of the individual schools. Part of the work with the schools in the district will be pro-actively planning for a successful year two implementation of ST Math.

Next Steps

The Education Consultant is working on scheduling a meeting with the district lead to discuss plans for the 2015-2016 school year implementation of ST Math and the district-wide trainings that are needed. Several schools have expressed interest in doing ST Math at home over the summer. To help support the schools in this endeavor, the Education Consultant is identifying and developing resources that can be shared with families.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hilliard City Schools	**6495**	**32.2**	**24.7**	**0.9**
Avery Elementary School	377	35.5	27.8	0.8
Beacon Elementary School	493	35.3	26.0	0.9
Britton Elementary School	489	29.9	21.4	0.8
Brown Elementary School	565	35.5	22.5	0.6
Darby Creek Elementary School	491	44.1	32.2	0.8
Hilliard Crossing Elementary School	497	18.5	16.7	1.2
Hilliard Horizon Elementary School	625	27.7	17.9	0.7
Hoffman Trails Elementary School	479	19.6	19.8	1.1
J W Reason Elementary School	498	39.7	29.6	0.8
Norwich Elementary School	207	17.6	15.9	1.0
Ridgewood Elementary School	523	33.5	24.0	0.7
Scioto Darby Elementary School	477	30.8	25.5	0.9
Washington Elementary School	428	54.2	46.8	0.9

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Alton Darby Elementary School	**346**	**20.8**	**18.6**	**1.0**
Kindergarten	2	4.5	3.8	0.5
First Grade	78	36.0	33.8	0.9
Second Grade	73	22.3	13.7	0.6
Third Grade	36	5.7	4.7	1.3
Fourth Grade	82	12.6	11.0	1.0
Fifth Grade	75	20.0	22.8	1.3

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Avery Elementary School	**377**	**35.5**	**27.8**	**0.8**
Kindergarten	60	44.5	38.6	0.9
First Grade	59	39.8	36.2	1.1
Second Grade	62	35.7	28.9	0.9
Third Grade	67	45.2	36.1	0.8
Fourth Grade	58	34.4	22.1	0.6
Fifth Grade	71	16.0	7.4	0.5

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Beacon Elementary School	**493**	**35.3**	**26.0**	**0.9**
Kindergarten	73	15.2	15.6	1.0
First Grade	92	30.0	37.7	1.4
Second Grade	88	33.3	23.0	0.7
Third Grade	79	42.9	31.9	0.8
Fourth Grade	89	68.5	29.8	0.4
Fifth Grade	72	15.7	14.1	0.9

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Britton Elementary School	**489**	**29.9**	**21.4**	**0.8**
Kindergarten	106	25.4	26.5	1.2
First Grade	55	65.4	44.8	0.6
Second Grade	92	38.5	21.3	0.5
Third Grade	76	25.0	18.2	0.7
Fourth Grade	83	12.5	6.7	0.6
Fifth Grade	77	24.0	17.2	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Brown Elementary School	**565**	**35.5**	**22.5**	**0.6**
Kindergarten	62	44.6	36.1	0.8
First Grade	103	49.7	37.2	0.7
Second Grade	98	35.2	17.5	0.5
Third Grade	92	47.0	27.5	0.6
Fourth Grade	96	33.5	16.4	0.5
Fifth Grade	114	10.4	7.1	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Darby Creek Elementary School	**491**	**44.1**	**32.2**	**0.8**
Kindergarten	77	11.1	14.5	1.4
First Grade	69	26.2	23.0	0.8
Second Grade	92	58.3	36.5	0.7
Third Grade	92	50.3	32.0	0.7
Fourth Grade	69	74.5	50.4	0.7
Fifth Grade	92	41.9	36.1	0.9

