

# Intro to Continuous Improvement

CI 101



# INTRODUCTIONS

## Youth Initiative Institute Team

### FACILITATORS

- **Lisandra Gonzales**, Chief Operating Officer

## Check-In

- Name
- Organization
- On a scale of 1 - 5 (5 being you know a lot)... How much do you know about Continuous Improvement?
- What do you hope to gain from this session?

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in·sti·tute /'instə,t(y)oot/



**WELCOME**

# SESSION GOALS

- Understand the role ACYI plays
- **Understand what Continuous Improvement is... and what it is not**
- How the process can help improve outcomes
- **Understand a basic tool to get started**
- Learn ways to engage with ACYI and additional workshop opportunities

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in·sti·tute /'instə,t(y)oot/

**verb:** set in motion or establish (something);  
continuous learning to support our work on behalf of  
children and youth

# WHO WE ARE



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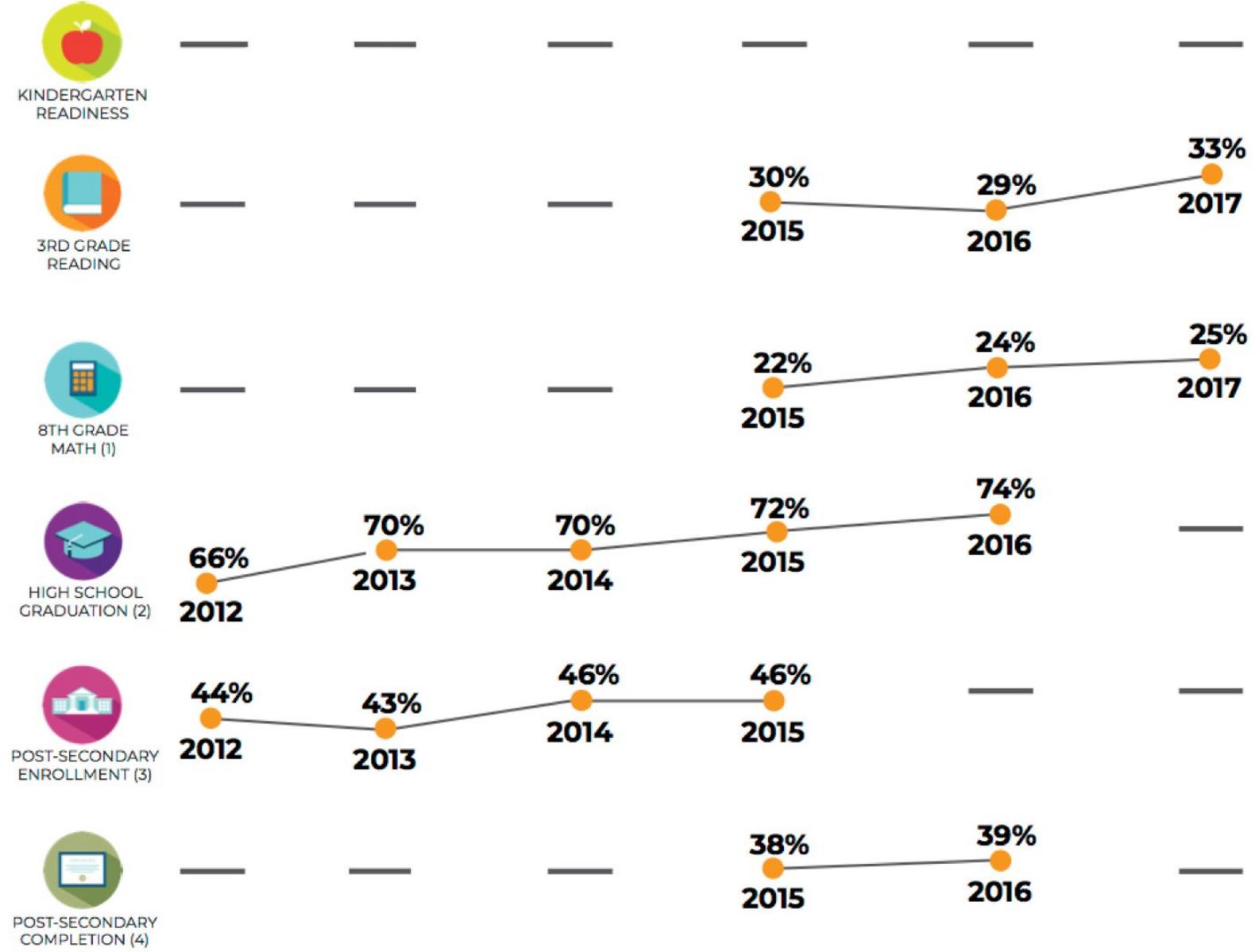
# A NATIONAL MOVEMENT

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# VITAL SIGNS



**GOAL: By 2025, meet or exceed state rates**

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**TBD**

**40%**  
(2016-17)

**29%**  
(2016-17)

**78.9%**  
(2016)

**56.5%**  
(2015)

**52.7%**  
(2016)





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**“Our job is not about helping kids beat the odds. It’s about changing the odds that have to be beaten.”**

**- R.T. Rybak**

# OUR END GAME

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60% of the Cradle to Career outcomes are maintained or improved AND gender, racial, and economic disparities are eliminated

# Our Pillars...

1

**Success for EVERY young person. Cradle to Career.**

2

**Together** we can do more/better on behalf of our children and youth.

3

And... using an **Outcomes Focused** framework is how we can do it.

