

Introduction to Improvement Science

Lessons Learned about Engaging in Continuous Improvement from a Research-Practice Partnership

Inaugural Summit on Improvement Science

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“The problem-solving work of innovation requires access to ‘sticky’ information regarding user needs and the context of use . . . we need design which explicitly aims to function in the hands of diverse individuals working in highly varied circumstances.”

Bryk et al, 2011

Learn from schools that beat the odds

Inform, Inspire, & Improve

SEARCH

NYKids mission is to:

- **Inform educators** and others about school performance in comparison to other schools in the state
- **Inspire educators** through case studies and other reports of promising practices in odds-beating schools
- **Improve schools** through professional development in continuous improvement processes (COMPASS-AIM)

<https://ny-kids.org/>

Six Principles

Be problem-focused and user-centered

“What specifically is the problem we are trying to solve?”

“How do we tap wisdom of others and accomplish together?”

Organize as networks

Attend to variability

“How and where do we start small, learn fast, and improve quickly?”

6

CORE PRINCIPLES OF IMPROVEMENT

“What works, for whom and under what set of conditions?”

Learn through disciplined inquiry

See the system

“How do we know if a change results in improvement?”

Embrace measurement

“How do local conditions shape our work?”

Not All Problems and Solutions Are Created Equal

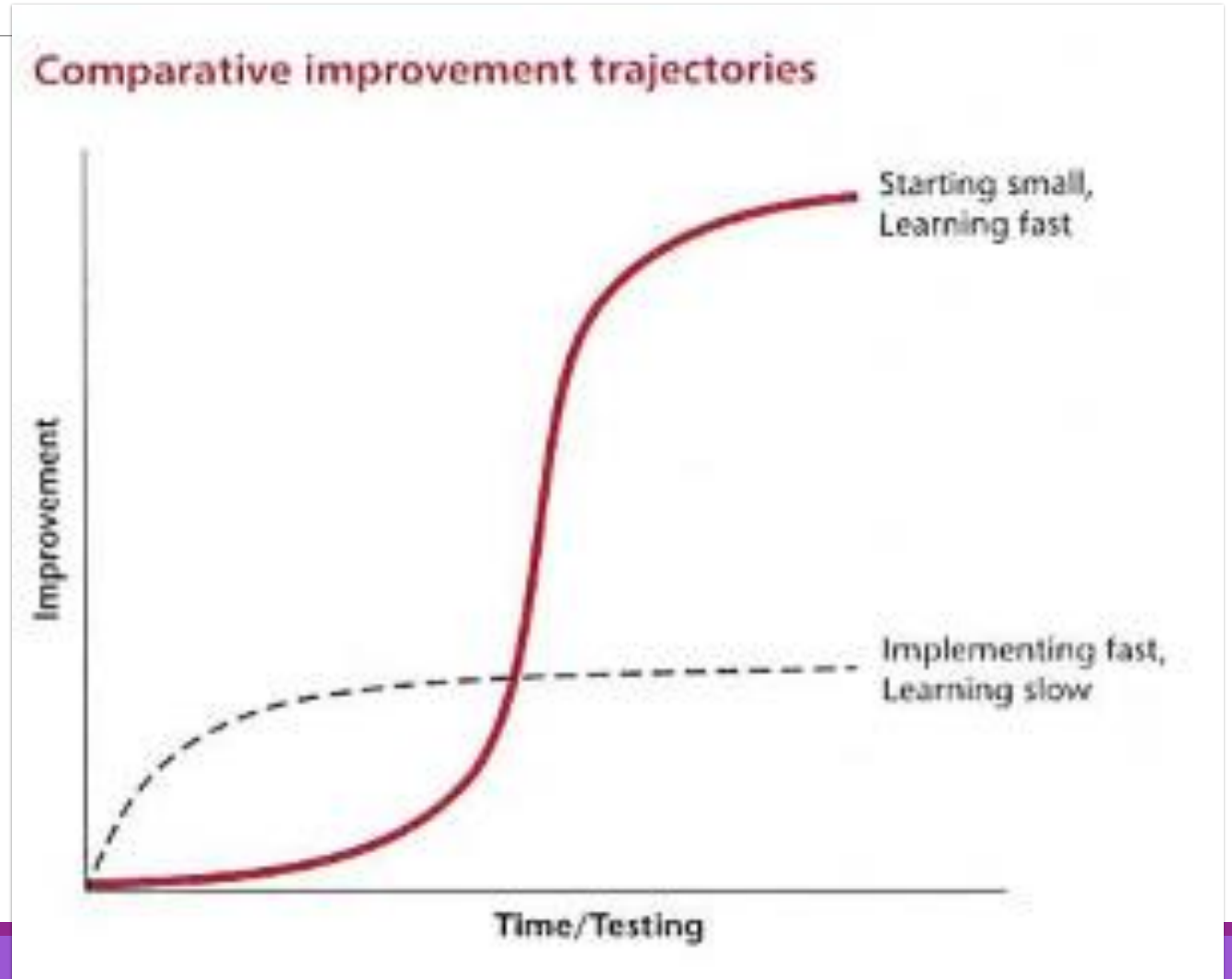
Consider your options...