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hilliard Crossing Elementary School	**497**	**18.5**	**16.7**	**1.2**
Kindergarten	99	26.7	28.9	1.2
First Grade	72	26.3	22.5	1.0
Second Grade	97	20.5	13.1	0.8
Third Grade	81	19.3	16.3	1.2
Fourth Grade	66	9.2	6.7	1.2
Fifth Grade	82	6.3	9.4	2.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hilliard Horizon Elementary School	**625**	**27.7**	**17.9**	**0.7**
Kindergarten	102	3.4	4.0	1.2
First Grade	93	56.1	42.6	0.8
Second Grade	104	25.9	11.5	0.5
Third Grade	101	39.5	19.2	0.6
Fourth Grade	110	23.1	12.5	0.6
Fifth Grade	115	21.8	20.0	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Hoffman Trails Elementary School	**479**	**19.6**	**19.8**	**1.1**
Kindergarten	72	1.1	0.9	0.9
First Grade	67	13.3	15.9	1.5
Second Grade	72	26.9	25.6	0.8
Third Grade	108	21.2	19.3	1.1
Fourth Grade	78	33.5	36.2	1.1
Fifth Grade	82	19.3	19.7	1.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
J W Reason Elementary School	**498**	**39.7**	**29.6**	**0.8**
Kindergarten	97	30.1	24.5	0.9
First Grade	93	61.9	42.3	0.8
Second Grade	88	33.6	30.1	1.0
Third Grade	89	39.9	32.5	0.9
Fourth Grade	69	37.1	20.3	0.5
Fifth Grade	62	32.8	23.9	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Norwich Elementary School	**207**	**17.6**	**15.9**	**1.0**
Kindergarten	56	16.5	19.9	1.3
First Grade	54	21.0	18.2	0.9
Second Grade	3	32.3	15.7	0.4
Third Grade	15	11.9	3.6	0.1
Fourth Grade	37	15.5	8.6	0.8
Fifth Grade	42	17.6	18.6	1.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Ridgewood Elementary School	**523**	**33.5**	**24.0**	**0.7**
Kindergarten	33	8.2	7.4	0.7
First Grade	96	37.3	34.6	0.9
Second Grade	103	39.9	19.9	0.6
Third Grade	95	44.2	36.3	0.8
Fourth Grade	99	37.8	20.9	0.6
Fifth Grade	97	16.5	14.3	0.9

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Scioto Darby Elementary School	**477**	**30.8**	**25.5**	**0.9**
Kindergarten	63	21.0	28.3	1.3
First Grade	86	20.9	19.3	1.1
Second Grade	76	18.4	15.8	1.0
Third Grade	68	22.0	20.9	1.0
Fourth Grade	83	45.2	29.7	0.7
Fifth Grade	101	48.9	36.0	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Washington Elementary School	**428**	**54.2**	**46.8**	**0.9**
Kindergarten	53	43.7	42.6	1.0
First Grade	73	67.9	53.2	0.9
Second Grade	80	64.7	47.5	0.8
Third Grade	87	51.2	41.9	0.9
Fourth Grade	63	47.3	57.7	1.3
Fifth Grade	72	46.3	39.0	0.8

Hilliard City School District - Event History

Start Date	School/District	ES Event Type
11/13/2014	SCIOTO DARBY ELEMENTARY SCHOOL	Site Visit
3/31/2015	HILLIARD HORIZON ELEM SCHOOL	Site Visit
9/10/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 1
9/11/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 1
9/25/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 1
9/25/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 1
10/2/2014	HILLIARD HORIZON ELEM SCHOOL	Site Visit
10/13/2014	J W REASON ELEMENTARY SCHOOL	Implementation Planning Meeting
10/15/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
10/15/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
10/21/2014	HILLIARD CITY SCHOOL DISTRICT	Site Visit
10/21/2014	NORWICH ELEMENTARY SCHOOL	Site Visit
10/22/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
10/22/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
10/23/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
10/23/2014	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
11/12/2014	SCIOTO DARBY ELEMENTARY SCHOOL	Site Visit
11/12/2014	BRITTON ELEMENTARY SCHOOL	Site Visit
11/12/2014	NORWICH ELEMENTARY SCHOOL	Site Visit
11/13/2014	BRITTON ELEMENTARY SCHOOL	Site Visit
11/13/2014	AVERY ELEMENTARY SCHOOL	Site Visit
12/15/2014	BEACON ELEMENTARY SCHOOL	Site Visit
1/14/2015	BEACON ELEMENTARY SCHOOL	Site Visit
1/14/2015	BEACON ELEMENTARY SCHOOL	Data Meeting
1/29/2015	DARBY CREEK ELEMENTARY SCHOOL	Data Meeting
1/29/2015	DARBY CREEK ELEMENTARY SCHOOL	Site Visit
2/10/2015	HILLIARD CROSSING ELEM SCHOOL	Data Meeting
2/17/2015	HILLIARD CITY SCHOOL DISTRICT	Intro to ST Math Training Part 2
2/18/2015	J W REASON ELEMENTARY SCHOOL	Data Meeting
2/23/2015	DARBY CREEK ELEMENTARY SCHOOL	Data Meeting
2/25/2015	AVERY ELEMENTARY SCHOOL	Data Meeting
2/25/2015	AVERY ELEMENTARY SCHOOL	Site Visit
2/26/2015	DARBY CREEK ELEMENTARY SCHOOL	Site Visit
3/2/2015	SCIOTO DARBY ELEMENTARY SCHOOL	Data Meeting
3/11/2015	HILLIARD CROSSING ELEM SCHOOL	Site Visit
3/12/2015	SCIOTO DARBY ELEMENTARY SCHOOL	Intro to ST Math Training Part 2
3/12/2015	SCIOTO DARBY ELEMENTARY SCHOOL	Intro to ST Math Training Part 2
3/17/2015	ALTON DARBY ELEMENTARY SCHOOL	Data Meeting, Site Visit
3/18/2015	AVERY ELEMENTARY SCHOOL	Intro to ST Math Training Part 2
3/19/2015	WASHINGTON ELEMENTARY SCHOOL	Intro to ST Math Training Part 2
3/19/2015	WASHINGTON ELEMENTARY SCHOOL	Intro to ST Math Training Part 2
3/22/2015	WASHINGTON ELEMENTARY SCHOOL	Data Meeting

