NCA Elementary School Improvement Plan Clarifying Questions

Submitted to:

State Public Charter School Authority

By:

Nevada Connections Academy
Board of Directors

June 14, 2018

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CLARIFYING QUESTIONS

The clarifying questions are a supplement to and should be considered in context with the NCA Elementary Improvement Plan that was submitted to the Authority on May 4, 2018.

Authority staff is requesting that NCA clarify the following per the Notice of Breach letter dated March 12, 2018:

Question 1

1) Nevada Connections (NCA) was asked to articulate the most essential features of the proposed academic change(s) to the education program to be implemented to correct the level of underperformance. NCA was asked to include information on how these approaches are different from those previously implemented.
Authority staff would like more information on how the following proposed changes are different from those previously implemented:

a) MATH, We Got This! (pgs. 9 – 11);

For the 2018-19 school year, NCA will be participating in the "Math, We've Got This!" initiative, a schoolwide focus on improving math achievement in students. Math We've Got This! (MWGT!) is a research-based professional learning series that has received positive feedback from teachers and delivery specialists at other Connections Academy schools. MWGT! is designed to improve understanding of math content among elementary school teachers, while focusing on pedagogical skills for teachers who are already content experts in math. As part of the initiative, each grade level and school curricular department is asked to own a piece of math and to propose and assess ways that their group could contribute to improving student outcomes. Aside from participating in the initiative, teachers receive specific MWGT! professional development. Learning Coaches (LC) also receive support on instructional practices to assist students achieve a growth mindset. This is a new professional learning initiative and it was not previously implemented at NCA. Previously offered professional learning opportunities are still available to NCA teachers. The professional development previously offered did not include a dedicated focus on math. MWGT! professional learning is now required for all elementary school teachers, as well.

b) Math Time to Talk (pgs. 11 – 12), including the frequency of these sessions; and

Math Time to Talk (Math TtT) is a synchronous math session that encourages students to engage in math discourse, discussion, and problem solving. Participation in math discourse has been shown to be associated with higher performance in final course score and math state assessment at Connections Academy schools (Choi & Walters, 2018).[1]

[1] Choi, J., & Walters, A. (2018, April). *Exploring the impact of small-group synchronous discourse sessions in online math learning*. Paper presented at the meeting of the American Educational Research Association, New York, NY.

Math TtT consists of small group LiveLesson® sessions that appear in student courses approximately every seven lessons. NCA data demonstrates a need to focus on increasing students' ability to engage in math discourse in such a way that promotes an increase in conceptual understanding. Math TtT is available every week (about every seven lessons) to all students in grades 3-5. This program was not previously implemented at NCA. It differs from previous approaches by adding increased emphasis on math discourse to the curriculum. Previous mathematics coursework in grades 3-5 at NCA did not offer a dedicated, synchronous session each week for students to practice math discourse with a certified professional that wasn't directly attached to specific coursework.

c) Response to Intervention Model Training (pgs. 17 – 19).

While NCA is already using multiple strategies to provide struggling students with effective and timely interventions, NCA is retraining all teachers on the multi-tiered instructional approach for the 2018-19 school year. This is to ensure all teachers are up-to-date on our strategies and how to utilize the available resources for students. NCA is retraining all teachers in the Response to Intervention (RtI) program/protocols and on the teachers' role in helping students. NCA is also retraining teachers to interpret data to make instructional decisions, to document their work with students as part of the Personal Learning Plan (PLP), to implement strategies for differentiating instruction, to identify the most appropriate SISPs for students, and to support students who are not progressing or are not engaged in the instructional program. While this Rtl program was in place previously, it was not being utilized effectively by all teachers due to annual turnover and changes to the program. The goal for the 2018-19 school year is to train and "retrain" all teachers to effectively use this resource.

Question 2

2) NCA was asked to articulate how the organization will measure and evaluate academic progress throughout the school year, at the end of the academic year, and the entire school year. This includes the performance of individual students, student cohorts, subgroups and the entire school. Authority staff is requesting the following information:

a) MAP Formative Assessment Section

a) The MAP formative assessment section (pg. 22) describes the mean normative RIT scores as a critical element in determining satisfactory progress for students. A cut-score chart by grade level is referenced, but was not included in the submission.

The cut-score chart for 2016-17 by grade level is provided in Figure 1.

Grade	Read Mean + 1 SD	Read Expected Growth	Math Mean + 1 SD	Math Expected Growth
2	205	13.7	204	13.2
3	214	9.3	216	11
4	221	6.8	227	8.7
5	227	5.2	236	8.1
6	231	4.1	242	6.0
7	234	3.4	248	4.9
8	237	3.2	252	4.3
9	239	2.0	255	2.2
10	241	2.0	256	2.4
11	241	2.0	258	2.0
12	241	2.0	258	2.0

Figure 1. 2016-17 Cut-Score Chart.

b) LEAP Formative Assessment

b) The LEAP formative assessment section (pgs. 22 – 23) seems to indicate that NCA currently utilizes this assessment. If this assessment has already been implemented by NCA, Authority staff would like to review a copy of an anonymized student report, as described on page 22, that provides academic information to teachers and parents so as to identify skills, strengths and weaknesses of a student.

Please see the "Sample LEAP Data View Report" attached as Appendix A.

c) Assessment Definitions

c) On page 23, N[C]A references that Connections Education has specific definitions for each assessment that NCA uses in the formative assessment cycle. It appears that the submission only provides a definition for Satisfactory progress for the LEAP assessment. If there are, in fact, other definitions of satisfactory progress as implied, Authority would like for these to be provided.

In order to gauge student growth on the Formative Assessments, Connections has defined a measure of Satisfactory Progress for Math and English Language Arts Reading. The calculation of this measure varies based on the test that the student is assigned, which can differ by school and by grade.

On each of these assessments, Connections defines three types of success (predictor bands): Likely to be Successful, May be Successful, and Unlikely to be Successful. Please see Appendix B for the breakdown per assessment.

Additionally, we have included the following definitions that Connections uses in the Formative Assessment Cycle.

Longitudinal Evaluation of Academic Progress® (LEAP)

Students receive a score of percent correct on the pretest and posttest LEAP assessments. Students have made satisfactory gains if they score a minimum of 75% on the posttest assessment and/or if they increase their score from the pretest to the posttest by 10 percentage points.

DIBELS® Next

Students who score "At or Above Benchmark" on the Spring Composite Benchmark score are considered to be making Satisfactory Progress.

MAP®

To measure Satisfactory Progress on this assessment we use the mean normative RIT scores and the expected growth measures provided by the testing company, NWEA. This is defined as students who make the expected RIT gain score from pretest to posttest or who score one standard deviation above the mean RIT score on the posttest.

Question 3

3) NCA was asked how teachers and school leadership will be supported in developing capacity around the academic benchmarks and interim and annual assessments. Additionally, NCA was asked what steps the school will take should the school fall short of benchmarks at a school-wide and/or classroom level.
Authority staff is requesting the following information:

a) Teacher Support

a) More details about how teachers will be supported in the implementation of the Math, We Got This! initiative as described on page 10, Math Time to Talk as described on page 11, and the Response to Intervention model training as described on page 18. Specifically, Authority staff requests to know the scope of the professional learning opportunities, the frequency of each, and how participation is to be monitored.

i) Math, We've Got This! initiative as described on page 10

Aside from participating in the MWGT! initiative, teachers will receive specific MWGT! professional development. Returning K-5 teachers who participated in the MWGT! Series during the 2017-2018 school year will take part in a specially-tailored professional learning series directed to the MWGT! campaign, titled *Building Conceptual Understanding in Math*. During this seven-session series, participants will dive deeply into topics such as teaching place value, decimals, fractions, and geometry.

The *Building Conceptual Understanding in Math* Professional Learning Series is:

- Intensive – Participants will identify the purpose of educational practices, examine how they can be implemented in the virtual or blended environment, and collaboratively discuss strategies that can be implemented with students.
- Ongoing – New instructional strategies and the latest learning research will be connected to topics presented and discussed in prior sessions to demonstrate how specific educational practices form the "big picture" of effective instruction. Further discussion and exploration at the school level strengthens these connections.
- Connected to practice – Following each session, participants will apply what they've learned to their professional practice. They will integrate precise, targeted strategies into their planning and instruction, and reflect on the outcomes through the MWGT! ePortfolio Data View.

Participants in the *Building Conceptual Understanding in Math* are content-area teachers, instructional support staff, advisory teachers, and substitute teachers that directly support student learning through courses at select Connections Academy schools. All have completed the MWGT! professional learning previously.

PL Series during the 2018–2019 school year:

September: MWGT! Building Conceptual Understanding in Math Series Overview (recorded session)

How can teachers move beyond an instructional practice focused on computation and a focus on the "right" answer? Through deep content exploration, teachers can build mathematical conceptual understanding in their students. In this recording, teachers will preview the MWGT! Series which focuses on developing strategies for teaching foundational skills including place value, decimals, fractions, geometry, and algebra readiness.

October: Know They Place (Value)

What is the role of place value in connecting foundational concepts? As students build from counting to two-digit whole numbers, comparing and ordering numbers to addition and subtraction, place value is the central component that links these skills. In this session participants will investigate strategies for engaging students in activities that develop understanding of place value and serve as a bridge into activities and problem-based tasks that extend their learning.

November: Get to the Point

Why is the concept of the decimal so challenging for elementary math learners?

Transitioning students from whole-number ideas to the role of the decimal as an indication of the parts of the whole is critical for deepening understanding of the complexity of numbers. In this session, participants will discuss strategies for addressing decimal misconceptions and for laying a solid foundation for future problem-solving applications.

January: "How Many Slices of Pizza Do I Get?"

Why do students typically enjoy the exploratory and discovery phase of learning fractions, but exhibit confusion or frustration when completing fraction computations? Shifting students from that exploratory phase to computation phase a critical point for ensuring that students have the ability to reason and make sense of math. In this session, participants will explore a variety of instructional strategies and tools that can be used to support an immersive and diverse experience with fractions.

February: "Why Can't I Add Apples and Oranges?"

Why are diverse exposures to fractions a critical component for preventing the development of mathematical misconceptions? Oftentimes, fractions are deeply connected to a set of computation rules rather than a conceptual understanding of the meaning of a fraction. In this session, participants will delve deeper into common misunderstandings many students have about fractions and will explore instructional strategies for ensuring a thorough understanding of what a fraction represents.

March: "My Dad is Eight Feet Tall."

How does early skill development of measurement lay the foundation for later success in geometry? Students who develop a sense of relative measurements and feel comfortable using units to describe measurements have a solid conceptual understanding of geometry. In this session, we will explore this relationship and strategies to grow student understanding of these critical foundational skills.

April: X Marks the Spot

Does algebra readiness start as early as first grade? Elementary students are successfully using big algebraic ideas including working with patterns, using symbols, and representing numbers in a variety of ways. In this session, participants will examine instructional strategies for building upon early elementary math skills with an algebraic mindset.

Participation is monitored by the K-8 administrators, the managing teachers and the school leader. All staff members are required to participate, per their evaluation competencies.

ii) Math Time to Talk as described on page 11

Math TtT sessions are moderated by Pearson Online and Blended Learning (Pearson OBL) math subject experts who have a degree in mathematics and have received formal training on:

- presenting the problem,
- guiding the students in the discussion to focus on the process and different ways of approaching the particular problem rather than arriving at the solution,
- Encouraging students to talk to one another about their thought processes, and
- Giving feedback that promotes growth mindset.

iii) Response to Intervention model training as described on page 18.

All NCA teachers are enrolled in a Professional Development series that corresponds to their years of expertise in various areas of instruction, including Response to Intervention (RtI). Teachers new to NCA are enrolled in the 100 series (introduction and instructional-based), second year teachers in the 200 series (expanding beyond first-year resources), and veteran teachers in the 300 series (refreshed information and retraining). For each series, there are seven sessions, usually starting in September and ending in April. Attendance in these professional development sessions is monitored by the K-8 administrators, the managing teachers and the school leader and is connected to EOY evaluations and expected teacher competencies. Sessions are held at various times each week to accommodate teacher schedules.

b) Learning Coach Support

b) More details about how learning coaches will be supported in the implementation of the Math, We Got This! initiative as described on page 10, and on the learning coach training as described on page 17. Specifically, Authority staff requests to know the scope of the professional learning opportunities, the frequency of each, and how participation is to be monitored so as to increase the participation rate from 34% during the 2017-2018 school year.

i) Math, We Got This! initiative as described on page 10

In 2018, NCA launched “Learning Coach Central” to provide parents and LCs with various resources from one central location. Included in these resources are various recordings and documents to assist LCs succeed in assisting students. As part of these resources, LCs have access to multiple articles and recordings to develop positive student mindsets and provide academic support, specifically in math.