# Our Pillars...

**Together** we can do more/better on behalf of children and youth. *in·sti·tute /'instə,t(y)oot/*



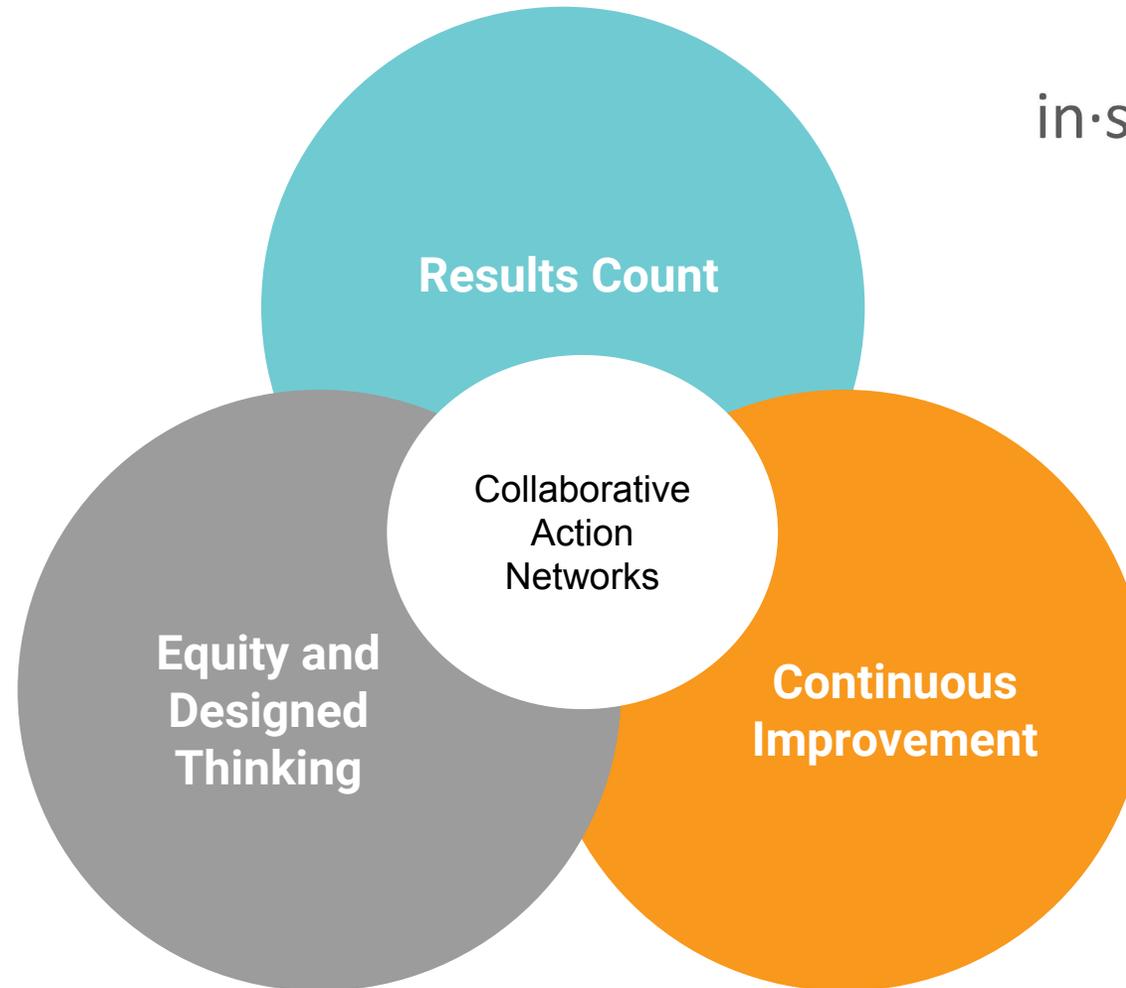
ACYI COLLABORATIVE ACTION NETWORK

Collaborative Action Networks or CANs are the "guts" of the Youth Initiative of Adams County.

Using the Cradle to Career Outcomes to guide their work, CANs focus on specific targets as a collective force, applying their efforts in a collaborative and constructive way using our Outcomes Focused Framework.

# Our Outcomes Focused Framework

**We have found that by using Continuous Improvement, Results Count, Equity and Design thinking tools and techniques, partnerships can create the clearest picture of what is currently happening in their community and implement strategies that yield results.**



# USED ACROSS MANY SECTORS

A.K.A...

- Lean
- Six-Sigma
- Model for Improvement
- Others...

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# WHAT CONTINUOUS IMPROVEMENT IS NOT



- Not a silver bullet
- A straightforward process to follow

# WHAT CONTINUOUS IMPROVEMENT IS



It's a way of thinking and approaching your work that is supported by various tools and techniques to help improve outcomes

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# WHAT IS CONTINUOUS IMPROVEMENT?

Above all else...

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## PARADIGM SHIFT

A change from  
one way of  
thinking to  
another.



# CHANGING ROLES

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Planner  
Traffic Officer  
Fire-Fighter  
Problem Solver



Coach  
Facilitator  
Resource Allocator  
Conductor



# TO US...

Continuous improvement is a journey, an **ongoing effort** to improve services and supports for children and families over time in order to improve a community level outcome.

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“There is something fundamentally amiss about building or rebuilding a system without consulting at any point those it is designed to serve.”

- Alison Cook-Sathe



Innovators  
Change Agents  
Pragmatists  
Skeptics  
Traditionalists

# CONTINUOUS IMPROVEMENT PROCESS



- What is the problem or area of opportunity you are trying to solve?
- Verify that it is a problem.