Worthington City Schools – Summary

Worthington City School District currently has 4,563 active students on the ST Math program with 14.2% average syllabus progress. The district currently has many new programs and initiatives. The district is continuing its focus on exposing teachers to the ST Math program and providing support to those teachers who choose to implement this program with their class. The Education Consultant has shared a variety of resources with the teachers to support them in integrating ST Math into their classroom instruction. Strategies for using ST Math puzzles to engage students in understanding math concepts was shared at various school sites.

There have been six Intro to ST Math trainings; six site visits and nine data meetings held between 1/14/15 and 3/31/15. The Intro trainings were customized to meet the needs of the school. The focus was on understanding the reports and identifying strategies to address the needs observed in the data; understanding how to facilitate students struggling with a puzzle and how to make student thinking visible. The site visits have ranged from Q and A with an entire staff to individualized in class support with the teachers as requested. A site visit to Wilson Hill included modeling of facilitated questions in some classrooms and in a fourth grade class it included modeling a whole class lesson. Teachers were able to see how ST Math puzzles can be brought into the classroom as part of a lesson. Strategies for facilitating student thinking were shared.

Data meetings were held with building administrators at several schools throughout the district to discuss implementation challenges, successes and support that is needed. Over the next few weeks data meetings will be held at the remaining schools. As part of these meetings, the Education Consultant will begin to discuss strategies for the 2015-2016 school year implementation of ST Math and strategies to address the issues found in the data.

Challenges

The district currently has many initiatives and other competing math programs. In this initial year, the teachers are making the choice of which program best fits their classroom goals. In this implementation year, teachers in several schools have indicated the need for a deeper understanding of the ST Math program. Another concern expressed by Worthington teachers involves the available time for ST Math. The teachers are challenged with managing the recommended time of 60 to 90 minutes per week for ST Math use. They have expressed a need for test prep and that has been their focus.

Focus Areas

The Education Consultant will continue working with the district Math Curriculum Coordinator to plan professional development learning opportunities for the upcoming school year. One area of focus will be to train the math liaisons that are in each school. Another area of focus for training will be fluency and how to support teachers through the use of the self-guided courses. Data and the use of reports will also continue to remain a focus for the implementation.

Next Steps

The Education Consultant will continue to work with individual schools to support their implementation of ST Math. An implementation planning meeting with the district lead has been set up for 4/16/15. During this meeting strategies for the 2015-2016 school year implementation of ST Math will be discussed including training teachers on the fluency program and design of the summer professional development that has been requested by the district. Additionally, strategies for provide more support to the middle and high school teachers will be an area of focus. This year teachers struggled to find time for ST Math during their regularly scheduled 42 minute class periods. During the 2015-16 school year, the district is designing math extension courses that will use ST Math. These courses will focus on intervention. The Education Consultant will work with the district lead to determine how MIND can help support the teachers of this course.