Below is a sampling of those math resources/activities for LCs:

- Math Mind Reader - Amaze family and friends by being able to reveal numbers they have in mind.
- Fun With Infinity - Explore shapes through topology. One little twist in a piece of paper leads to some surprising discoveries.
- Let the Math Games Begin! - November 1 marked the start of the 100-day countdown to the 2018 Winter Olympics. There's no need to wait! There are plenty of math games to play now!
- Adventures with Numbers and Words - This month's Family Math Activity explores the linguistics of math and the English words behind the numbers. You will discover some puzzling facts and some surprising patterns!
- It's Just a Matter of Time - This month's Family Math Activity explores the math behind the way time is divided into years, months, and days.
- The Domino Effect - This month's Family Math Activity explores one of the greatest strategy games of all time-dominoes!
- Math Unplugged - This month's Family Math Activity explores various methods for computation without using a digital device.
- Famous Number Phrases - In this month's Family Math Activity challenge yourself to identify famous number phrases.
- Find the Math Superhero In You! - Rate your accomplishments and share strategies for continuing to exercise your mathematical muscles.

In addition to these resources, live sessions are held throughout the year (quarterly) to provide LCs and/or parents support in helping their students remain positive about math. Participation is voluntary in these sessions, but LCs of "at-risk" students will be recommended to attend appropriate sessions by grade appropriate teachers.

ii) Learning Coach Training as described on page 17.

Learning Coach Orientation is available to all Learning Coaches (LC) of students who attend NCA. For the 2018-19 school year, this orientation session is mandatory for all LCs. The Learning Coach Orientation provides LCs with information about their roles and responsibilities, a snapshot of what they and the students they support will encounter during a regular school day, as well as an opportunity for hands-on practice with common student processes and routine tasks. LCs will be given the first two weeks of the school year (or two weeks from their student's enrollment date) to complete the orientation and completion of this orientation session will be monitored by homeroom teachers at all grade levels. Please see Figure 2.

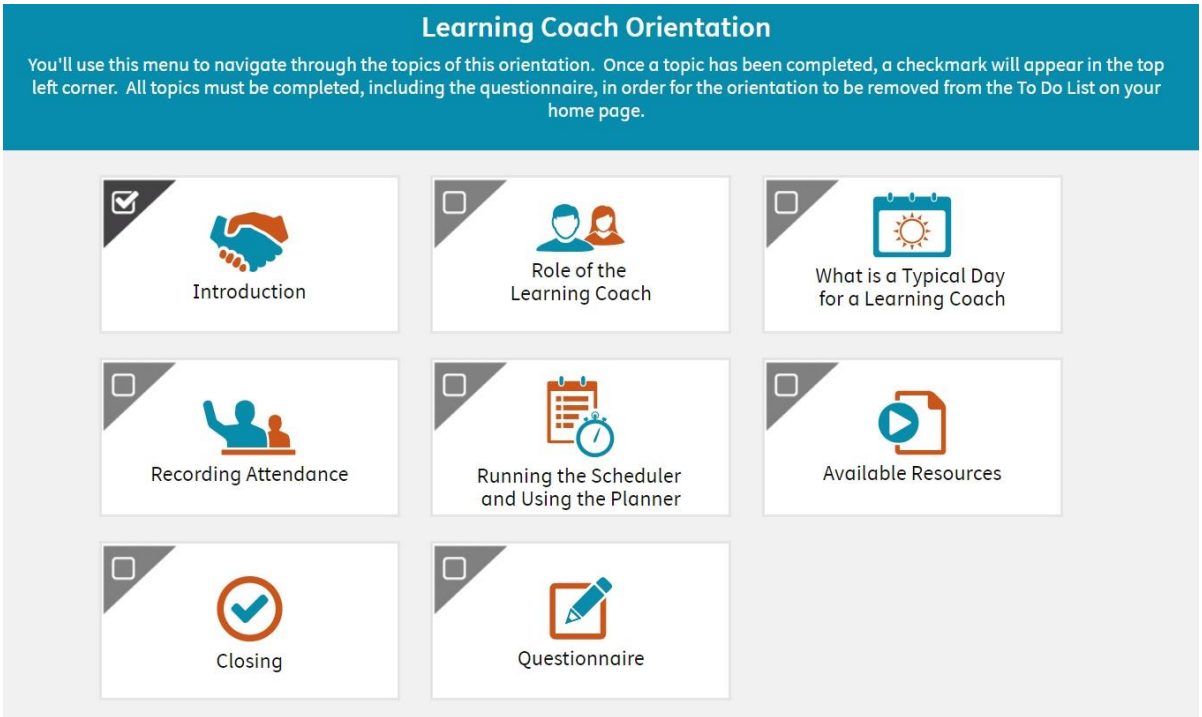


Figure 2. Learning Coach Orientation

c) Professional Learning Communities

c) More details about how frequently Professional Learning Communities (PLCs) will be implemented in the 2018-19 school year, and what student test data will be utilized during these meetings as described on page 19.

i) Professional Learning Communities

At NCA, the entire staff meets in their Professional Learning Community (PLC) teams on a bi-weekly basis. PLC participation and progress is monitored by K-8 administrators, the managing teachers and the school leader managers and the school leadership team. Successful participation and use of SMART (Specific, Measurable, Attainable, Results-Oriented, Time-Bound) goals is part of the EOY evaluation process for all NCA employees.

ii) Student Test Data as described on page 19.

Formative and Summative test data is utilized in academic-based PLC meetings, including (but not limited to) MAP, LEAP, course-based assessments, portfolios and student work samples. Nevada Department of Education School Performance Framework (NSPF) data is also utilized in PLC meetings, when available and appropriate.

FOLLOW-UP REQUESTS

Additionally, Authority staff has a few follow-up requests that are specific to the response received on May 4, 2018:
1) On page 1, the submission notes that the school is working in consultation with a turnaround specialist on targeted interventions, and expects to receive the preliminary findings at the end of May 2018. Authority staff is requesting a copy of these findings.

Perceptual Data Set for NCA is provided as Appendix C. Additionally, NCA is expecting to receive an evaluation report from the Community Training and Assistance Center by the end of July that combines the perceptual data with student achievement data.

NCA will update its Plan based on this report to achieve optimum results.

2) In the rationale for the Math Time to Talk initiative described on page 12, the submission states that two Connections Academy schools participated in a pilot of the Math Time to Talk program. The rationale goes on to state that the outcomes of this pilot were closely studied and verified in order to decide whether the program was successful and should be used in other schools. Because the program was deemed successful, Authority staff is requesting a copy of these results for review.

Please see Appendix D for the Math Time to Talk Pilot Results.

3) In the description of the Lexia Reading Core5, the submission states on page 16 that NCA data shows a need to increase student proficiency in the six areas (phonological awareness, phonics/phonemic awareness, structural analysis, fluency, vocabulary, and comprehension) of reading instruction, including activities focused on academic vocabulary through structural analysis. Authority staff is requesting a copy of this data for review.

The most recent NSPF data (2016-2017) for the elementary school at NCA indicates that on the ELA CRT, 46.3% of students achieved above the cut score. Additionally ELA CRT MGP was 38.5 and AGP was 40.7. This data suggests that NCA needs to continue to work on improving student literacy at the elementary school. To best support student literacy growth and achievement, NCA believes it is important to focus on phonological awareness, phonics/phonemic awareness, structural analysis, fluency, vocabulary, and comprehension. We do not currently have data on each of those areas of literacy instruction, but for students who use Lexia Reading Core5 in the 2018-2019 school year, this data will be generated for those students moving forward.

4) In the description of the Response to Intervention Model Training, the submission explains how the School Support Team (SST) and performance data will be used to support struggling students on page 19. Authority staff would like more information on the RtI tiering process, as well as how frequently students will be re-evaluated for movement within the RtI tiers.

The RtI "At-A-Glance Flowchart" (Appendix E) demonstrates the difference between the Rtl tiers and provides an overview of how students are identified for each tier. Students are re-evaluated for Rtl tiers quarterly, based on performance and/or teacher recommendation.

5) Authority staff agrees with NCAs assessment that the student mobility rate at the school has been a problem the last few years. Page 21 of the submission notes that the school had the highest mobility rate in Nevada in 2015-16 at 73%. Authority staff requests that the school provide the mobility numbers for the 2016-17 and 2017-18 school years.

The data presented on page 21 is the data provided by the Nevada Department of Education on the transiency rate. NDE published this data for the 2016-17 school year and the rate for NCA is 62.5% for 2016-17 (compared to 73.6% for 2015-16). As NDE has not yet published the data for the 2017-18 school year, student mobility data for 2017-18 is not yet available.

As a public school, NCA is open-enrollment and cannot turn away students; thus, we gladly serve each and every student enrolled despite where they are at academically when they come to us. The impact of this mobility on academic performance can be unpredictable from year to year. Similar to students who arrive behind in coursework, studies also indicate that changing schools can have an adverse impact on test scores (Rumberger, 2015).[2]

As stated in our Elementary Improvement Plan, NCA is going to track students as "New to the School" to understand this subgroup better going forward. It is NCA's desire to work collaboratively with the Authority to identify meaningful ways to measure student growth and school performance, particularly with highly mobile students, since NCA and the Authority both recognize understanding mobility rate's impact is a piece of the puzzle for school improvement.

[2] Rumberger, Russell W. (2015). Student Mobility: Causes, Consequences, and Solutions. Boulder, CO: National Education Policy Center. Retrieved 4/27/2018 from http://nepc.colorado.edu/publication/student-mobility.

APPENDIX A – SAMPLE LEAP DATA VIEW REPORT

LEAP provides a periodic checkpoint during the school year to measure progress and support teacher decision making in conjunction with the prior year's state test results and the student's current grade book and associated objective performance report.

LEAP Math Midtest Results

The list of the LEAP Math Subtest Categories is here.

LEAP Math Midtest Taken 2017-18: LEAP MATH 2.5.4
LEAP Math Midtest Score: 82%
LEAP Math Midtest Final Score 2017-18: 82
Results: **Math Midtest Result:** 82% View Math Test
LEAP Math Midtest Subtest 1 2017-18: 100
LEAP Math Midtest Subtest 2 2017-18: 100
LEAP Math Midtest Subtest 3 2017-18: 67
LEAP Math Midtest Subtest 4 2017-18: 83
LEAP Math Midtest Subtest 5 2017-18: 67

NV State Testing Scores (Grades 3-8) -

State Test Scores From Student Records:

State Test Scores for 2016-17

Final Grade 2016-2017: 4
Enrollment Date 1 2016-2017: 8/29/2016
Final Withdrawal Date 1617:

Smarter Balanced 2016-17

Date score reports mailed: 8/18/2017
Tested Grade: 4

Math

Achievement Level: Not Met
Scale Score: 2387
Concepts and Procedures: Below Standard
Problem Solving, Modeling, and Data Analysis: Below Standard
Communicating Reasoning: At/Near Standard

ELA

Achievement Level: Nearly Met

Section Details - Math 5 B: 83% B

Assessment Summary:

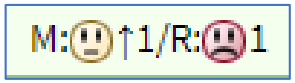
Type	Weight	Score
Test	55%	75%
Quiz	20%	86%
Portfolio Item	15%	100%
Discussion	5%	60%
Participation	5%	133%

Assessment Details:

Show me all assessments, excluding dropped items, in all units of the following types: Discussion Participation Portfolio Item Practice Quick Check Quiz Refl

Drop	Unit	Lesson	Name		Type	Requires	Earned	Possible	Score	Value	Weight	
			Participation		Participation		20	20	100%	20	67%	
			State Test Participation		Participation		20	10	200%	10	33%	
	1	1	Quick Check		Quick Check		6	8	75%	8		
	2	1	Classify Triangles		Quick Check		2	5	40%	5		
	2	2	Classify Quadrilaterals		Quick Check		3	5	60%	5		
	2	3	Continue to Classify Quadrilaterals Quiz		Quiz		7	10	70%	10	13%	
	2	4	Reflection		Reflection		6	6	100%	6		
	2	4	Unit Practice		Practice		1	8	13%	8		

calculations with numbers, and interpret numerical expressions without	100%	2
g two given rules. Identify apparent relationships between corresponding terms. g terms from the two patterns, and graph the ordered pairs on a coordinate plane.	100%	2
	100%	2
lings of multiplication and division to multiply and divide fractions	64%	11
ategories based on their properties	67%	3
a given measurement system	0%	2
concepts of volume and relate volume to multiplication and to addition	80%	5
o solve real-world and mathematical problems	100%	3
hole numbers and with decimals to hundredths	100%	7
	100%	2
	100%	7
Cluster: Use equivalent fractions as a strategy to add and subtract fractions	75%	4
Cluster: Write and interpret numerical expressions	100%	4
Domain: Geometry	83%	6
Domain: Measurement and Data	67%	9
Domain: Number and Operations in Base Ten	100%	14
Domain: Numbers and Operations - Fractions	67%	15
Domain: Operations and Algebraic Thinking	100%	6



Each student has a teacher-facing alert for both math (M) and reading (R), indicating the predicted likelihood of achieving proficiency on the state test. Green is likely proficient, yellow is may be proficient, which red in unlikely. The up arrow in this example indicates that this student's math proficiency has improved but still is low in reading. The 1's indicates that the student is in intervention Tier I.