a. Implement fast – learn slow

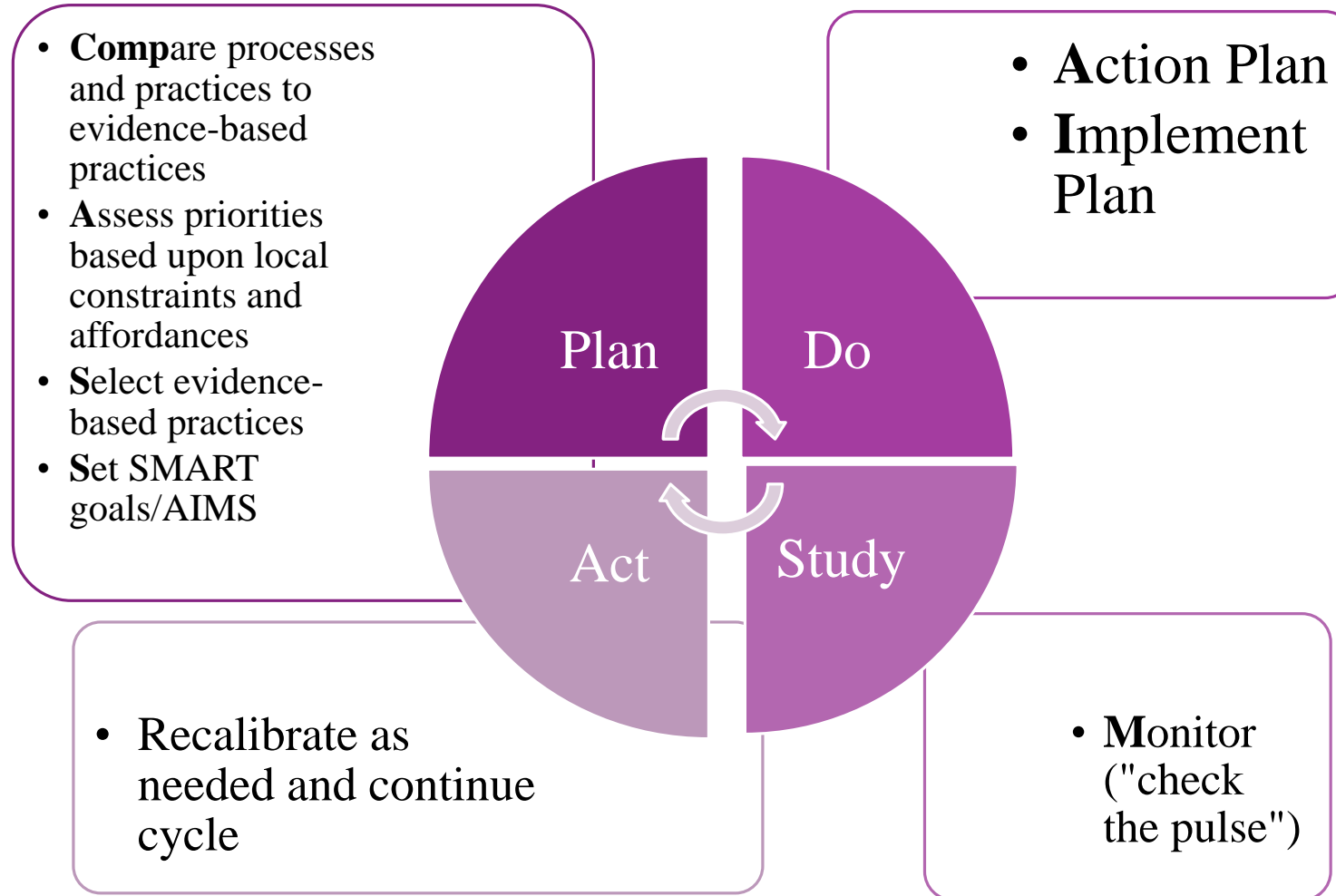
Or

b. Start small – learn fast