Using tools and techniques  
to help along the way

# CONTINUOUS IMPROVEMENT IMPACT



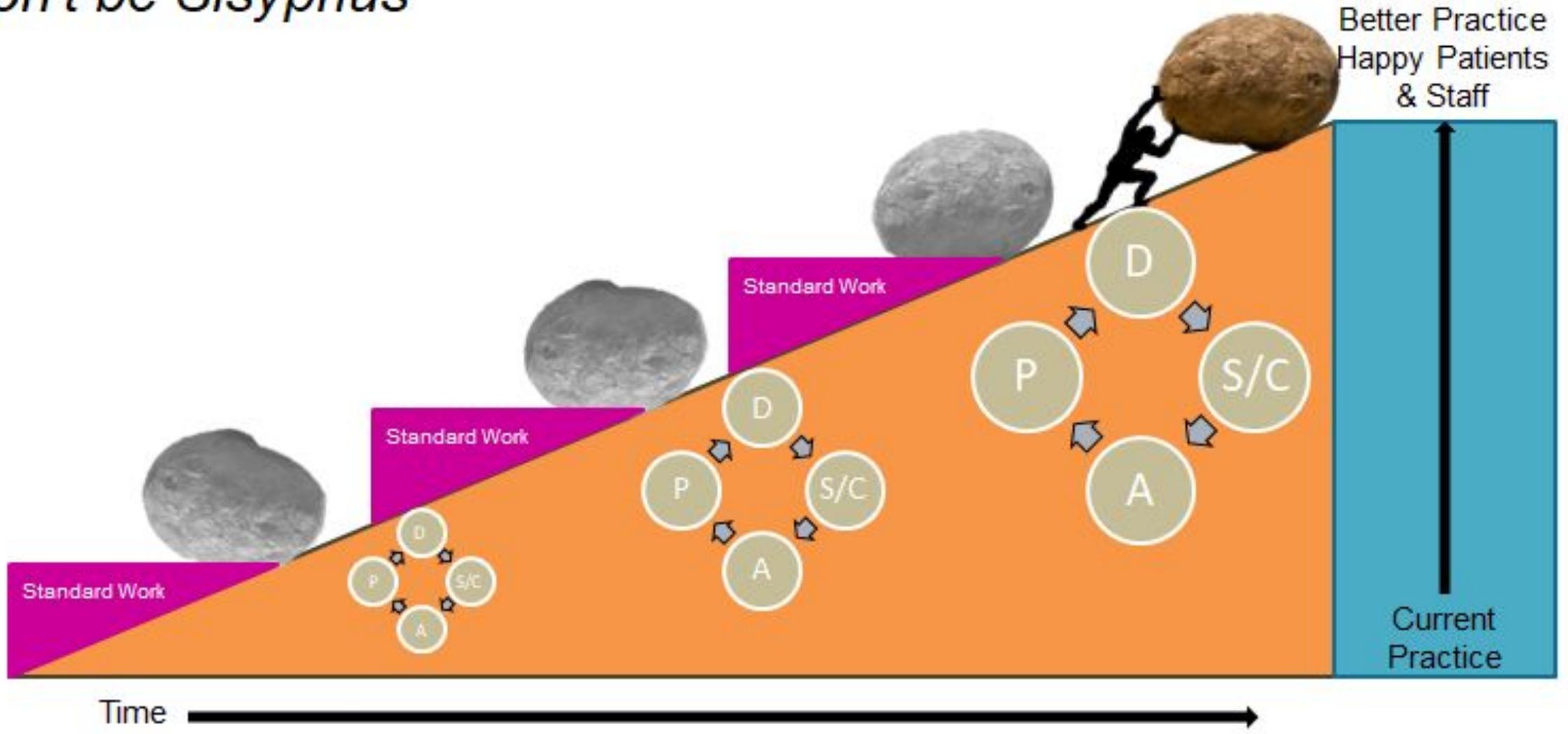
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## Ramp of Improvement

- Methodical (Process)
- Impactful (Results)
- Sustainable (Ongoing)

# Don't be Sisyphus



# CONTINUOUS IMPROVEMENT TOOLS

Many tools available to help with...

- **Determining the Problem:** Run charts, trend charts
- **Root Cause Analysis:** 5 Whys, fishbone diagram
- **Determining What is within your Sphere of Influence and Control:** PICK Chart
- **Determining Who Needs to be Involved:** Results at the Center
- **Metrics:** Leading and Lagging Indicators
- **Tracking Data:** Control Plans, Status Boards

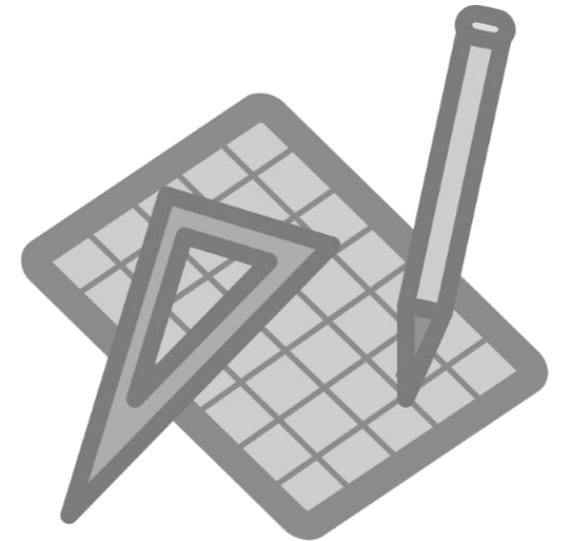


# A3: YOUR BLUE PRINT

- Named after the size of paper
- Designed to help us begin eating the elephant
- Meant to be a pencil to paper tool – not to be overthought or to spend too much time getting it perfect
- Summarizes the story of the work that you are doing to solve your problem
- If the problem you are trying to solve is too large for the paper, it might be too large of a problem to focus on
- Meant to help you get started and is a living document that is continually updated to show progress

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## A3 Reporting Tool

## PROJECT NAME

Result	Plan
What is the problem? Why is this a problem? What measurement are you using to know the problem? Does the data show this is actually a problem?	