- **LEAP 2012-13** - LEAP Pretest, Midtest, and Posttest scores for the 2012-2013 School Year- Math and Reading
- **LEAP 2013-14** - LEAP Pretest, Midtest, and Posttest scores for the 2013-2014 School Year- Math and Reading
- **LEAP 2014-15** - LEAP Pretest, Midtest, and Posttest scores for the 2014-2015 School Year- Math an
- **LEAP 2015-16** - LEAP Pretest, Midtest, and Posttest scores for the 2015-2016 School Year- Math an
- **LEAP 2016-17** - LEAP Pretest, Midtest, and Posttest scores for the 2016-2017 School Year- Math an
- **LEAP 2017-18** - LEAP Pretest, Midtest, and Posttest scores for the 2017-2018 School Year- Math an
- **LEAP Midtest (Grades K-8)** - This is the data view to access the LEAP midtest information every w
- **LEAP Midtest Results** - This is the data view to access the LEAP midtest results for families every
- **LEAP Midtest Results-Teacher** - This is the data view to access the LEAP midtest results for schoo
- **LEAP Posttest (Grades K-8)**
- **LEAP Posttest Results**
- **LEAP Posttest Results-Teacher**
- **LEAP Pretest (Grades K-8)** - This is the data view to access the LEAP pretest information every fall
- **LEAP Pretest Results-Teacher** - This is the data view to access the LEAP pretest results for school

From a lost of available data "views", teachers can access a variety individual reports for each student, including current and past years' LEAP results.

When viewing the most current LEAP test results, teachers will also see state test results as well as the LEAP tests results already completed this year.

LEAP Midtest Results - Data for Current School Year

This data view has all of the important information from the LEAP Midtests for the current school year.

Current Homeroom Teacher: Ann McDonald
Start Year (calculated): 2015-2016
The student's current stage: Enrolled
Current Grade Level: 5
Students with disabilities with IEPs:
Enrollment Date: 8/14/2017
Withdrawal Date:
Date DIBELS Next Kindergarten was Taken (Winter):
Proficiency on math section of state test 2016-2017: Below Proficiency
Proficiency on reading section of state test for 2016-2017: Below Proficiency
Student's Predicted Pretest Math Performance: May be Proficient on Math State Test
Student's Predicted Pretest ELAR Performance: Unlikely to be Proficient on Reading State Test
Student's Predicted Midtest Math Performance: Likely to be Proficient on Math State Test
Student's Predicted Midtest ELAR Performance: Unlikely to be Proficient on Reading State Test

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th Midtest Subtest 5 2017-18: 67

The LEAP results include links to the category descriptions and question alignment.

CONNECTIONS EDUCATION

LEAP Subtest Categories - Math

	LEAP Math Subtest 1	LEAP Math Subtest 2	LEAP Math Subtest 3	LEAP Math Subtest 4	LEAP Math Subtest 5	LEAP Math Subtest 6
0	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)		Counting and Cardinality (CC)
1	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)		
2	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)		
3	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)	Numbers and Operations – Fractions (NF)	
4.3	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)	Numbers and Operations – Fractions (NF)	
5.4	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)	Numbers and Operations –	

Teachers can also directly view the student's completed LEAP test.

CONNECTIONS EDUCATION

LEAP Question Alignment - Math

	Operations & Algebraic Thinking (OA)	Number & Operations in Base Ten (NBT)	Measurement & Data (MD)	Geometry (G)	Numbers and Operations – Fractions (NF)	Counting and Cardinality (CC)
0	Questions 9 – 17	Questions 18 – 22	Questions 23 – 28	Questions 29 – 30		Questions 1 – 8
1	Questions 1 – 10	Questions 11 – 20	Questions 21 – 30	Questions 31 – 35		
2	Questions 1 – 10	Questions 11 – 20	Questions 21 – 32	Questions 33 – 40		
3	Questions 1 – 18	Questions 19 – 24	Questions 33 – 45	Questions 46 – 50	Questions 29 – 32	
4.3	Questions 1 – 9	Questions 10 – 21	Questions 36 – 45	Questions 46 – 50	Questions 22 – 35	
5.4	Questions 1 – 6	Questions 7 – 20	Questions 36 – 44	Questions 45 – 50	Questions 21 – 35	

LEAP Math Midtest - 5 (4 GT)

Completed By:
Submitted: Thursday, January 11, 2018 at 7:37 PM
Elapsed Time: 41 minutes
Maximum Time: n/a

Points scored may differ from the grading guidelines because c

✓ Correct ✓ Partial Credit ✗ Incorrect

1. Margo read for 20 minutes each day for 5 days, and she re
expression represents the number of minutes Margo read

- ○ *(0 pts)* (20 + 60) × 7
- ○ *(0 pts)* (5 × 2) +80
- ✓ *(1 pt)* (20 × 5) + (60 × 2)
- ○ *(0 pts)* (60 + 2) + (20 + 5)

1 /1 point

LEAP Math Midtest - 5 (4 GT)

View Objective Performance Report

Completed By:

Submitted: Thursday, January 11, 2018 at 7:37 PM

Elapsed Time: 41 minutes

Maximum Time: n/a

Points scored may differ from the grading guidelines because of teacher review. Contact your program teacher if

✔ Correct ✔ Partial Credit ✘ Incorrect

1. Margo read for 20 minutes each day for 5 days, and she read for 60 minutes each day for 2 days. Which expression represents the number of minutes Margo read on all 7 days? *(1 point)*

   - ○ *(0 pts)* (20 + 60) × 7
   - ○ *(0 pts)* (5 × 2) +80
   - ✔ *(1 pt)* (20 × 5) + (60 × 2)
   - ○ *(0 pts)* (60 + 2) + (20 + 5)

   1 /1 point

2. What is the value of the expression shown? *(1 poi*

   8 + 12 ÷ 2 × (6 + 3)

   - ○ *(0 pts)* 90
   - ○ *(0 pts)* 78
   - ○ *(0 pts)* 63
   - ✔ *(1 pt)* 62

   1 /1 point

Besides viewing the original questions and the student responses, teachers can also link to view the Objective Performance Report, which summarizes the domain, cluster, and objective results for the student from the student's current course data.

5.OA.A.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	100%	2
5.OA.B3: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.	100%	2
Cluster: Analyze patterns and relationships	100%	2
Cluster: Apply and extend previous understandings of multiplication and division to multiply and divide fractions	64%	11
Cluster: Classify two-dimensional figures into categories based on their properties	67%	3
Cluster: Convert like measurement units within a given measurement system	0%	2
Cluster: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition	80%	5
Cluster: Graph points on the coordinate plane to solve real-world and mathematical problems	100%	3
Cluster: Perform operations with multi-digit whole numbers and with decimals to hundredths	100%	7
Cluster: Represent and interpret data	100%	2
Cluster: Understand the place value system	100%	7
Cluster: Use equivalent fractions as a strategy to add and subtract fractions	75%	4
Cluster: Write and interpret numerical expressions	100%	4
Domain: Geometry	83%	6
Domain: Measurement and Data	67%	9
Domain: Number and Operations in Base Ten	100%	14
Domain: Numbers and Operations - Fractions	67%	15
Domain: Operations and Algebraic Thinking	100%	6

APPENDIX B – FORMATIVE ASSESSMENT PREDICTOR BANDS

Formative Assessment Pretest Proficiency Bands for English Language Arts: 2016 – 17

Grades K – 1

	Proficiency Predictor Category	DIBELS Next	PALS	Iowa FAST
K	Likely to be Successful	At or Above Benchmark	Benchmark = Yes	Composite >= 46
	May be Successful	Below Benchmark	---	Composite 30 – 45
	Unlikely to be Successful	Well Below Benchmark	Benchmark = No	Composite <= 29
1	Likely to be Successful	At or Above Benchmark	Benchmark = Yes	Composite >= 46
	May be Successful	Below Benchmark	---	Composite 30 – 45
	Unlikely to be Successful	Well Below Benchmark	Benchmark = No	Composite <= 29

Grades 2 – 12

	Proficiency Predictor Category	LEAP	Scantron	MAP	Iowa FAST
2	Likely to be Successful	>= 70%	Above or High Average	>= 191	>= 55
	May be Successful	51% – 69%	Low Average	159 – 190	40 – 54
	Unlikely to be Successful	<= 50%	Below Average	<= 158	<= 39
3	Likely to be Proficient	>= 67%	Above or High Average	>= 205	>= 87
	May be Proficient	52% – 66%	Low Average	172 – 204	65 – 86
	Unlikely to be Proficient	<= 51%	Below Average	<= 171	<= 64
4	Likely to be Proficient	>= 62%	Above or High Average	>= 215	>= 127
	May be Proficient	56% – 61%	Low Average	183 – 214	100 – 126
	Unlikely to be Proficient	<= 55%	Below Average	<= 182	<= 99
5	Likely to be Proficient	>= 73%	Above or High Average	>= 222	>= 127
	May be Proficient	60% – 72%	Low Average	191 – 221	100 – 126
	Unlikely to be Proficient	<= 59%	Below Average	<= 190	<= 99
6	Likely to be Proficient	>= 64%	Above or High Average	>= 227	
	May be Proficient	58% – 63%	Low Average	196 – 226	
	Unlikely to be Proficient	<= 57%	Below Average	<= 195	
7	Likely to be Proficient	>= 62%	Above or High Average	>= 231	
	May be Proficient	44% – 61%	Low Average	199 – 230	
	Unlikely to be Proficient	<= 43%	Below Average	<= 198	
8	Likely to be Proficient	>= 62%	Above or High Average	>= 234	
	May be Proficient	49% – 61%	Low Average	201 – 233	
	Unlikely to be Proficient	<= 48%	Below Average	<= 200	
9	Likely to be Proficient		Above or High Average	>= 237	
	May be Proficient		Low Average	205 – 236	
	Unlikely to be Proficient		Below Average	<= 204	
10	Likely to be Proficient		Above or High Average	>= 238	
	May be Proficient		Low Average	204 – 237	
	Unlikely to be Proficient		Below Average	<= 203	
11	Likely to be Proficient		Above or High Average	>= 240	
	May be Proficient		Low Average	206 – 239	
	Unlikely to be Proficient		Below Average	<= 205	
12	Likely to be Proficient		Above or High Average	>= 240	
	May be Proficient		Low Average	206 – 239	
	Unlikely to be Proficient		Below Average	<= 205	

Formative Assessment Pretest Proficiency Bands for Math: 2016 – 17

Grades K – 12

	Proficiency Predictor Category	LEAP	Scantron	MAP
K	Likely to be Successful	>= 70%		
	May be Successful	51% – 69%		
	Unlikely to be Successful	<= 50%		
1	Likely to be Successful	>= 70%		
	May be Successful	51% – 69%		
	Unlikely to be Successful	<= 50%		
2	Likely to be Successful	>= 70%	Above or High Average	>= 191
	May be Successful	51% – 69%	Low Average	164 – 190
	Unlikely to be Successful	<= 50%	Below Average	<= 163
3	Likely to be Proficient	>= 84%	Above or High Average	>= 205
	May be Proficient	46% – 83%	Low Average	177 – 204
	Unlikely to be Proficient	<= 45%	Below Average	<= 176
4	Likely to be Proficient	>= 81%	Above or High Average	>= 217
	May be Proficient	44% –80%	Low Average	188 – 216
	Unlikely to be Proficient	<= 43%	Below Average	<= 187
5	Likely to be Proficient	>= 72%	Above or High Average	>= 227
	May be Proficient	50% – 71%	Low Average	197 – 226
	Unlikely to be Proficient	<= 49%	Below Average	<= 196
6	Likely to be Proficient	>= 66%	Above or High Average	>= 234
	May be Proficient	45% – 65%	Low Average	202 – 233
	Unlikely to be Proficient	<= 44%	Below Average	<= 201
7	Likely to be Proficient	>= 66%	Above or High Average	>= 240
	May be Proficient	45% – 65%	Low Average	206 – 239
	Unlikely to be Proficient	<= 44%	Below Average	<= 205
8	Likely to be Proficient	>= 65%	Above or High Average	>= 245
	May be Proficient	46% – 64%	Low Average	208 – 244
	Unlikely to be Proficient	<= 45%	Below Average	<= 207
9	Likely to be Proficient		Above or High Average	>= 249
	May be Proficient		Low Average	212 – 248
	Unlikely to be Proficient		Below Average	<= 211
10	Likely to be Proficient		Above or High Average	>= 251
	May be Proficient		Low Average	211 – 250
	Unlikely to be Proficient		Below Average	<= 210
11	Likely to be Proficient		Above or High Average	>= 254
	May be Proficient		Low Average	213 – 253
	Unlikely to be Proficient		Below Average	<= 212
12	Likely to be Proficient		Above or High Average	>= 254
	May be Proficient		Low Average	213 – 253
	Unlikely to be Proficient		Below Average	<= 212

Formative Assessment Midtest Proficiency Bands for English Language Arts: 2016 – 17