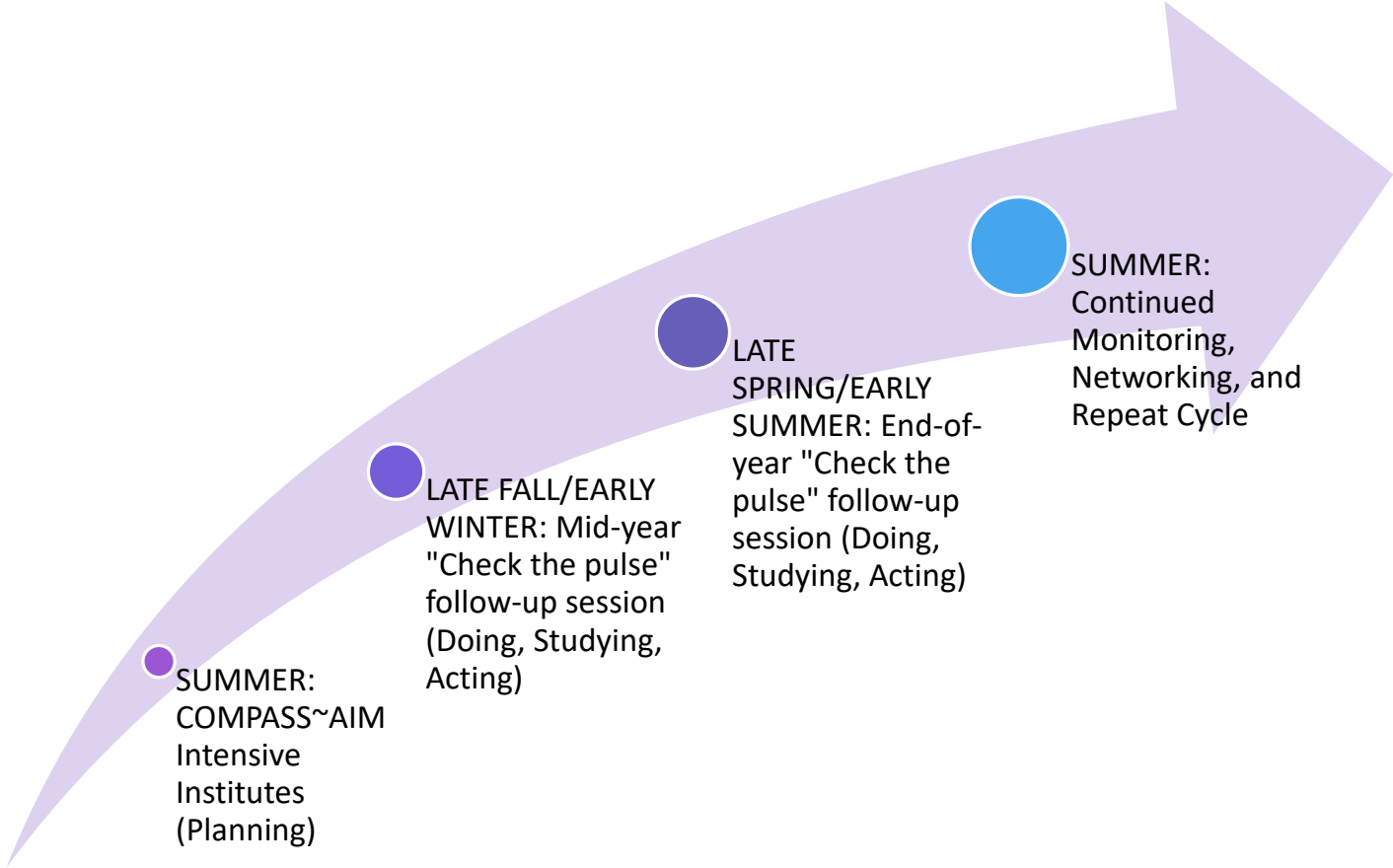
(See Bryk et al, Harvard Ed Letter, 2015)