Current Conditions/Baselines	Plan
Where are you now? What are the current conditions? What are the symptoms? What impact is it having? Who is involved in the work?	

Target(s)	Plan
Where do you want to be? What is the target you want to achieve? What is your goal for improvement? Consider both long-term and short-term targets.	

Factor Analysis (Story Behind the Baselines)	Plan
What is preventing you from getting there? What are the root causes? Where will you focus your work? What is within your sphere of influence and control to accomplish?	

Interventions/Strategies	Do
What will you work on? How will you know it is working? Be specific about the steps you will take, and identify what specific data you will collect to measure the impact of your intervention.	

Status	Study
What happened? What were your results? Collect data quickly to test your theory about the problem. Use your data to Adapt, Adopt, or Abandon.	

Learning	Study
Did everything go according to plan? What did you learn?	

Action Commitments	Act
Based on what you learned, what will you do next?	

### A3 Reporting Tool

### PROJECT NAME

**Result** **Plan**

Community Outcome: Kindergarten Readiness  
Result Statement: All Kindergarten students at this school will meet or exceed the attendance standard  
Indicator: Attendance

**Current Conditions/Baselines** **Plan**

Kindergarten chronic absenteeism has increased by 10% over 5 years, current baseline is 24.6%

**Target(s)** **Plan**

The goal is for the average number of days kindergarten students at this school are present in the classroom to go from 18.5 to 25

**Factor Analysis (Story Behind the Baselines)** **Plan**

Reasons for Issue				
Problem	Count	Percent of Total	Cumulative Percent	Horizontal Line Value
Kid overslept	55	44.72%	44.72%	
Bus ran late	30	24.39%	69.11%	
No car	19	15.45%	84.55%	
Parent work	10	8.13%	92.68%	
Sickness	7	5.69%	98.37%	
Plague of locusts	2	1.63%	100.00%	
<b>Total</b>	<b>123</b>	<b>100.00%</b>	<b>100.00%</b>	

**Interventions/Strategies** **Do**

One classroom, one teacher – incentivize students for being at school on time through recess

**Status** **Study**

PDSA Cycle 1 Data

Baseline average: 18.5 days  
 Average after Cycle 1: 20.2 days  
 Average after Cycle 2: 26.4 days

Maria: 15 / 30	Heather: 23 / 25	Manny: 15 / 17
Brice: 18 / 20	Tony: 26 / 27	Rozi: 26 / 29
Ken: 20 / 20	Amy: 27 / 28	Sam: 25 / 27
Katie: 16 / 17	Katlyn: 16 / 17	Caroline: 16 / 19
Jenevieve: 15 / 14	Emily: 15 / 14	Rich: 9 / 10
Kirsten: 12 / 13	Simine: 12 / 13	Becca: 20 / 20
Tom: 6 / 8	Pam: 29 / 30	Dede: 27 / 26
Aisha: 11 / 17	Serena: 30 / 30	Ryan: 16 / 17
Becky: 19 / 20	Julia: 24 / 22	Borzou: 11 / 15

Baseline average: 18.5 days  
Average after Cycle 1: 20.2 days

**Learning** **Study**

How much extra recess time worked best?

**Action Commitments** **Act**

Adopt, abandon, or adapt?

**A3 Reporting Tool**

**PROJECT NAME**

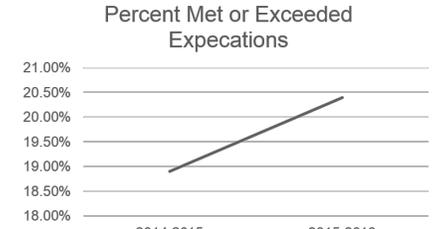
**Result** **Plan**

Community Outcome: Middle Grade Math  
Result Statement: All 8<sup>th</sup> Grade Students at this school will meet/exceed state average in math.  
Indicator: % of 8th grade students who meet/exceed standard



**Current Conditions/Baselines** **Plan**

Proficiency on the 8th grade math PARCC test has increased from 18.9% to 20.4% over 2 years, current baseline is 20.4%, but overall % of students proficient is still low.



Year	Percent
2014-2015	18.9%
2015-2016	20.4%



**Target(s)** **Plan**

Increase Proficiency on 8<sup>th</sup> Grade Math PARCC Scores at ABC Middle School from 20.4% to 25%



**Factor Analysis (Story Behind the Baselines)** **Plan**

*Outcome: All 8th grade students at ABC Middle School will meet or exceed expectations on the 8<sup>th</sup> grade math test*  
*Target population: 8th grade student who are eligible for Free or Reduced Lunch and students with Individualized Education Plans*



Poor nutrition/Lack of breakfast/lunch.	Lack of exposure to academic vocabulary at home.	Students don't feel connected to school/teacher/peers.
Lack of Peer Modeling in low leveled classes	Lack of homework support at home	We don't know WHO our FRL kids are to address needs.
Reteaching doesn't happen consistently during school day.	Parents don't know how to teach "new math".	Parental attitudes towards math can be negative.
Lack of access to technology at home.		

**Interventions/Strategies** **Do**

Student engagement and ownership over their work. Students in one classroom will chart their goals (visually) in the classroom and measure their performance on a weekly basis.