Grades K – 1

	Proficiency Predictor Category	DIBELS Next	PALS	Iowa FAST
K	Likely to be Successful	At or Above Benchmark	Benchmark = Yes	
	May be Successful	Below Benchmark	---	
	Unlikely to be Successful	Well Below Benchmark	Benchmark = No	Coming Soon
1	Likely to be Successful	At or Above Benchmark	Benchmark = Yes	
	May be Successful	Below Benchmark	---	
	Unlikely to be Successful	Well Below Benchmark	Benchmark = No	

Grades 2 – 12

	Proficiency Predictor Category	LEAP	Scantron	MAP	Iowa FAST
2	Likely to be Successful	>= 76%	Above or High Average	>= 199	
	May be Successful	60% – 75%	Low Average	170 – 198	
	Unlikely to be Successful	<= 59%	Below Average	<= 169	
3	Likely to be Proficient	>= 85%	Above or High Average	>= 211	
	May be Proficient	70% – 84%	Low Average	181 – 210	
	Unlikely to be Proficient	<= 69%	Below Average	<= 180	Coming Soon
4	Likely to be Proficient	>= 80%	Above or High Average	>= 219	
	May be Proficient	---	Low Average	190 – 218	
	Unlikely to be Proficient	<= 79%	Below Average	<= 189	
5	Likely to be Proficient	>= 80%	Above or High Average	>= 224	
	May be Proficient	75% – 79%	Low Average	196 – 223	
	Unlikely to be Proficient	<= 74%	Below Average	<= 195	
6	Likely to be Proficient	>= 75%	Above or High Average	>= 229	
	May be Proficient	65% – 74%	Low Average	201 – 228	
	Unlikely to be Proficient	<= 64%	Below Average	<= 200	
7	Likely to be Proficient	>= 65%	Above or High Average	>= 232	
	May be Proficient	55% – 64%	Low Average	203 – 231	
	Unlikely to be Proficient	<= 54%	Below Average	<= 202	
8	Likely to be Proficient	>= 65%	Above or High Average	>= 234	
	May be Proficient	60% – 64%	Low Average	203 – 233	
	Unlikely to be Proficient	<= 59%	Below Average	<= 204	
9	Likely to be Proficient		Above or High Average	>= 237	
	May be Proficient		Low Average	207 – 236	
	Unlikely to be Proficient		Below Average	<= 206	
10	Likely to be Proficient		Above or High Average	>= 238	
	May be Proficient		Low Average	205 – 237	
	Unlikely to be Proficient		Below Average	<= 204	
11	Likely to be Proficient		Above or High Average	>= 240	
	May be Proficient		Low Average	207 – 239	
	Unlikely to be Proficient		Below Average	<= 206	
12	Likely to be Proficient		Above or High Average	>= 240	
	May be Proficient		Low Average	207 – 239	
	Unlikely to be Proficient		Below Average	<= 206	

Formative Assessment Midtest Proficiency Bands for Math: 2016 – 17

Grades K – 12

	Proficiency Predictor Category	LEAP	Scantron	MAP
K	Likely to be Successful	>= 93%		
	May be Successful	60% – 92%		
	Unlikely to be Successful	<= 59%		
1	Likely to be Successful	>= 88%		
	May be Successful	60% – 87%		
	Unlikely to be Successful	<= 59%		
2	Likely to be Successful	>= 80%	Above or High Average	>= 200
	May be Successful	60% – 79%	Low Average	174 – 199
	Unlikely to be Successful	<= 59%	Below Average	<= 173
3	Likely to be Proficient	>= 95%	Above or High Average	>= 211
	May be Proficient	60% – 94%	Low Average	186 – 210
	Unlikely to be Proficient	<= 59%	Below Average	<= 185
4	Likely to be Proficient	>= 85%	Above or High Average	>= 223
	May be Proficient	65% – 84%	Low Average	195 – 222
	Unlikely to be Proficient	<= 64%	Below Average	<= 194
5	Likely to be Proficient	>= 95%	Above or High Average	>= 233
	May be Proficient	70% – 74%	Low Average	203 – 232
	Unlikely to be Proficient	<= 69%	Below Average	<= 202
6	Likely to be Proficient	>= 60%	Above or High Average	>= 238
	May be Proficient	55% – 59%	Low Average	207 – 237
	Unlikely to be Proficient	<= 54%	Below Average	<= 206
7	Likely to be Proficient	>= 60%	Above or High Average	>= 243
	May be Proficient	55% – 59%	Low Average	210 – 242
	Unlikely to be Proficient	<= 54%	Below Average	<= 209
8	Likely to be Proficient	>= 55%	Above or High Average	>= 247
	May be Proficient	---	Low Average	212 – 246
	Unlikely to be Proficient	<= 54%	Below Average	<= 211
9	Likely to be Proficient		Above or High Average	>= 251
	May be Proficient		Low Average	215 – 250
	Unlikely to be Proficient		Below Average	<= 214
10	Likely to be Proficient		Above or High Average	>= 252
	May be Proficient		Low Average	212 – 251
	Unlikely to be Proficient		Below Average	<= 211
11	Likely to be Proficient		Above or High Average	>= 255
	May be Proficient		Low Average	215 – 254
	Unlikely to be Proficient		Below Average	<= 214
12	Likely to be Proficient		Above or High Average	>= 255
	May be Proficient		Low Average	215 – 254
	Unlikely to be Proficient		Below Average	<= 214

Formative Assessment Posttest Proficiency Bands for English Language Arts: 2016 – 17

Grades K – 1

	Proficiency Predictor Category	DIBELS Next	PALS	Iowa FAST
K	Likely to be Successful	At or Above Benchmark	Benchmark = Yes	Composite >= 46
	May be Successful	Below Benchmark	---	Composite 30 – 45
	Unlikely to be Successful	Well Below Benchmark	Benchmark = No	Composite <= 29
1	Likely to be Successful	At or Above Benchmark	Benchmark = Yes	Composite >= 46
	May be Successful	Below Benchmark	---	Composite 30 – 45
	Unlikely to be Successful	Well Below Benchmark	Benchmark = No	Composite <= 29

Grades 2 – 12

	Proficiency Predictor Category	LEAP	Scantron	MAP	Iowa FAST
2	Likely to be Successful	>= 70%	Above or High Average	>= 205	>= 96
	May be Successful	55% – 69%	Low Average	173 – 204	81 – 95
	Unlikely to be Successful	<= 54%	Below Average	<= 172	<= 80
3	Likely to be Proficient	>= 70%	Above or High Average	>= 215	>= 129
	May be Proficient	55% – 69%	Low Average	184 – 214	114 – 128
	Unlikely to be Proficient	<= 54%	Below Average	<= 183	<= 113
4	Likely to be Proficient	>= 70%	Above or High Average	>= 222	>= 157
	May be Proficient	55% – 69%	Low Average	191 – 221	142 – 156
	Unlikely to be Proficient	<= 54%	Below Average	<= 190	<= 123
5	Likely to be Proficient	>= 70%	Above or High Average	>= 228	>= 154
	May be Proficient	55% – 69%	Low Average	197 – 227	139 – 153
	Unlikely to be Proficient	<= 54%	Below Average	<= 196	<= 138
6	Likely to be Proficient	>= 70%	Above or High Average	>= 231	
	May be Proficient	55% – 69%	Low Average	201 – 230	
	Unlikely to be Proficient	<= 54%	Below Average	<= 200	
7	Likely to be Proficient	>= 70%	Above or High Average	>= 234	
	May be Proficient	55% – 69%	Low Average	203 – 233	
	Unlikely to be Proficient	<= 54%	Below Average	<= 202	
8	Likely to be Proficient	>= 70%	Above or High Average	>= 237	
	May be Proficient	55% – 69%	Low Average	204 – 236	
	Unlikely to be Proficient	<= 54%	Below Average	<= 203	
9	Likely to be Proficient		Above or High Average	>= 239	
	May be Proficient		Low Average	206 – 238	
	Unlikely to be Proficient		Below Average	<= 205	
10	Likely to be Proficient		Above or High Average	>= 240	
	May be Proficient		Low Average	204 – 239	
	Unlikely to be Proficient		Below Average	<= 203	
11	Likely to be Proficient		Above or High Average	>= 241	
	May be Proficient		Low Average	205 – 240	
	Unlikely to be Proficient		Below Average	<= 204	
12	Likely to be Proficient		Above or High Average	>= 241	
	May be Proficient		Low Average	205 – 240	
	Unlikely to be Proficient		Below Average	<= 204	

Formative Assessment Posttest Proficiency Bands for Math: 2016 – 17

Grades K – 12

	Proficiency Predictor Category	LEAP	Scantron	MAP
K	Likely to be Successful	>= 70%		
	May be Successful	61% – 70%		
	Unlikely to be Successful	<= 60%		
1	Likely to be Successful	>= 70%		
	May be Successful	61% – 70%		
	Unlikely to be Successful	<= 60%		
2	Likely to be Successful	>= 70%	Above or High Average	>= 207
	May be Successful	61% – 70%	Low Average	179 – 206
	Unlikely to be Successful	<= 60%	Below Average	<= 178
3	Likely to be Proficient	>= 65%	Above or High Average	>= 218
	May be Proficient	51% – 65%	Low Average	190 – 217
	Unlikely to be Proficient	<= 50%	Below Average	<= 189
4	Likely to be Proficient	>= 65%	Above or High Average	>= 229
	May be Proficient	51% – 65%	Low Average	199 – 228
	Unlikely to be Proficient	<= 50%	Below Average	<= 198
5	Likely to be Proficient	>= 65%	Above or High Average	>= 239
	May be Proficient	51% – 65%	Low Average	205 – 238
	Unlikely to be Proficient	<= 50%	Below Average	<= 204
6	Likely to be Proficient	>= 65%	Above or High Average	>= 243
	May be Proficient	51% – 65%	Low Average	209 – 242
	Unlikely to be Proficient	<= 50%	Below Average	<= 208
7	Likely to be Proficient	>= 65%	Above or High Average	>= 247
	May be Proficient	51% – 65%	Low Average	211 – 246
	Unlikely to be Proficient	<= 50%	Below Average	<= 210
8	Likely to be Proficient	>= 65%	Above or High Average	>= 251
	May be Proficient	51% – 65%	Low Average	212 – 250
	Unlikely to be Proficient	<= 50%	Below Average	<= 211
9	Likely to be Proficient		Above or High Average	>= 254
	May be Proficient		Low Average	214 – 253
	Unlikely to be Proficient		Below Average	<= 213
10	Likely to be Proficient		Above or High Average	>= 254
	May be Proficient		Low Average	211 – 254
	Unlikely to be Proficient		Below Average	<= 210
11	Likely to be Proficient		Above or High Average	>= 257
	May be Proficient		Low Average	214 – 256
	Unlikely to be Proficient		Below Average	<= 213
12	Likely to be Proficient		Above or High Average	>= 257
	May be Proficient		Low Average	214 – 256
	Unlikely to be Proficient		Below Average	<= 213

APPENDIX C – PERCEPTUAL DATA SET

Perceptual Data Set for

NEVADA CONNECTIONS ACADEMY

Spring 2018

Prepared by:

ctac | COMMUNITY TRAINING AND ASSISTANCE CENTER

30 Winter Street, 7th Floor • Boston, MA 02108
617.423.1444 • www.ctacusa.com

The following data come from these sources:

- School Engagement Survey (2017-2018)
- Student Satisfaction Survey (2017-2018)
- Parent Satisfaction Survey (2017-2018)
- Focus Groups with Educators, Students, and Parents (Spring 2018)

The data displays are organized by seven dimensions of effective schools:

A. School Context and Culture
B. Leadership and School Improvement
C. Curriculum and Instruction
D. Teacher Effectiveness and Support
E. Student Responsibility and Support
F. Family and School Relationships
G. Network Systems of Support

Dimension A. School Context and Culture

Aligned School Engagement Survey Items for Educators	Percent of Favorable Responses
1. My school is moving in the right direction	77
2. I feel connected to my colleagues	74
3. My manager keeps me informed about updates that impact my job	94
4. I see myself still working at my school next school year	91
5. My school motivates me to go beyond what I would in a similar role elsewhere	77

Aligned Student Satisfaction Survey Items

1. How much do you like Connections Academy?	K-2 Response	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	*39*	*99*	---	---
I like Connections Academy a lot.	**90%**	**69%**	---	---
I like Connections Academy a little.	5%	19%	---	---
I dislike Connections Academy a little.	3%	5%	---	---
I dislike Connections Academy a lot.	3%	7%	---	---

2. What letter grade would you give to your Connections Academy school for the 2017-2018 school year?	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	*99*	*174*	*139*
A	---	**52%**	**49%**	**53%**
B	---	32%	30%	27%
C	---	8%	17%	14%
D	---	6%	3%	5%
F	---	2%	1%	0%

3. Overall, how satisfied are you with the Connections Academy program?	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Very Satisfied	---	---	**61%**	**70%**
Somewhat Satisfied	---	---	29%	23%
Somewhat Dissatisfied	---	---	8%	6%
Very Dissatisfied	---	---	2%	1%