ST Math Progress Data

District ST Math Progress by School

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Worthington City Schools	**4563**	**17.4**	**14.2**	**0.8**
Brookside Elementary School	274	15.4	10.1	0.7
Colonial Hills Elementary School	376	28.5	23.8	1.1
Evening Street Elementary School	421	16.0	13.9	1.0
Granby Elementary School	372	26.9	25.5	1.4
Kilbourne Middle School	103	9.6	3.8	0.5
Liberty Elementary School	267	16.8	15.2	0.7
McCord Middle School	53	20.7	3.7	0.2
Phoenix Middle School	161	6.7	5.0	0.7
Slate Hill Elementary School	492	14.1	11.3	0.9
Thomas Worthington High School	57	7.4	1.0	0.1
Wilson Hill Elementary School	475	17.2	14.9	1.0
Worthington Estates Elementary School	162	20.0	11.7	0.6
Worthington Hills Elementary School	213	17.7	17.4	1.2
Worthington Kilbourne High School	104	1.7	1.1	0.6
Worthington Park Elementary School	297	14.2	12.0	0.9
Worthingway Middle School	373	6.1	1.4	0.2

School ST Math Progress by Grade

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Bluffsview Elementary School	363	30.3	27.6	0.8
Kindergarten	41	30.2	29.1	1.1
First Grade	59	12.9	7.9	0.6
Second Grade	33	7.4	5.9	0.6
Third Grade	43	26.9	26.7	0.6
Fourth Grade	63	51.0	49.4	0.9
Fifth Grade	65	28.5	29.1	1.0
Sixth Grade	59	42.7	34.1	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Brookside Elementary School	**274**	**15.4**	**10.1**	**0.7**
Kindergarten	40	4.6	6.7	1.3
First Grade	38	11.0	7.9	0.5
Second Grade	39	8.5	5.4	0.6
Third Grade	33	12.8	8.8	0.7
Fourth Grade	39	34.2	20.5	0.6
Fifth Grade	46	19.5	13.7	0.6
Sixth Grade	39	16.0	6.7	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Colonial Hills Elementary School	**376**	**28.5**	**23.8**	**1.1**
Kindergarten	62	11.9	25.2	2.2
First Grade	55	13.8	26.7	1.7
Second Grade	50	8.8	8.1	1.2
Third Grade	51	48.9	28.5	0.5
Fourth Grade	56	44.1	29.8	0.7
Fifth Grade	50	53.6	38.7	0.7
Sixth Grade	52	21.5	8.6	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Evening Street Elementary School	**421**	**16.0**	**13.9**	**1.0**
Kindergarten	1	1.0	0.0	0.0
First Grade	78	3.8	7.3	2.1
Second Grade	83	14.2	13.7	0.9
Third Grade	52	24.1	15.2	0.6
Fourth Grade	85	37.6	30.8	0.8
Fifth Grade	66	6.3	6.4	0.9
Sixth Grade	56	7.3	5.6	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Granby Elementary School	**372**	**26.9**	**25.5**	**1.4**
First Grade	67	5.5	16.4	3.0
Second Grade	78	9.8	12.7	1.4
Third Grade	62	65.4	53.5	0.8
Fourth Grade	54	10.8	10.8	1.1
Fifth Grade	51	33.9	27.8	1.0
Sixth Grade	60	42.0	34.8	0.8

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Kilbourne Middle School	**103**	**9.6**	**3.8**	**0.5**
Sixth Grade MSS	13	10.0	7.7	0.7
Seventh Grade MSS	41	6.1	0.7	0.1
Eighth Grade MSS	49	12.3	5.4	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Liberty Elementary School	**267**	**16.8**	**15.2**	**0.7**
Kindergarten	20	2.4	1.8	0.6
Second Grade	23	4.3	1.3	0.2
Third Grade	84	11.6	8.5	0.6
Fourth Grade	62	30.0	28.8	1.0
Fifth Grade	20	30.3	40.5	1.2
Sixth Grade	58	15.7	11.9	0.3

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
McCord Middle School	**53**	**20.7**	**3.7**	**0.2**
Seventh Grade MSS	10	16.6	3.6	0.2
Eighth Grade MSS	43	21.6	3.8	0.2
Phoenix Middle School	161	6.7	5.0	0.7
Seventh Grade MSS	52	9.2	5.6	0.6
Eighth Grade MSS	109	5.4	4.7	0.7