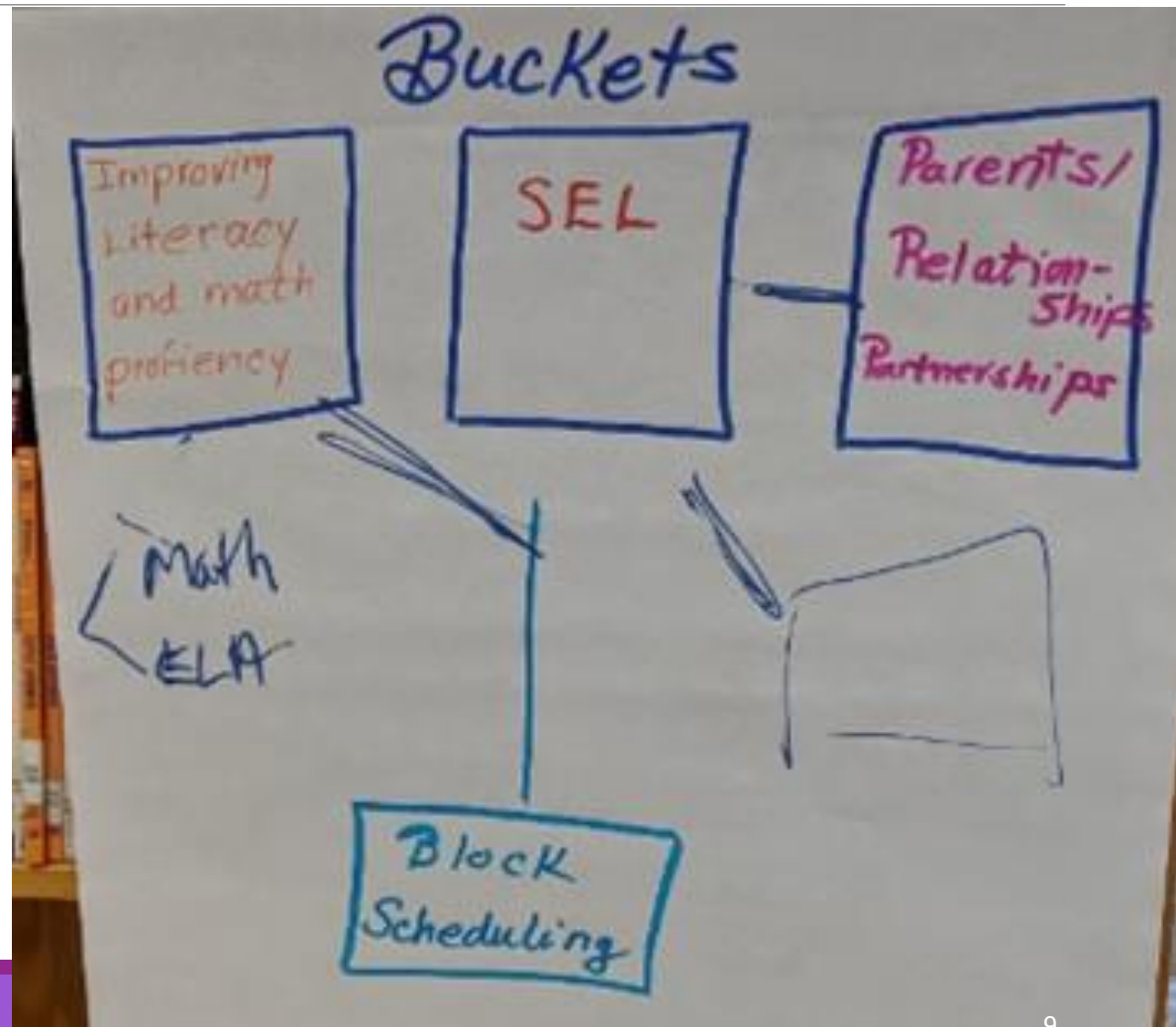
NYKids COMPASS Process



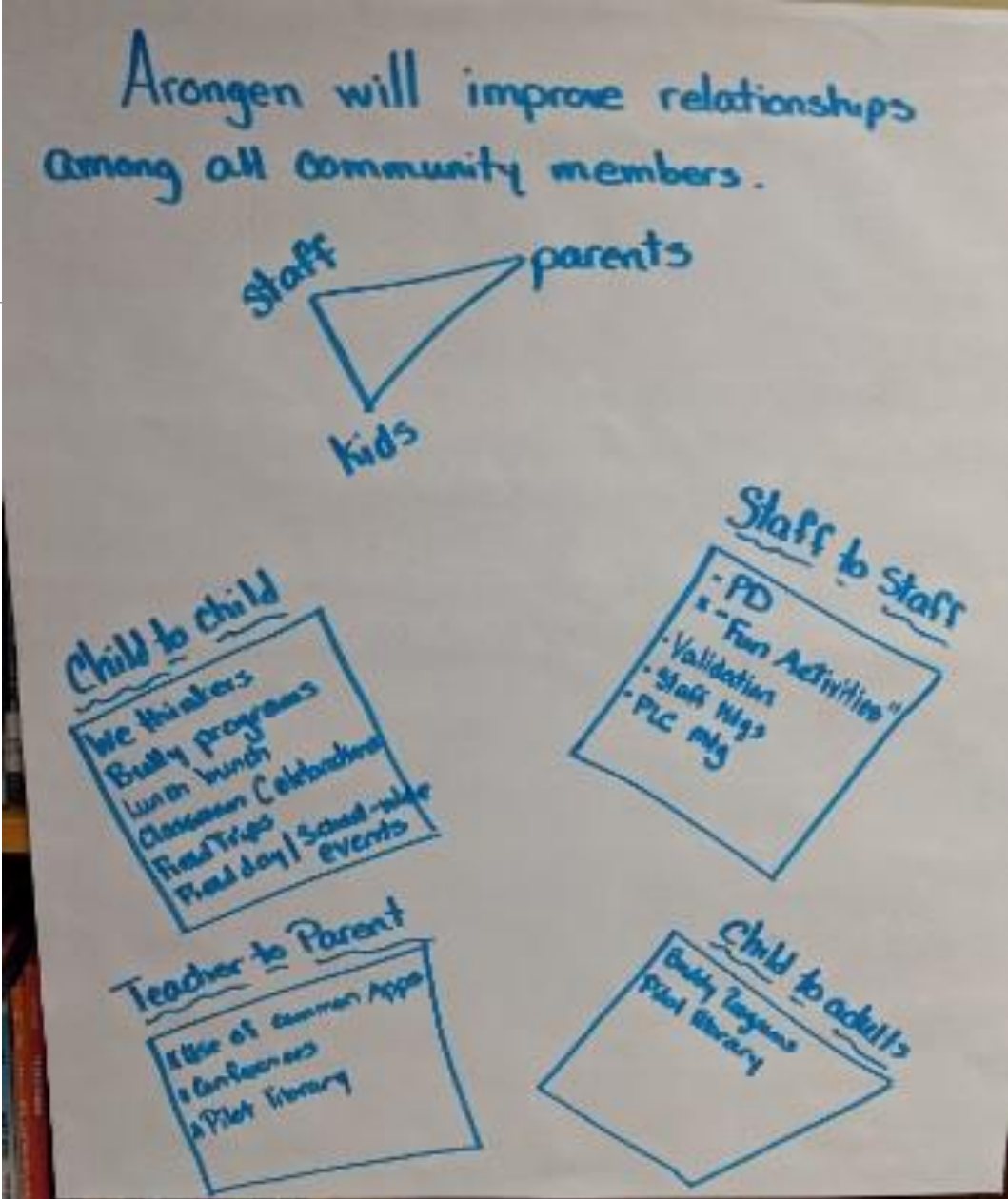
How COMPASS works



Problem-focused and User-Centered



Attend to Variability



See the System



Each and every Arroyo child will demonstrate targeted growth in Math on indicated measures.

Action steps

- Math Block - look at exemplar math block structures - workshop model, delivery of instruction
- Engage/Analyze data
 - ↳ Go Math chapter tests?
 - ↳ Quarterly assessments
 - ↳ eDoctrina reports
- Interventions
 - ↳ compile/organize interventions + retack resources based on skill
 - ↳ Standards - progress monitoring
- PD - Go Math, eDoctrina, any topic based on students needs as seen on data.

Embrace Measurement



By the end of **18-19** school year, **Arongen faculty will close student performance gaps as measured by individual growth in math and ELA literacy measures.**