Dimension A: School Context and Culture

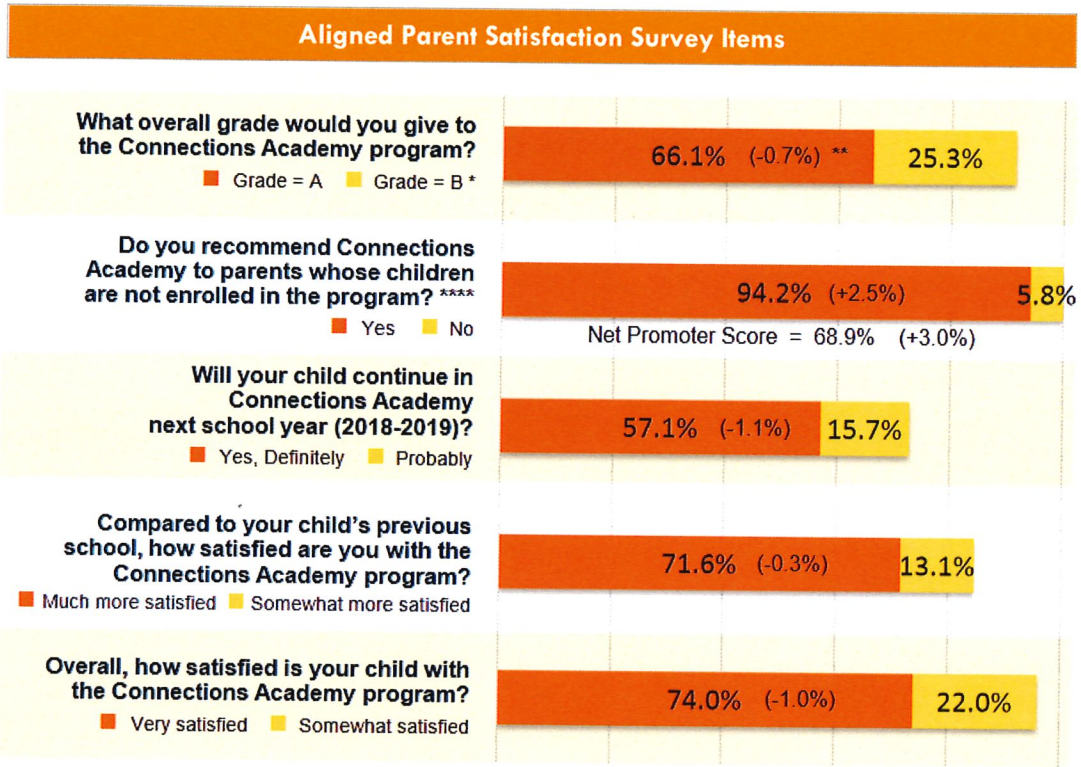
Aligned Student Satisfaction Survey Items

4. *Compared to your previous school, how satisfied are you with Connections Academy?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*171*	*139*
Much more satisfied	---	---	**51%**	**60%**
Somewhat more satisfied	---	---	29%	24%
Somewhat less satisfied	---	---	15%	12%
Much less satisfied	---	---	5%	4%

5. *Please tell us how much you agree or disagree with the following statement…*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
I am enjoying the program				
Sample Size	---	---	*174*	*139*
Strongly Agree	---	---	**49%**	**53%**
Agree	---	---	37%	36%
Disagree	---	---	10%	9%
Strongly Disagree	---	---	5%	1%

6. *Will you continue all the way through 12th grade with Connections Academy?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*113*
Yes, Definitely	---	---	14%	**43%**
Probably	---	---	19%	23%
Maybe	---	---	13%	15%
Probably Not	---	---	**21%**	8%
Definitely Not	---	---	16%	7%
I don't know			17%	4%

Dimension A: School Context and Culture



Focus Group Themes

Most teachers feel they are well supported and that there is good collaboration among the teachers. Some teachers feel overly directed and would like to have more trust and support from the leadership. Teachers, parents, and students all report there is a good relationship between teachers and students. It can sometimes be challenging, however, to get some students involved. Parents like Nevada Connections Academy (NCA) for such reasons as the freedom to manage one's own time, the flexibility afforded, personalized instruction, and higher levels of parental engagement. Parents also appreciate the school's support of their students.

> *All teachers I've met are nice and I learn a lot. Back at my old school, they didn't care about me. They just wanted me out of class. These teachers saw it and included me.*
>
> -Student

> *[Students are] succeeding with NCA where they would be failing at the district schools. I like the more direct involvement and knowing what's going on day-to-day. You get more of the one-on-one help if you need it…It's not a guessing game.*
>
> -Parent

> *NCA is a big family and we all benefit from the collaborative nature of this school. Teachers work together to collaborate on curriculum, planning, and to discuss students when necessary. I also feel that there is no hesitation to ask questions and everyone is very open to help out.*
>
> -Teacher

Dimension B. Leadership and School Improvement

Aligned School Engagement Survey Items for Educators	Percent of Favorable Responses
1. The leadership team at my school has communicated a vision that motivates me	85
2. I have confidence in the leadership team at my school	84
3. My school's leadership team uses data to make informed decisions	88
4. My School Leader sets a clear direction for my school	55
5. The leadership team at my school demonstrates that people are important to the school's success	93
6. My School Leader is accessible to and known by our employees	65
7. My school's leadership team clearly communicates information that affects our school	86
8. I have the ability to impact change at my school	78
9. Our school's leadership team is transparent about school changes	82
10. My manager, or someone else, has communicated some clear actions based on recent survey results	41
11. My manager does a good job involving staff in decisions that affect them	88
12. I feel comfortable speaking with my manager about my needs	91
13. My manager does a good job explaining the rationale for decisions	89
14. My manager provides regular performance feedback	91
15. My manager is a great role model for my school	90
16. My manager is invested in my development and continued growth	86

Aligned Student Satisfaction Survey Items
No aligned Student Satisfaction Survey items found at this time

Aligned Parent Satisfaction Survey Items
No aligned Parent Satisfaction Survey items found at this time

Dimension B. Leadership and School Improvement

Focus Group Themes

Teachers and parents feel the leadership team is approachable and supportive. Parents and teachers also note the rapid response time and availability of school leaders. Teacher leadership is very evident at NCA. Teachers serve a variety of roles (e.g., manager, team lead, coach) to support their colleagues. The overall communication is good, with some teachers hoping to get more consistent messaging from school leaders. Teachers tend to report instructional leadership as coming from the broader Connections Academy network or a colleague.

> *This year has been challenging…we have leadership from corporate, then leadership from the state, and leadership here. Those visions don't always line up…[School leaders] have done a good job of maintaining the course.*
>
> -Teacher

> *We have the problem of getting conflicting messages from different leaders, particularly miscommunications related to deadlines and what is required to do.*
>
> -Teacher

> *We've never had a problem getting a hold of the administrators. They are responsive and provide timely responses. They send emails and check in on a regular basis.*
>
> -Parent

Dimension C. Curriculum and Instruction

Aligned School Engagement Survey Items for Educators

No aligned School Engagement Survey items found at this time

Aligned Student Satisfaction Survey Items

1. *Did you enroll in a Connections Academy national club or attend any national special events (such as the Music Contest) this year?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	*39*	*99*	*174*	*139*
Yes	**51%**	20%	9%	6%
No	49%	**80%**	**91%**	**94%**

2. *Have you gone on a field trip or been to another school-sponsored event this school year?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	*39*	*99*	*174*	*139*
Yes	**51%**	**54%**	34%	23%
No	49%	46%	**66%**	**77%**

3. *Overall, how satisfied are you with the course options available to you?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	---	*139*
Very Satisfied	---	---	---	**58%**
Somewhat Satisfied	---	---	---	32%
Somewhat Dissatisfied	---	---	---	9%
Very Dissatisfied	---	---	---	1%

Dimension C. Curriculum and Instruction

Aligned Student Satisfaction Survey Items

4. K-5 Prompt: Please let us know how much you like your Connections Academy courses.			4. 6-12 Prompt: Please let us know how satisfied you are with your Connections Academy courses.		
	K-2 Responses	3-5 Responses		6-8 Responses	9-12 Responses
a. Health and Physical Education					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**77%**	**52%**	**Very Satisfied**	**63%**	**63%**
It is OK	21%	44%	**Somewhat Satisfied**	29%	32%
I don't like it	3%	4%	**Not Very Satisfied**	5%	4%
			Not at all Satisfied	3%	1%
b. Art/Humanities					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**82%**	**62%**	**Very Satisfied**	**56%**	**58%**
It is OK	15%	32%	**Somewhat Satisfied**	30%	34%
I don't like it	3%	6%	**Not Very Satisfied**	9%	4%
			Not at all Satisfied	5%	4%
c. Language Arts					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**59%**	**47%**	**Very Satisfied**	**49%**	**64%**
It is OK	38%	43%	**Somewhat Satisfied**	44%	29%
I don't like it	3%	9%	**Not Very Satisfied**	3%	6%
			Not at all Satisfied	4%	1%
d. Math					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**59%**	35%	**Very Satisfied**	**49%**	**58%**
It is OK	36%	**42%**	**Somewhat Satisfied**	39%	33%
I don't like it	5%	22%	**Not Very Satisfied**	10%	6%
			Not at all Satisfied	2%	3%
e. Science					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**85%**	**70%**	**Very Satisfied**	**62%**	**64%**
It is OK	15%	28%	**Somewhat Satisfied**	30%	28%
I don't like it	0%	2%	**Not Very Satisfied**	4%	6%
			Not at all Satisfied	3%	2%
f. Social Studies					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**77%**	**46%**	**Very Satisfied**	**59%**	**68%**
It is OK	21%	44%	**Somewhat Satisfied**	30%	27%
I don't like it	3%	9%	**Not Very Satisfied**	6%	3%
			Not at all Satisfied	4%	2%
g. Technology					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**64%**	**58%**	**Very Satisfied**	**49%**	**54%**
It is OK	31%	32%	**Somewhat Satisfied**	37%	34%
I don't like it	5%	10%	**Not Very Satisfied**	6%	7%
			Not at all Satisfied	7%	5%
h. Electives (K-5)/Career Tech (6-12)					
Sample Size	*39*	*99*	*Sample Size*	*174*	*139*
I really like it	**54%**	45%	**Very Satisfied**	**43%**	**55%**
It is OK	41%	**49%**	**Somewhat Satisfied**	42%	35%
I don't like it	5%	5%	**Not Very Satisfied**	9%	6%
			Not at all Satisfied	6%	4%

Dimension C. Curriculum and Instruction

Aligned Student Satisfaction Survey Items				
5. Have you participated in a real-time discussion or instruction through Connections Academy's LiveLesson®?	**K-2 Responses**	**3-5 Responses**	**6-8 Responses**	**9-12 Responses**
Sample Size	---	---	*174*	*139*
Yes	---	---	**82%**	**87%**
No	---	---	18%	13%

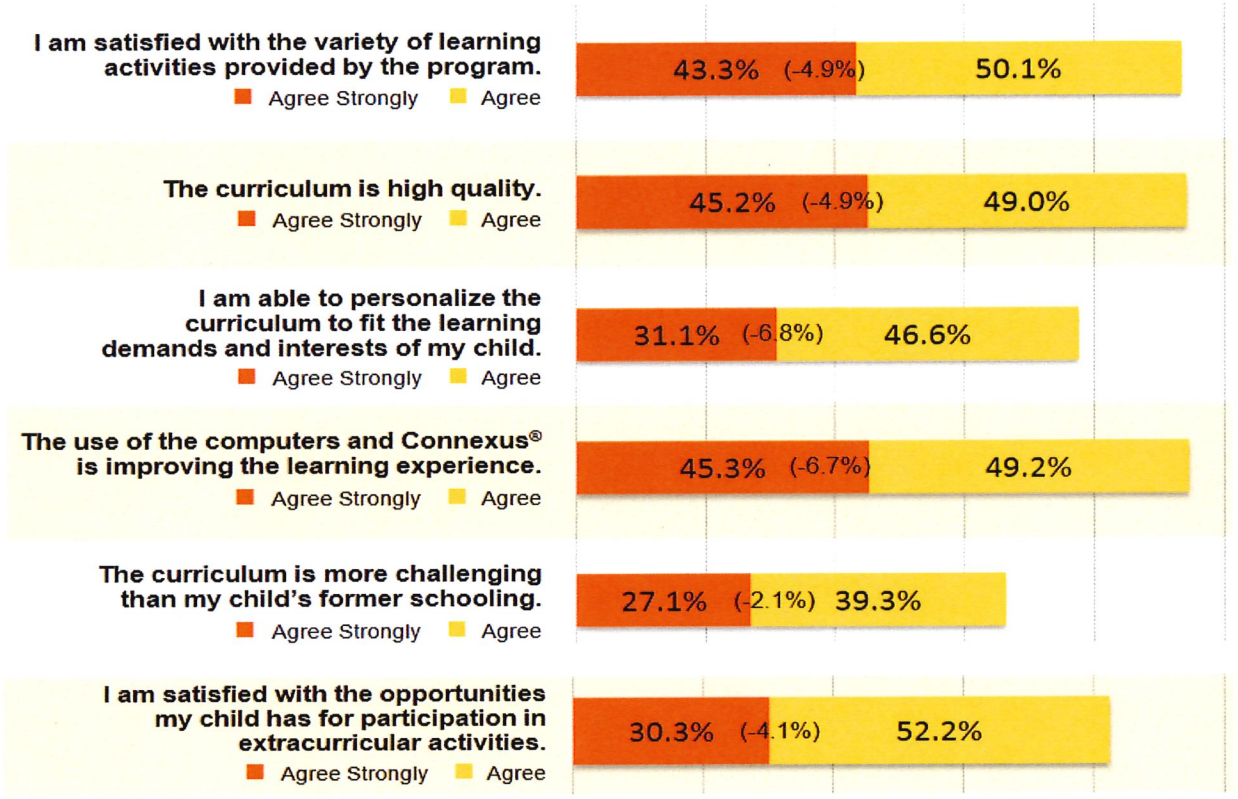
6. Why do you attend LiveLession® sessions?	**K-2 Responses**	**3-5 Responses**	**6-8 Responses**	**9-12 Responses**
Sample Size	---	---	*143*	*121*
To engage with my teacher	---	---	66%	60%
To engage with other students	---	---	36%	30%
To receive instructional help	---	---	**80%**	**84%**