Students proficiency on classroom assessments will be measured weekly.



**Status** **Study**

Baseline average: 7 out of 29 students proficient on week 1  
 Week 2: 10 students proficient  
 Week 3: 9 students proficient  
 Week 4: 10 students proficient  
 Week 5: 14 students proficient



**Learning** **Study**

Students started to help each other in week 4 and 5.



**Action Commitments** **Act**

Adopt, abandon, or adapt?





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**“It is not enough  
to just do your  
best or work hard;  
you must know  
what to work on.”**

**- Dr. W. Deming**

They brought in a pigeon expert.



He determined  
that the birds  
were there to  
eat the  
spiders.

# PROOF IN CONCEPT



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8th Grade Math

# Digging Into Data

Performance Challenge: Students who are eligible for free-reduced lunch are not making commensurate growth with other students in ELA and Math.

## FRL MAP Math % Meeting Growth Target

	2016	2017
FRL	66.9	66.4
Non-FRL	77.6	70.9

Performance Challenge: Students with disabilities are not making commensurate growth with other students in ELA and Math. The growth of students with disabilities has not been consistent over the last three years.

## IEP MAP Math % Meeting Growth Target

	2016	2017
IEP	60.3	60
Non-IEP	77.5	71.1

Performance Challenge: Students who are eligible for free-reduced lunch are not making commensurate growth with other students in ELA and Math.

## FRL PARCC Math Median Growth Percentile

	2016	2017	2017 State
FRL	59	57.5	52
Non-FRL	64	63	59

Performance Challenge: Students with disabilities are not making commensurate growth with other students in ELA and Math. The growth of students with disabilities has not been consistent over the last three years.

## IEP PARCC Math Median Growth Percentile

	2016	2017	2017 State
IEP	42	50	47
Non-IEP	65	63	57

# Root Cause Analysis

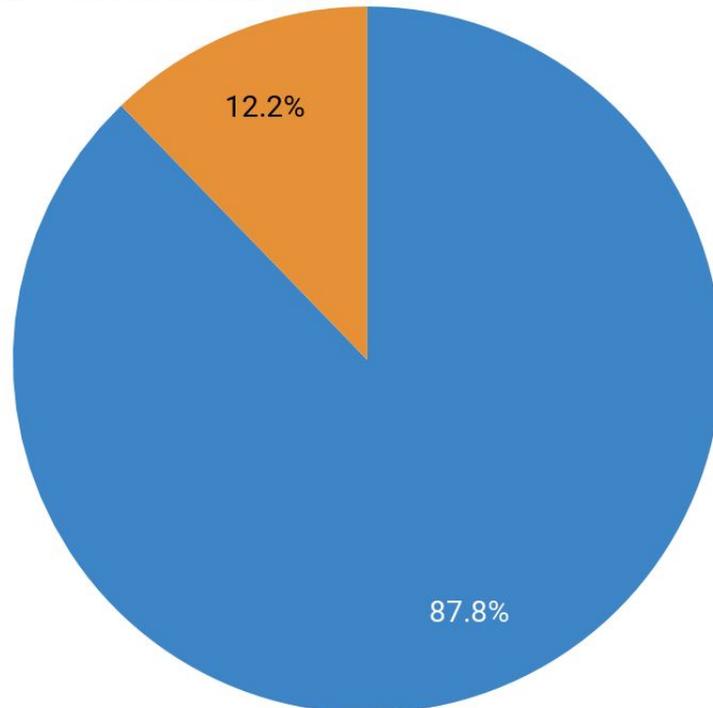
Students don't have access to someone who can help them with math outside of the normal school day...



# Step Two: Invite Targeted Students

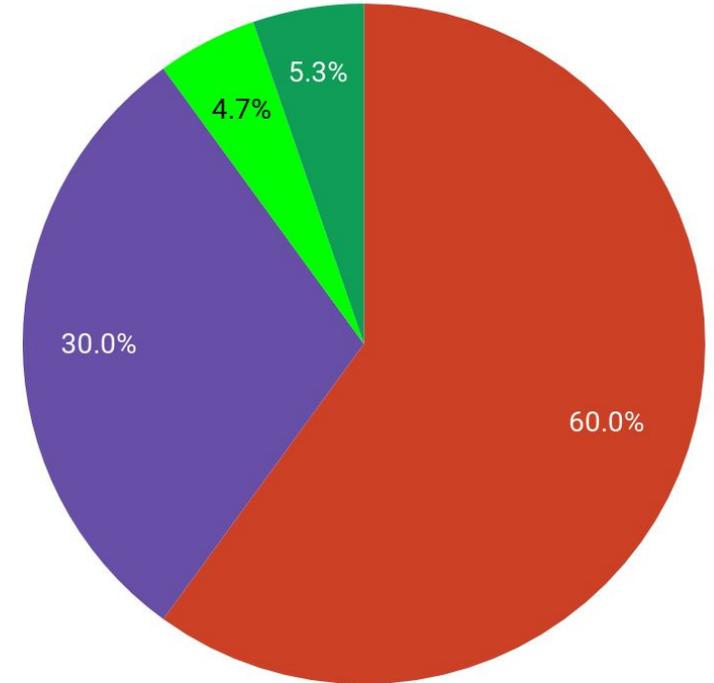
Rocky Top Middle School Student Enrollment