Establish Growth Measures
K, 1, 2, 3, 4, 5

Literacy Team focus: Text with practices

Meeting Relations with ENL Sped

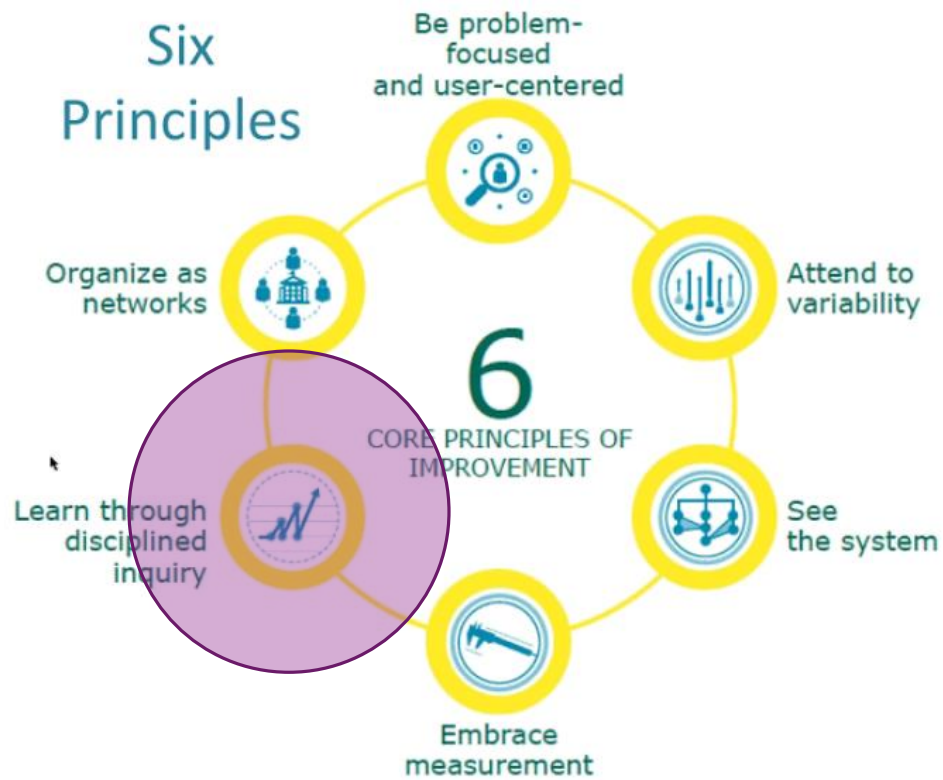
Data analysis to drill down to individual students with individual assessments data (at GLM's, Qrtly Meetings) - eDoctrina

IC offers ongoing classroom support

Reform IST process ^D

Student Support Services meetings Qrtly
→ Program Review ^D

Learn Through Disciplined Inquiry



Improvement Review: Check the Pulse Summer Meeting

Objective

- Summarize your team/organization's current progress on your improvement work

Section	Guiding Questions
<i>The big picture</i>	
Aim & Motivation	What are the goals of your improvement efforts?
<i>Focus and learning of the current phase</i>	
Current Performance	What is the current status on your improvement efforts?
Current Focus	Where did you want to be by the end of the year? Where have you been focusing your energy—what activities have you been engaged in?
Key Learnings	What progress have you made so far? What have been your most significant learnings? - (Use evidence to support your learnings: Share artifacts if available e.g. data displays, meeting minutes, staff meeting agendas, etc.)
<i>Going forward</i>	
What's next?	Where are you planning to go next?
Questions	What are two questions you have about your action plan (can be challenges you're facing, places where you need more information)?

Organize in Networks



The Odds-Beating High Schools

<p>Alfred-Almond Junior-Senior HS, Alfred-Almond Central School District</p>	<p>Crown Point Central School, Crown Point Central School District</p>	<p>Freeport HS, Freeport Union Free School District</p>	<p>Malverne Senior HS, Malverne Union Free School District</p>
<p>Maple Grove Junior-Senior HS, Bemus Point Central School District</p>	<p>Port Chester Senior HS, Port Chester-Rye Unified School District</p>	<p>Sherburne-Earlville Senior HS, Sherburne-Earlville Central School District</p>	

This cross-case analysis builds on the case reports for each of the schools in our sample. These case reports are available at www.albany.edu/nykids as well as ny-kids.org, and highlights from them appear throughout this report. Introductory details about our sample selection and study methods can be found on page 32. A separate methods and procedures report provides more detail, and it is available on our websites.

Thank you

Related research:

Wilcox, K.C., Lawson, H.A., & Angelis, J.I. with Durand, F., Schiller, K, Gregory, K., & Zuckerman, S* (2017). *Innovation in odds-beating schools: Exemplars of getting better at getting better*. Lanham, MD: Rowman & Littlefield.

Wilcox, K.C., Lawson, H.A., & Angelis, J. (2017). **COMPASS-AIM: A university/P-12 organizational intervention for continuous improvement**. *Peabody Journal of Education*. doi: 10.1080/0161956x.2017.1368654

Bryk, A.S., Gomez, L., Grunow, A. & LeMahieu, P. (2015). *Learning to improve: How America's schools can get better at getting better*. Cambridge, MA: Harvard Education Publishing.

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