7. Have you ever had a hard time learning something in school (or struggled in class)?	**K-2 Responses**	**3-5 Responses**	**6-8 Responses**	**9-12 Responses**
Sample Size	*39*	*99*	*174*	*139*
Yes	**56%**	**90%**	**90%**	**84%**
No	44%	10%	10%	16%

8. Please tell us how much you agree or disagree with the following statement…	**K-2 Responses**	**3-5 Responses**	**6-8 Responses**	**9-12 Responses**
My courses/subjects are more challenging than my former schooling (public, home, or other)				
Sample Size	---	---	*171*	*139*
Strongly Agree	---	---	38%	**33%**
Agree	---	---	**45%**	32%
Disagree	---	---	12%	29%
Strongly Disagree	---	---	5%	6%

Dimension C. Curriculum and Instruction

Aligned Parent Satisfaction Survey Items



Dimension C. Curriculum and Instruction

Focus Group Themes

Teachers think the curriculum is very rigorous, and it can be challenging for some students to keep up. However, teachers report that when students do take ownership of their learning, they have higher achievements. Teachers use data to identify students' learning needs and progress in their Teacher Learning Communities (TLCs). However, finding time and getting motivated to dig deep into the data can be a challenge. Teachers appreciate the freedom to modify the curriculum to better meet students' individual needs. Parents tend to like the curriculum, and comment on its rigor, sometimes stating it is beyond their expectations. Students agree that the curriculum at the NCA is more conducive to learning, and report getting more content than at other schools. Some feel it is the way that lessons and tests are presented that makes it difficult. Students and parents report that portfolios are worthwhile though complex, and can be a challenge when multiple portfolios are due at the same time. Portfolio directions are sometimes not explicit enough for students and families. Students and families feel there is room for more innovation in the lessons. They cite an example instructional practice of reading a long text and answering questions, which they feel happens too frequently. Students hope to have more face-to-face collaborations with their peers.

> *The curriculum is incredibly challenging. I would put our curriculum against any college prep school in the nation....I am glad we have the latitude to modify the curriculum.*
>
> -Teacher

> *If they have more pop-ups within the lessons within the subject, it might make it more meaningful for them. That could help keep the spark for the kids. I was very excited about the video chatting...The attention span is longer when there's interaction.*
>
> -Parent

> *You're teaching yourself as you read through a lesson. In my old school...no big projects. At this school, there are a lot of science experiments—awesome!*
>
> -Student

Dimension D. Teacher Effectiveness and Support

Aligned School Engagement Survey Items for Educators	Percent of Favorable Responses
1. I can see the opportunities for continued growth and development	77
2. I am happy with my current role related to what was described to me	83
3. I have enough autonomy to perform my job effectively	95
4. I receive appropriate recognition for good school work at my school	85
5. My team inspires me to do my best work	81
6. My work gives me a feeling of personal accomplishment	89
7. Staff at my school are held mutually accountable for student achievement	74
8. Feedback is openly shared at my school	79
9. Generally, I believe my workload is reasonable for my role	66
10. I know what I need to do to be successful in my role	95
11. Our school's leadership team is transparent about school changes	82
12. I am satisfied working with my immediate manager	90

Aligned Student Satisfaction Survey Items

1. *How many stars, out of five, would you give your teacher?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	*39*	*99*	*174*	*139*
5 Stars	87%	74%	56%	60%
4 Stars	5%	16%	28%	28%
3 Stars	3%	6%	12%	11%
2 Stars	3%	3%	2%	1%
1 Star	3%	1%	2%	1%
0 Stars	0%	0%	1%	0%

2. *How satisfied are you with the amount of contact you have with your teachers?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Very Satisfied	---	---	**55%**	**71%**
Somewhat Satisfied	---	---	39%	24%
Somewhat Dissatisfied	---	---	4%	4%
Very Dissatisfied	---	---	2%	1%

Dimension D. Teacher Effectiveness and Support

Aligned Student Satisfaction Survey Items				
3. *How frequently are you in touch with your Connections Academy teachers?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Daily	---	---	14%	9%
Once a week or more frequently	---	---	**39%**	**42%**
Three times a month	---	---	16%	19%
Twice a month	---	---	9%	17%
Once a month	---	---	14%	6%
Less than once a month	---	---	9%	7%

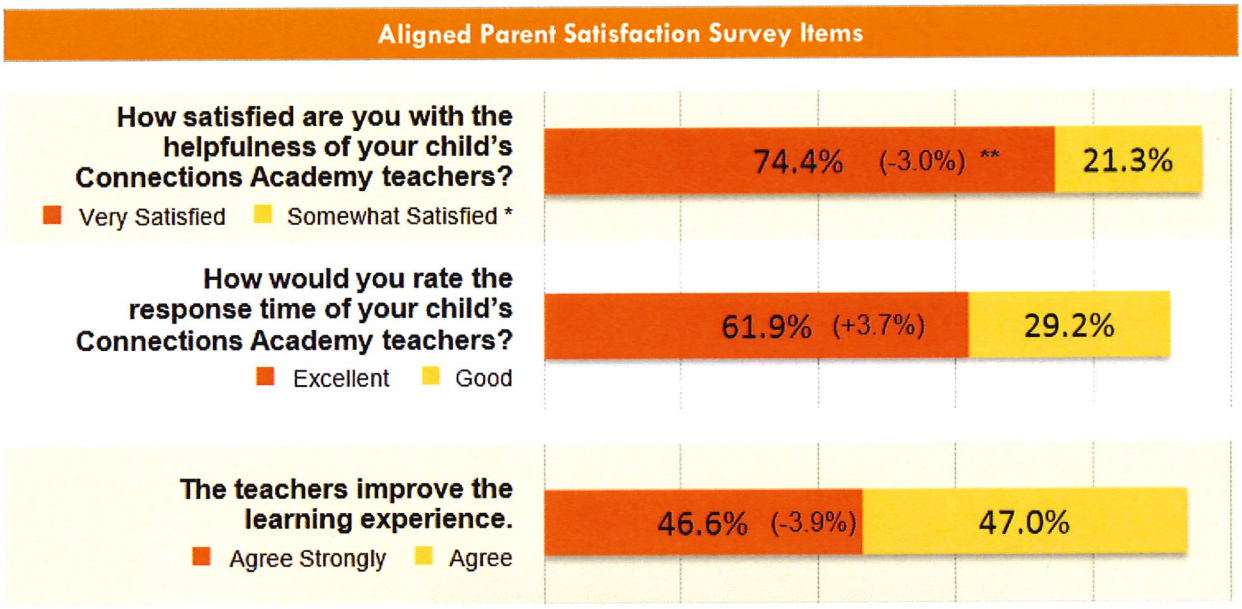
4. *What is the most common method of communication between you and your Connections Academy teachers?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
WebMail	---	---	**57%**	**53%**
Telephone	---	---	18%	31%
Mail	---	---	1%	0%
LiveLesson® session	---	---	23%	17%

5. *Please rate the response time of your teachers*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Excellent	---	---	40%	**53%**
Good	---	---	**41%**	37%
Fair	---	---	17%	9%
Poor	---	---	2%	1%

6. *We would like to know whether the teachers' responses to your questions are informative and helpful. In general, how satisfied are you with the helpfulness of your Connections Academy teachers?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Very Satisfied	---	---	**56%**	**67%**
Somewhat Satisfied	---	---	38%	29%
Somewhat Dissatisfied	---	---	5%	3%
Very Dissatisfied	---	---	1%	1%

7. *Do you read the Student Experience E-News that is sent to your WebMail box every other week?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Yes	---	---	21%	19%
No	---	---	13%	22%
Sometimes	---	---	**53%**	**50%**
Not sure what the Student Experience E-News is	---	---	13%	9%

Dimension D. Teacher Effectiveness and Support



Focus Group Themes

Teachers feel supported overall and acknowledge there is a learning curve for educators who transfer from other school settings. Teachers collaborate and review data together to discuss students' progress. Teachers report class sizes are large, which brings challenges such as meeting students' individual needs. Parents and students are pleased on the whole with their teachers and state that interactive times during lessons are among the most effective. Teachers appreciate the professional development on strategies for delivering LiveLessons® and having nationwide collaboration. Teachers feel some of the professional development offerings are less relevant that others. Some teachers would like to have more professional development that is subject specific and other training opportunities outside the network.

> *We do the portfolios, and teachers give us feedback. That is positive. If they do bad, the teacher is calling us, right away. [The teacher] will pinpoint it and call us, versus the district schools where teachers don't care.*
>
> -Parent

> *The only thing I'd like to see is that because we have so many teachers that come from the brick and mortar setting, just like a fireman going to be a policeman, a special training for them would be helpful.*
>
> -Teacher

> *The sheer amount of data we have on student performance is just mind-boggling. However, the time to drill down to that data is not always available. The one negative…is the number of students [teachers] have.*
>
> -Teacher

Dimension E. Student Responsibility and Support

Aligned School Engagement Survey Item for Educators	Percent of Favorable Responses
1. My school provides a safe environment for students to learn	99

Aligned Student Satisfaction Survey Items

1. *Please rate how your teacher(s) helped when you were having a hard time learning...*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
a. My teacher(s) was easy to get in touch with when I needed help				
Sample Size	*22*	*89*	*157*	*117*
Strongly Agree	**68%**	**60%**	**46%**	**57%**
Agree	27%	30%	45%	38%
Disagree	0%	8%	6%	3%
Strongly Disagree	5%	2%	2%	1%
b. My teacher(s) responded quickly				
Sample Size	*22*	*89*	*157*	*117*
Strongly Agree	**68%**	42%	33%	**50%**
Agree	27%	**43%**	**45%**	36%
Disagree	0%	12%	19%	12%
Strongly Disagree	5%	3%	3%	2%
c. My teacher(s) provided the help that I needed				
Sample Size	*22*	*89*	*157*	*117*
Strongly Agree	**77%**	**70%**	**51%**	**54%**
Agree	18%	24%	37%	40%
Disagree	0%	6%	9%	5%
Strongly Disagree	5%	1%	3%	1%
d. My teacher(s) made me feel more confident				
Sample Size	*22*	*89*	*157*	*117*
Strongly Agree	**73%**	**72%**	**45%**	**44%**
Agree	23%	18%	34%	43%
Disagree	0%	6%	13%	11%
Strongly Disagree	5%	4%	8%	2%

2. *When you started with Connections Academy, did you feel you had all of the resources and support that you needed to be successful?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*108*	*63*
Definitely	---	---	**61%**	**63%**
For the most part	---	---	27%	29%
Not really	---	---	8%	5%
Not at all	---	---	4%	3%