- General Math Classes
- "Low" Math Classes



"Low" Math Class Tutoring Attendance

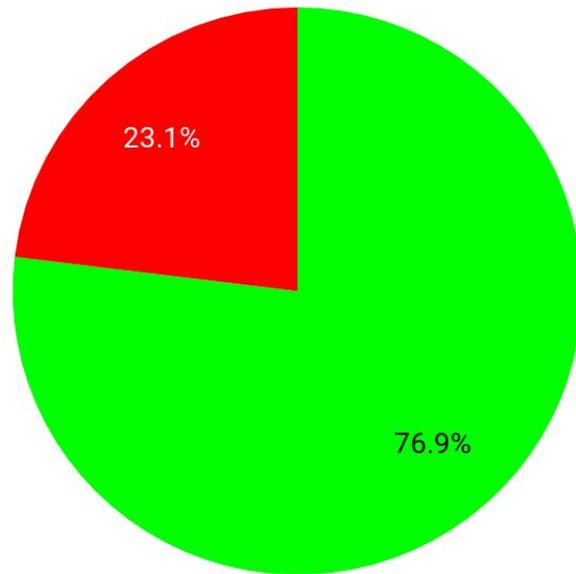
- Did not attend any Tutoring Sessions
- Attended less than 1/3 of Tutoring Sessions
- Attended 1/3 to 1/2 of Tutoring Sessions
- Attended more than 1/2 of Tutoring Sessions



# Step Three: Measure Growth of Targeted Students

**Growth of Students Who Attended 1/3 or More Tutoring Sessions based on Winter 2018 MAP Scores**

- Closing the Gap
- No Growth or Decrease



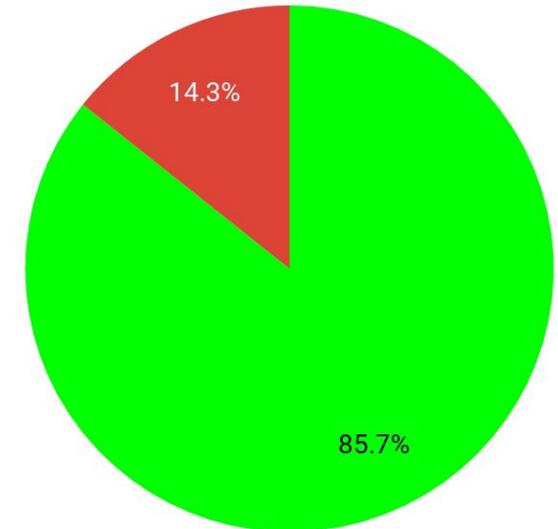
- 74% of 6th & 7th graders did not meet grade level in the fall
- 59% of 6th & 7th graders did not meet grade level in the winter ★
- 6th grade students who did not meet grade level in the fall were on average 5.2% below grade level
- 6th grade students who did not meet grade level in the winter were on average 1.9% below grade level. ★
- Every single 6th grader improved their score. ★
- 7th grade students who did not meet grade level in the fall were on average 4.7% below grade level.
- 7th grade students who did not meet grade level in the winter were 3.5% below grade level. ★

# Step Three: Measure Growth of Targeted Students

- 92% of 6th & 7th graders did not meet grade level in the fall
- 62% of 6th & 7th graders did not meet grade level in the winter ★
- 6th grade students who did not meet grade level in the fall were on average 5.6% below grade level
- 6th grade students who did not meet grade level in the winter were on average 4.1% below grade level. ★
- Every single 6th grader improved their score. ★
- 7th grade students who did not meet grade level in the fall were on average 4.1% below grade level.
- 7th grade students who did not meet grade level in the winter were 4.6% below grade level. ★

**Growth of Students Who Attended 1/2 or More Tutoring Sessions based on Winter 2018 MAP Scores**

- Closing the Gap
- No Growth or Decrease



# Also, a Tutoring Program Was Improved!

## 2016/2017

- Tutoring offered one day a week after school
- NHS students tutored middle school students
- About of 5-7 students consistently attended
- No quantitative data collected

## 2017/2018

- Tutoring offered one day a week after school
- Guest Teachers become familiar with content students are learning prior to tutoring session
- Guest Teachers provide structure to tutoring sessions
- Guest Teachers provide guidance to NHS tutors in working with middle school students.
- Averaging 37 students at each tutoring session
- Attendance, Growth and Achievement Data Collected

# Rocky Top Tutoring

77% of students who regularly attend tutoring are closing the gap.\*

40% of students enrolled in "low" math classes have attended tutoring.

14 hours of math tutoring have been offered outside of the normal school day.

Keep calm and do the math



84% of students enrolled in "low" math classes who regularly attend tutoring are closing the gap.\*

208 individual students have attended after school tutoring between August and December 2017.