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Slate Hill Elementary School	**492**	**14.1**	**11.3**	**0.9**
Kindergarten	72	7.0	11.1	1.6
First Grade	51	13.0	16.3	1.0
Second Grade	71	18.1	14.7	0.9
Third Grade	82	8.3	6.1	0.7
Fourth Grade	65	18.7	10.6	0.5
Fifth Grade	67	17.4	14.0	1.0
Sixth Grade	84	17.1	8.7	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Thomas Worthington High School	**57**	**7.4**	**1.0**	**0.1**
High School Intervention	57	7.4	1.0	0.1

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Wilson Hill Elementary School	**475**	**17.2**	**14.9**	**1.0**
Kindergarten	61	9.8	22.8	2.4
First Grade	94	10.4	15.3	1.5
Second Grade	75	41.7	30.3	0.7
Third Grade	64	18.0	12.6	0.7
Fourth Grade	56	14.1	7.6	0.6
Fifth Grade	60	16.6	8.9	0.5
Sixth Grade	65	7.9	3.3	0.3

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Worthington Estates Elementary School	**162**	**20.0**	**11.7**	**0.6**
Second Grade	81	17.4	11.0	0.7
Third Grade	2	27.0	7.7	0.3
Fourth Grade	2	12.0	3.4	0.3
Fifth Grade	49	34.4	19.2	0.5
Sixth Grade	28	2.5	1.4	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Worthington Hills Elementary School	**213**	**17.7**	**17.4**	**1.2**
Kindergarten	8	12.0	15.3	2.7
First Grade	31	4.8	8.8	2.0
Second Grade	14	12.1	7.2	0.8
Third Grade	11	28.7	27.1	0.7
Fourth Grade	13	30.8	23.2	0.7
Fifth Grade	66	16.4	19.1	1.2
Sixth Grade	70	22.4	19.1	1.0

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Worthington Kilbourne High School	**104**	**1.7**	**1.1**	**0.6**
High School Intervention	104	1.7	1.1	0.6

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Worthington Park Elementary School	**297**	**14.2**	**12.0**	**0.9**
Kindergarten	25	17.7	36.7	2.1
Second Grade	51	12.1	7.3	0.7
Third Grade	39	10.3	5.8	0.8
Fourth Grade	60	15.5	9.6	0.6
Fifth Grade	64	11.1	15.9	1.5
Sixth Grade	58	19.3	7.9	0.4

	Students	ST Math Logins	Average Syllabus Progress	Average Syllabus Progress per Login
Worthingway Middle School	**373**	**6.1**	**1.4**	**0.2**
Seventh Grade MSS	191	7.5	1.6	0.2
Eighth Grade MSS	182	4.6	1.2	0.3

Worthington School District - Event History

Start Date	School/District	ES Event Type
10/7/2014	Worthington School District	Implementation Planning Meeting
10/15/2014	Worthington School District	Intro to ST Math Training Part 1
10/15/2014	Worthington School District	Intro to ST Math Training Part 1
10/16/2014	Worthington School District	Intro to ST Math Training Part 1
10/16/2014	Worthington School District	Intro to ST Math Training Part 1
11/12/2014	WILSON HILL ELEMENTARY SCHOOL	Site Visit
11/12/2014	SLATE HILL ELEMENTARY SCHOOL	Site Visit
11/13/2014	LIBERTY ELEMENTARY SCHOOL	Site Visit
11/14/2014	EVENING STREET ELEM SCHOOL	Site Visit
12/10/2014	GRANBY ELEMENTARY SCHOOL	Site Visit
12/11/2014	BROOKSIDE ELEMENTARY SCHOOL	Site Visit
12/11/2014	WORTHINGTON ESTATES ELEM SCH	Site Visit
12/11/2014	EVENING STREET ELEM SCHOOL	Site Visit
12/17/2014	BLUFFSVIEW ELEMENTARY SCHOOL	Site Visit
12/17/2014	EVENING STREET ELEM SCHOOL	Site Visit
12/17/2014	BROOKSIDE ELEMENTARY SCHOOL	Site Visit
1/7/2015	EVENING STREET ELEM SCHOOL	Site Visit
1/7/2015	EVENING STREET ELEM SCHOOL	Data Meeting
1/27/2015	EVENING STREET ELEM SCHOOL	Site Visit
2/18/2015	SLATE HILL ELEMENTARY SCHOOL	Data Meeting, Site Visit
3/9/2015	COLONIAL HILLS ELEM SCHOOL	Site Visit
3/24/2015	EVENING STREET ELEM SCHOOL	Site Visit
3/26/2015	WILSON HILL ELEMENTARY SCHOOL	Data Meeting