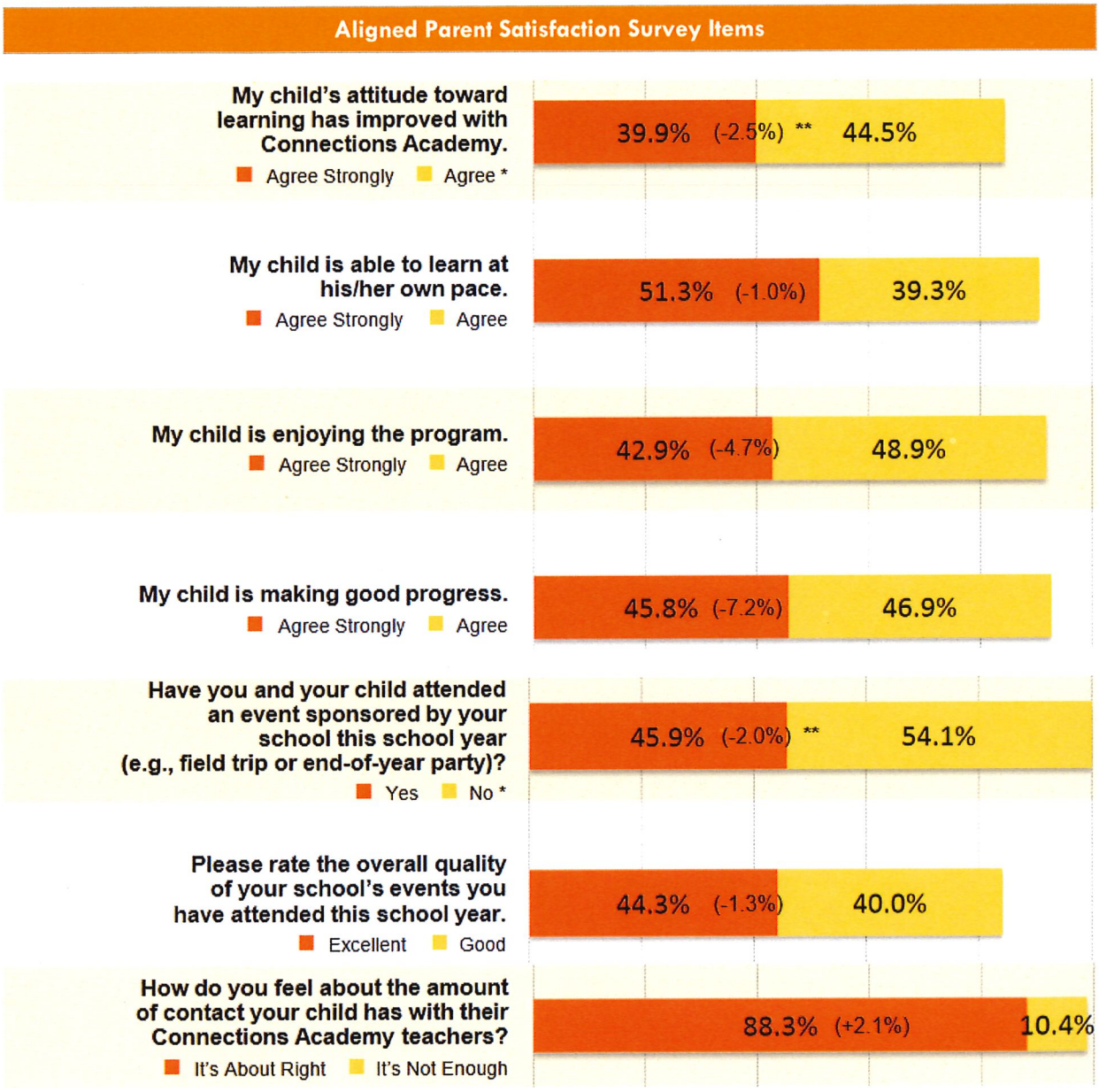
Dimension E. Student Responsibility and Support

Aligned Student Satisfaction Survey Items

3. *Have you made friends through Connections Academy?*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	*39*	*99*	---	---
I have made many good friends through Connections Academy	21%	17%	---	---
I have made at least one good friend through Connections Academy	15%	34%	---	---
I have not made any friends through Connections Academy	**64%**	**48%**	---	---

4. *Please tell us how much you agree or disagree with the following statements…*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
a. I am able to interact with other students				
Sample Size	---	---	*174*	*139*
Strongly Agree	---	---	18%	**29%**
Agree	---	---	**37%**	**29%**
Disagree	---	---	28%	28%
Strongly Disagree	---	---	17%	13%
b. The use of computer and Connexus® is improving my learning experience				
Sample Size	---	---	*174*	*139*
Strongly Agree	---	---	39%	**48%**
Agree	---	---	**41%**	38%
Disagree	---	---	14%	11%
Strongly Disagree	---	---	6%	3%
c. I am able to learn at my own pace				
Sample Size	---	---	*174*	*139*
Strongly Agree	---	---	**57%**	**66%**
Agree	---	---	30%	26%
Disagree	---	---	8%	6%
Strongly Disagree	---	---	5%	2%
d. My attitude towards learning has improved since starting with Connections Academy				
Sample Size	---	---	*174*	*139*
Strongly Agree	---	---	**37%**	**45%**
Agree	---	---	33%	28%
Disagree	---	---	21%	22%
Strongly Disagree	---	---	9%	5%

Dimension E. Student Responsibility and Support



Dimension E. Student Responsibility and Support

Focus Group Themes

Teachers report that while some of the more self-disciplined students own their learning and are committed to school obligations, some others need help and parental involvement is the key. Teachers appreciate the significance of the partnership among teachers, parents, and students, though they note it is not happening across all NCA families, and state those students with parental involvement are on much more solid footing for success. Teachers find NCA a school where they get to know their students very well—more so than any other school they have worked at. Parents agree that it is a joint endeavor between parents and teachers to motivate students, and some parents tend to find teachers supportive and responsive. Students express a desire to spend more time with their peers and several report having limited audio participation with their teachers during lessons. Meanwhile, students feel very well supported at NCA and there are many resources available when they need them. Students hope NCA can provide more LiveLessons®, better explanations of the lessons, and more help in understanding concepts and skills when they get stuck.

> *For me the hardest part is working up the courage to actually socialize, like the webcam, mic, etc.*
> -Student

> *Teachers are very supportive. One activity was very confusing. I sent a webmail...they decided to do away with that activity. In the beginning, we didn't give [my student] that responsibility. Now that's changed. [My student is] now much more on task. They have to be intrinsically motivated. I can click through the grade book and see...it's a huge investment of their responsibility. If they're not actually trying, they're not going to get anything out of it. The student has to be invested.*
> -Parent

> *Kids hiding out is another issue that we face. I think it's important the triangle approach of teacher, parent, and student—that's when it's really working. When they're all invested, the student will show up, and as a result their grades go up.*
> -Teacher

Dimension F. Family and School Relationships

Aligned School Engagement Survey Item for Educators	Percent of Favorable Responses
1. My school provides high quality services to students and families	87

Aligned Student Satisfaction Survey Items

No aligned Student Satisfaction Survey items found at this time

Aligned Parent Satisfaction Survey Items

Focus Group Themes

Teachers report strong connections—often in the superlative—with parents and homeroom classes. Teachers and parents note the "You Can Book Me" function as helpful. Teachers have concerns on accepting students late in the semester and the large enrollment of students. Teachers emphasize the importance of engaging families using multiple approaches (e.g., video, newsletters, meetings, WebMails). They call students in rotation and parents can also request a call from teachers. Some teachers think that parents may receive too many school communications. Parents and students share favorable perceptions that communication efforts are strong at NCA.

> *I am amazed at how smart my kids are. They have learned so much. I think the curriculum is great and they have everything on there. They have support and it's not making it easy for them. I'm learning too all the time.*
>
> -Parent

> *It's not home school, but school at home—that's a huge mind shift. Persistence and talking one-on-one with the kids, we just want to let them know they can reach the goal, instead of feeling overwhelmed. We can do this.*
>
> -Teacher

> *Teachers are communicating well with the families. My teacher is really supportive. She contacts about every other week…really nice.*
>
> -Student

Dimension G. Network Systems of Support

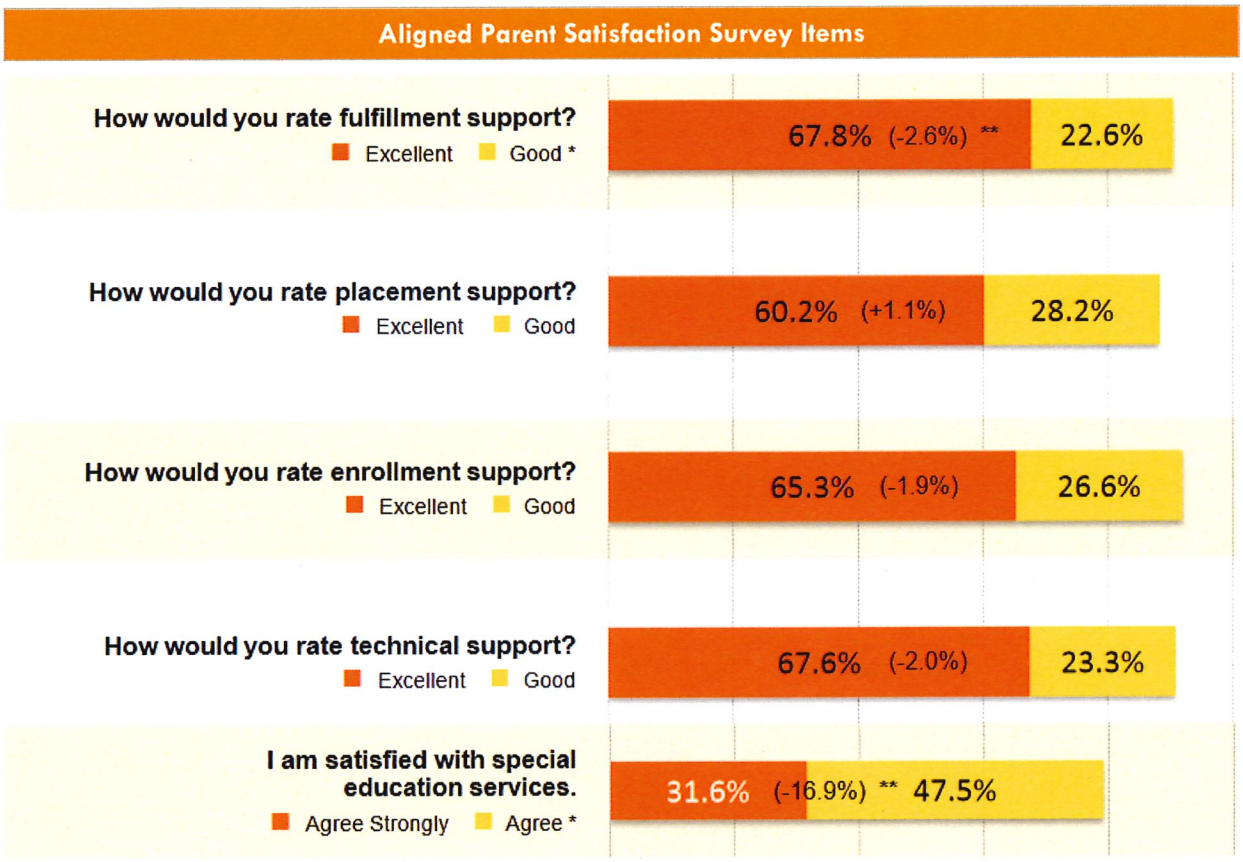
Aligned School Engagement Survey Item for Educators	Percent of Favorable Responses
1. I believe action will take place as a result of this survey	56
2. I have the tools and resources to do my job well	89
3. Most of the systems and processes here support me getting my work done effectively	86
4. Workloads are divided fairly among the staff at my school	60
5. I am proud to work at my school	88
6. I rarely think about looking for a job at another school	75

Aligned Student Satisfaction Survey Items

1. *How satisfied are you with the functionality of Connexus® (e.g., navigating…)*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Very Satisfied	---	---	**58%**	**68%**
Somewhat Satisfied	---	---	36%	28%
Somewhat Dissatisfied	---	---	3%	1%
Very Dissatisfied	---	---	3%	2%

2. *How satisfied are you with the functionality of Connexus® (e.g., look and feel…)*	K-2 Responses	3-5 Responses	6-8 Responses	9-12 Responses
Sample Size	---	---	*174*	*139*
Very Satisfied	---	---	**56%**	**64%**
Somewhat Satisfied	---	---	37%	31%
Somewhat Dissatisfied	---	---	3%	3%
Very Dissatisfied	---	---	3%	2%

Dimension G. Network Systems of Support



Dimension G. Network Systems of Support

Focus Group Themes

Teachers appreciate the autonomy and work environment that the Connections Academy approach provides. Teachers cite strong reasons for staying with the school, such as support, knowing students and families better, and having the freedom to teach. Teachers and parents tend to speak highly of the Connections Academy network, citing they are supplying resources and assistance in a timely manner. A few ongoing technology challenges are noted as not yet being fully resolved. Teachers and parents alike point to the recent advocacy and support the network is providing during increased state scrutiny. Teachers hope to be able to collaborate with other Connection Academies, and noted compensation may not always match the workload. Parents state NCA better meets their students' needs. Students report they like the opportunities at NCA, such as meeting with Aces players, the Beehives, the Renaissance Fair, and the Magical Forest. Students and parents alike comment they enjoy the safety of going to school at home, the flexibility of scheduling, and the ability to learn at an individual pace.