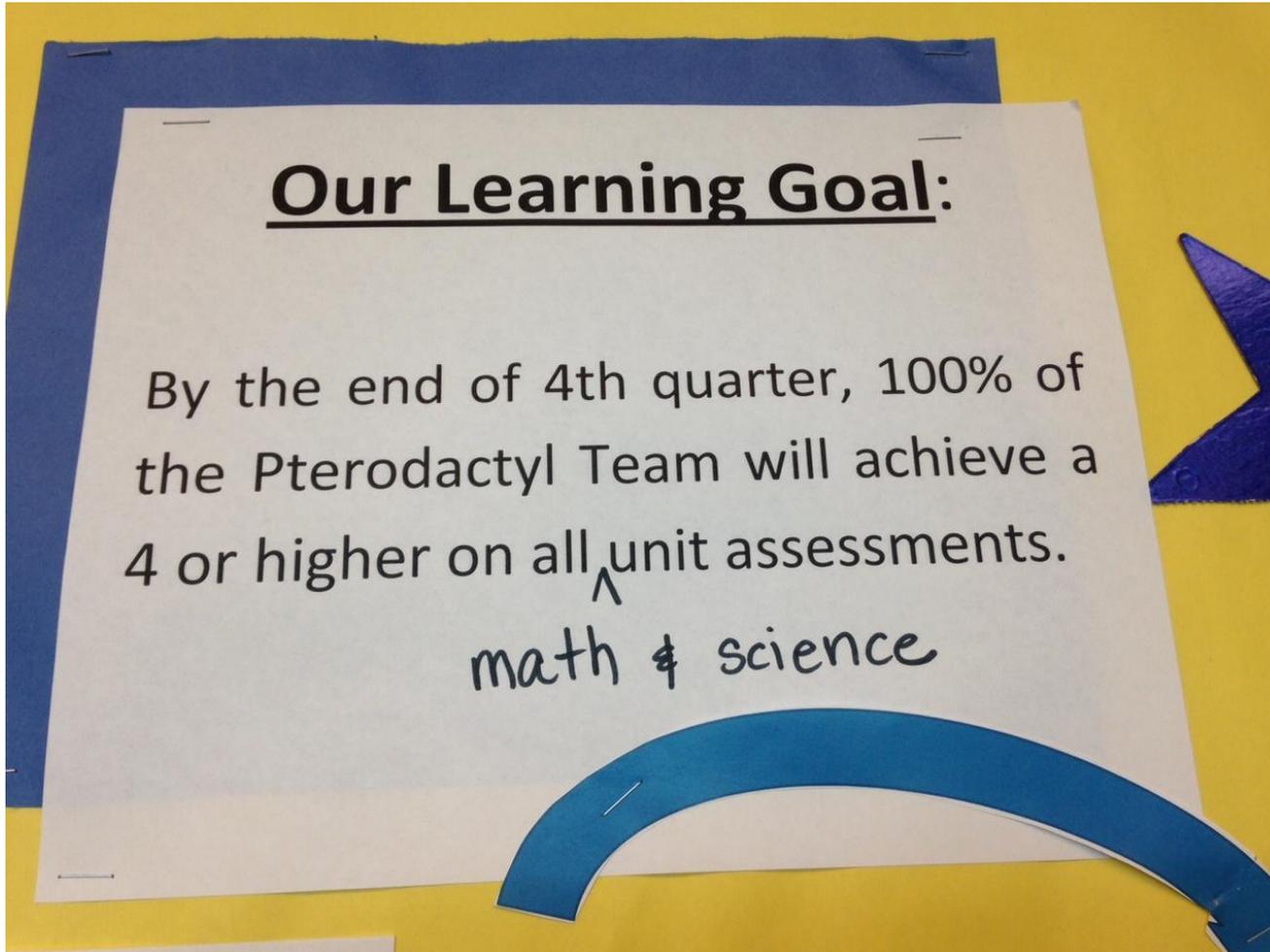
*\*Based on Winter 2018 6th & 7th grade MAP scores*

# Otho E Stuart Middle School



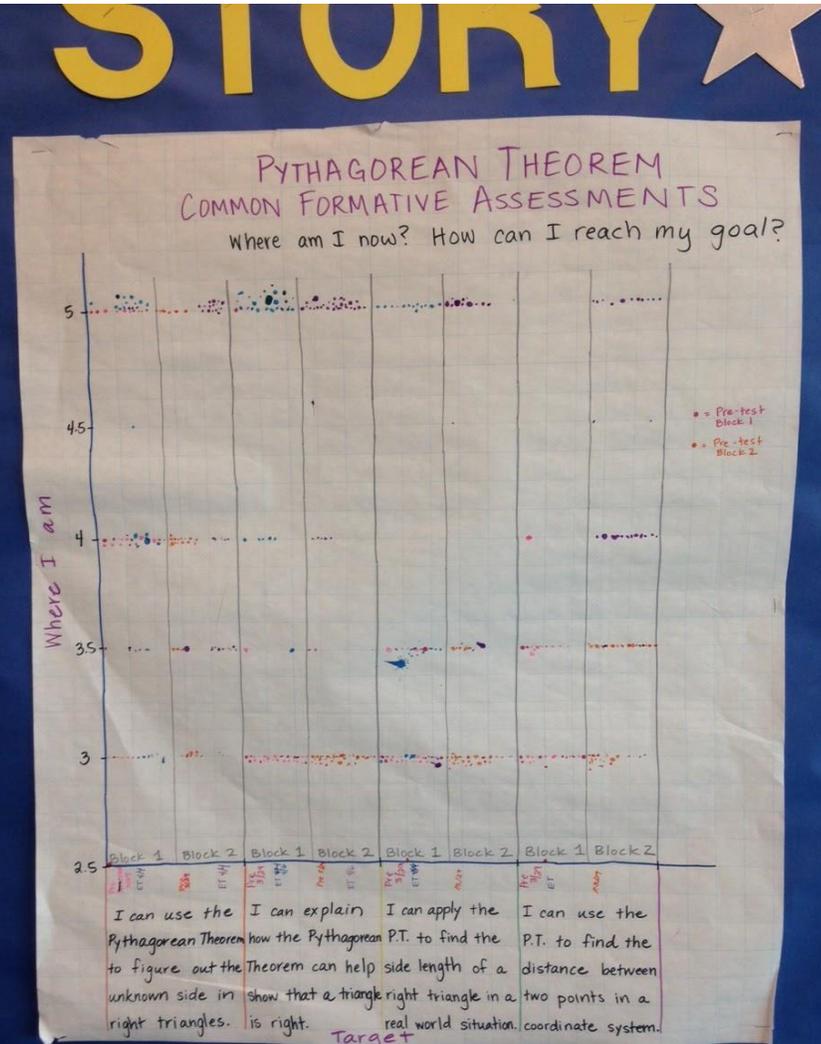
8th Grade Math

# Continuous Improvement in Action



- All working towards the same goal
- Students share ownership of class success
- Accountability for all

# Continuous Improvement in Action

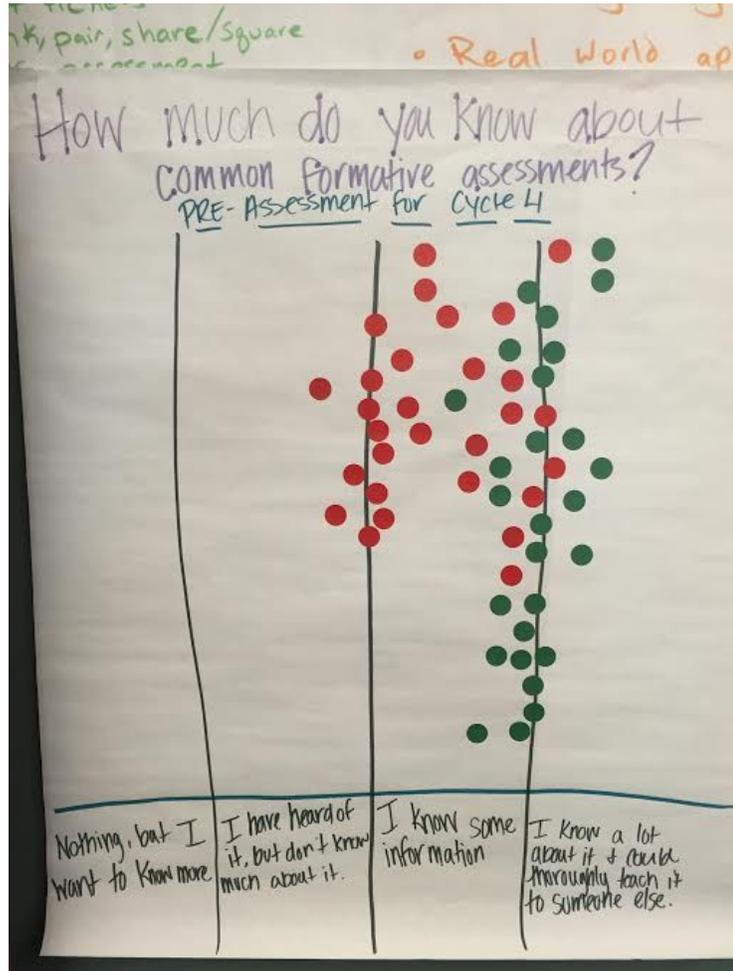


- Keeps data at the forefront of our minds
- Reminds us of our purpose and our goal
- Shared ownership

# Are these CI strategies having an impact?

Quarter	Unit Title	Percent of students scoring at grade level or higher				
<b>Quarter 1</b>	Exponents and Scientific Notation	Chk 1	Chk 2	Chk 3	Chk 4	Unit test
		68	45	55	34	37
<b>Quarter 2</b>	Linear Relationships	Chk 1	Chk 2	Chk 3	Chk 4	Unit test
		76	53	42	45	50
<b>Quarter 3</b>	Solving Systems of Equations	Chk 1	Chk 2	Chk 3	Chk 4	Unit test
		39	76	55	45	39
Began continuous improvement strategies at the beginning of 4 <sup>th</sup> quarter						
<b>Quarter 4</b>	Pythagorean Theorem	Chk 1	Chk 2	Chk 3	Chk 4	Unit test
		★ 100	★ 97	★ 74	★ 74	★ 74

# Data in Professional Development



## PLC Topics

- Progress Monitoring
- Self-Assessment
- Feedback
- Common Formative Assessments

## Cohort

- Workshop Model

## Learning Log

- This is all work that aligns towards our school wide goals and can be used for your learning log.

## Stuart Middle School improved on state tests last year:

- The school's overall scores, based on student growth and achievement:
  - 58.3% in 2017
  - Up from 49.2% in 2016
- Colorado School Performance Standards:
  - 'Needed Improvement' category in 2016
  - Improved test scores moved them into "performance category" — meaning that the school meets or exceeds statewide attainment on performance indicators.
- The improvement was noticeable in eighth-grade math:
  - 23% of students in 2017 met or exceeded expectations on state tests
  - Up from 8% in 2016

# INTERESTED?

Is there an opportunity  
for improvement in  
your space?



# NEXT STEPS YOU CAN TAKE

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# A3

1. What is the problem you are trying to solve?  
What are you trying to improve?
2. Verify and understand the problem
3. Do a root cause
4. What is within your sphere of influence and control to do about it
5. Determine HOW you will MEASURE or tell if what you do is working in real time
6. STUDY and ACT, STUDY and ACT



# UPCOMING OFFERINGS

## 2018 LEANing In Workshop Dates

- **April 26**
- June 6
- September 13
- November 8

## ADDITIONAL OFFERINGS

### The Adams County Student Survey & YOUth

- February 14 2:30-4:30pm
- February 21 2:30-4:30pm

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# OUR STAFF HELPS WITH THE FOLLOWING

Supporting an unprecedented coalition of stakeholders who have agreed to work together to benefit students throughout the community, from cradle to career.

- Technical Support
  - Collective Impact
  - Continuous Improvement
  - Data Coaching
  - Resource & Policy Alignment
- Project Management
- Adams County Student Survey

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QUESTIONS?

Together We CAN.

ACYI.org

Thank You!