> *I appreciate that they give us a lot of autonomy to make change--Not a lot of bureaucracy and red tape...It would be great if we could have more collaborations with other state connections academy to have more of a regional network in place between schools. We could share ideas.*
>
> -Teacher

> *I don't feel like there's any staff member that feels left alone. The tech system and support network is helpful. There are many resources within Connexus®. Thank God for the search in the virtual library [on Connexus®]. I find the trainings are pretty efficient actually. They are considerate of your time and get to the specifics of what you need to know.*
>
> -Teacher

> *Maybe the whole network doesn't understand they have students enrolling with large credit deficiencies. I don't want a lot of other kids to miss out on this opportunity. The state wants to close NCA down and the state ignores students that won't graduate.*
>
> -Parent

APPENDIX D – MATH TIME TO TALK PILOT RESULTS

Pearson

Exploring the Impact of Small-group Synchronous Discourse Sessions in Online Math Learning

Jinnie Choi
Alyssa Walters

AERA 2018 Annual Meeting
April 2018, New York, NY

Problem: K-12 virtual school students have shown lower math performance

- Virtual schools serve a **highly mobile** student population (Gatti, 2018), and mobility has a **consistent and severe negative impact** on math performance (Rumberger, 2015). Indeed, studies have shown **low average state assessment scores in math** (Woodworth et al., 2015; Ahn, 2016)

However, research on how to support learning is lacking

- How can we **remediate the negative effect of high mobility** by having special interventions to help support math learning?
- Research shows **a lack of rigorous studies on the practices of successful school-level strategies** to improve learning outcomes of virtual school students (Choi et al., 2016).

Does math discourse matter for online math learning?

In our intervention, we increased opportunities to talk about math in online learning

- Fully-online learning environments provide **different experiences** of learning math than in traditional classrooms: **decrease in opportunities to talk about math**
- While research shows that **discourse promotes robust reasoning and deep understanding of complex concepts, studies have not used virtual school data** to examine how discourse works for improving math performance
- We analyzed empirical data to examine **if participation in synchronous discourse sessions matters for math performance** in an online learning environment

Research Questions

RQ1	Is there a relationship between **participation in math discourse** and **students' confidence, self-efficacy toward math and math mindset**?
RQ2	Is there a relationship between **participation in math discourse** and math **performance** in the course and on the state assessments?

Study Design and Participants

Participants

- 898 students in grades 3, 4 and 5
- 5 fully-online virtual elementary schools
- 2016-2017 school year (two semesters: A and B)

Study Design

- A retrospective study using online platform data
- Participation in the discourse sessions was **voluntary but strongly recommended** at the classroom and school levels
- Participation was tracked in terms of three variables
  - **Number of participated sessions** per each semester
  - **High vs. low participation**: yes if attended 6 or more sessions
  - **Semester participation pattern**: A only, B only, or A and B

Implementation of Discourse Sessions

Session Format and Implementation

- Synchronous, small-group, verbal and visual communication environment with 1:1 to 10:1 student-facilitator ratio
- Embedded in the math courses that are normally asynchronous with flexible schedules
- Sessions occurred once about every 7 lessons
  - The queue was open during the normal school hours in the weekdays: students accessed the sessions through a link to the queue in their course for each designated lessons
  - New math problems each week (easy to moderate difficulty)
- Students were given opportunities to participate from 9 to 11 discourse sessions per semester (depending on grade level and courses)

Implementation of Discourse Sessions

Session Facilitator Roles

- Each session was facilitated by one of eight math subject experts who received a degree in mathematics
- They received formal training on
  - presenting the problem,
  - guiding the students in the discussion to focus on the process and different ways of approaching the particular problem rather than arriving at the solution,
  - encouraging students to talk to one another about their thought processes, and
  - giving feedback that promotes growth mindset.

Implementation of Discourse Sessions

Desired Participant Actions

- The facilitators encouraged participants' actions such as
  - interactively communicating with each other about mathematical reasoning and problem-solving using screen sharing,
  - explaining and justifying,
  - listening carefully,
  - seeking understanding,
  - asking questions that clarify, and
  - comparing different approaches to the same problem

Methods

Dependent Variables

- Mindset (alpha=.40), confidence, and self-efficacy towards math (alpha=.45)
  - Interchangeably collected after every 2-3 sessions to see trends
- Math performance measures
  - Final course scores: scale of 0 to 100. Collected at the end of each semester for the current and previous school years.
  - State assessment results: 1 if advanced or proficient. 0 if basic proficiency or below basic proficiency. Collected at the end of the current school year.

Methods

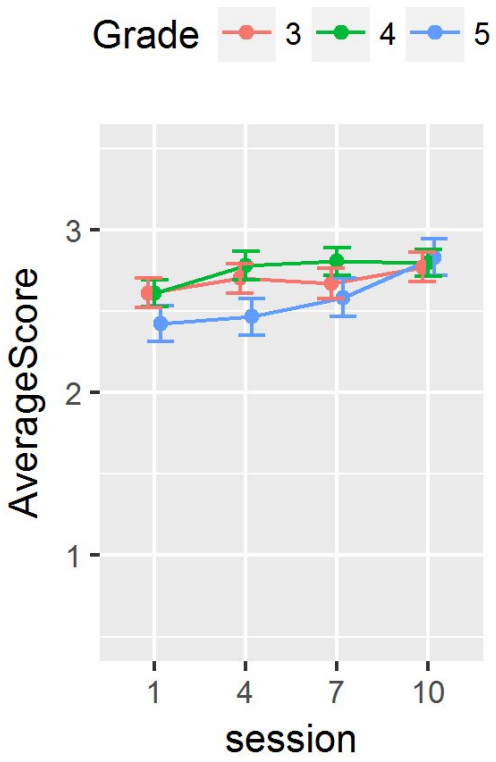
Independent Variables

- High vs. low participation: yes if at least 6 sessions in a semester
- Number of participated sessions in a semester
- Semester participation pattern: A only, B only, or A and B both
- Prior year final math course score: 0 to 100

Statistical Methods

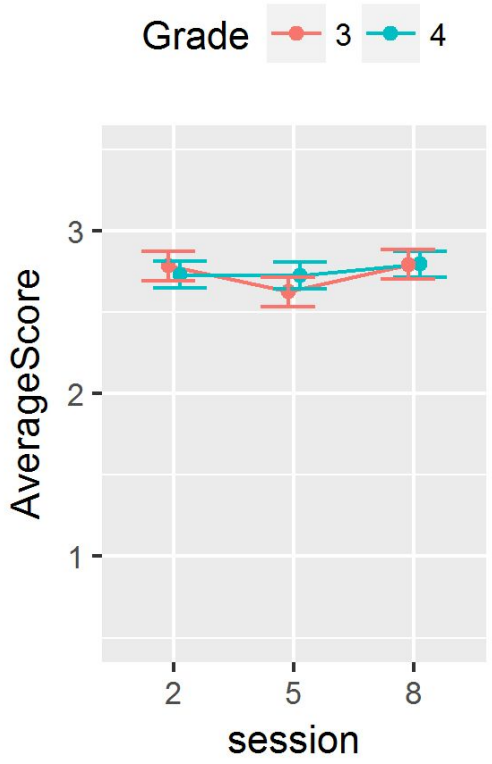
- RQ1. Confidence, Self-esteem, and Mindset: Changes Over Time
  - Paired t-tests between the session means
  - Only with the sample who answered every time the measures were administered
- RQ2. Effects on Math Performance
  - Generalized linear models
  - Unit of analysis: a student's record for a semester

Finding 1. Confidence, Self-esteem, and Mindset Did Not Change Significantly



<- Semester A (N=561) confidence and self-esteem showed a slightly increasing trend

Semester B (N=476)-> confidence and self-esteem slightly decreased then increased



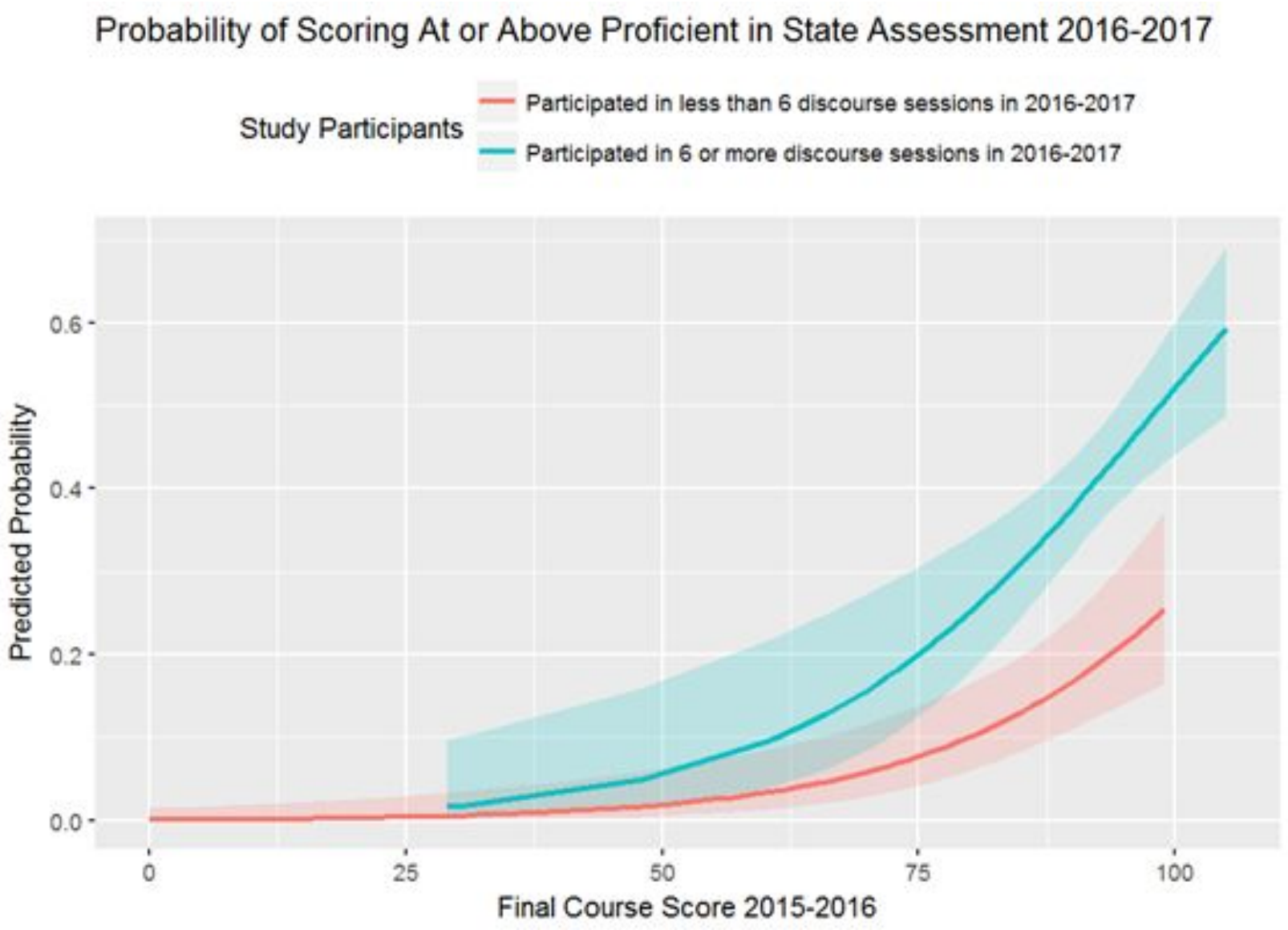
However, differences were either **not significant or practically very small**. **Mindset results showed similar** pattern, while at all sessions the average score showed **'growth' mindset** rather than 'fixed' mindset.

Finding 2. Participation in Discourse Showed Positive Effect on Math Performance

Model 1 (N=868) Y: Final Course Score	Model 2 (N=562) Y: State Assessment Result
High vs. low participation	High vs. low participation
Number of participated sessions	**Number of participated sessions**
(1.423 increase in score for an added session)	(19% increase in the odds of Proficient and above)
Semester participation pattern	Semester participation pattern
Prior year final course score	**Prior year final course score**
Semester B course (vs. A)	**Semester B course (vs. A)**
Locations	**Locations**
Grade	Grade

Bolded: the estimates were statistically significant at alpha = .05 level

In a Simpler Model, High Participants Had Twice the Odds of Scoring At or Above Proficient



Summary: Math Performance is Higher for Students who Participate in More Synchronous Discourse Sessions

- Fully-online K-12 virtual school students have shown **lower performance in math** possibly due to high mobility
- We analyzed empirical data to examine if participation in **synchronous discourse sessions** matters for online math learning.
- In 2016-2017 school year, we embedded synchronous discourse sessions in math courses at **5 fully-online virtual elementary schools**..
- Students who **participated in more discourse sessions had higher odds of scoring at or above Proficient level** in the state assessments.

Next Steps: What actually happened in the sessions?

- How was the implementation fidelity?
- The main finding was highly consistent with previous literature on math discourse, but our analysis did not tell us why students had higher outcomes. What elements of the activities within the sessions were really related to the outcomes?

Thank you!

Any questions or suggestions?

jinnie.choi@pearson.com

APPENDIX E – RTI AT-A-GLANCE FLOWCHART

RTI AT-A-GLANCE FLOWCHART