



**Department of
Education &
Workforce**

BOOSTING OST IMPACT: USING IMPROVEMENT SCIENCE TO ADDRESS PROBLEMS IN YOUR PROGRAMS

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Office of School and District Improvement (OSDI)

Unlock the Magic:
Ohio's Out-of-School Time Conference
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WELCOME AND INTRODUCTIONS

Take 3 minutes to quickly at your table say who you are, the name of your organization, and where your organization is located.

OBJECTIVES



Participants will learn about and apply Improvement Science (IS) concepts and tools (rapid problem-solving, root cause analysis, data collection/analysis, etc.) within a Plan-Do-Study-Act (PSDA) cycle to formulate solutions within OST programs.



Participants will evaluate IS interventions using a case study from DEW initiatives and OST-centered research.



Participants will analyze and evaluate the effectiveness of IS tools through collaborate feedback activities to demonstrate practical application to enhance OST HS programming.

PROBLEM-SOLVING: THE OLD WAY



ANALYZE THE PROBLEM



CONSIDER SOLUTIONS



RUN WITH THE ANSWER

PROBLEM-SOLVING: THE NEW WAY

What is the Problem?

Is there a different way to solve the problem?

How do we keep moving forward?

Have inside eyes and outside eyes-review the problem

ACTIVITY: PROBLEM-SOLVING IN OST PROGRAMS

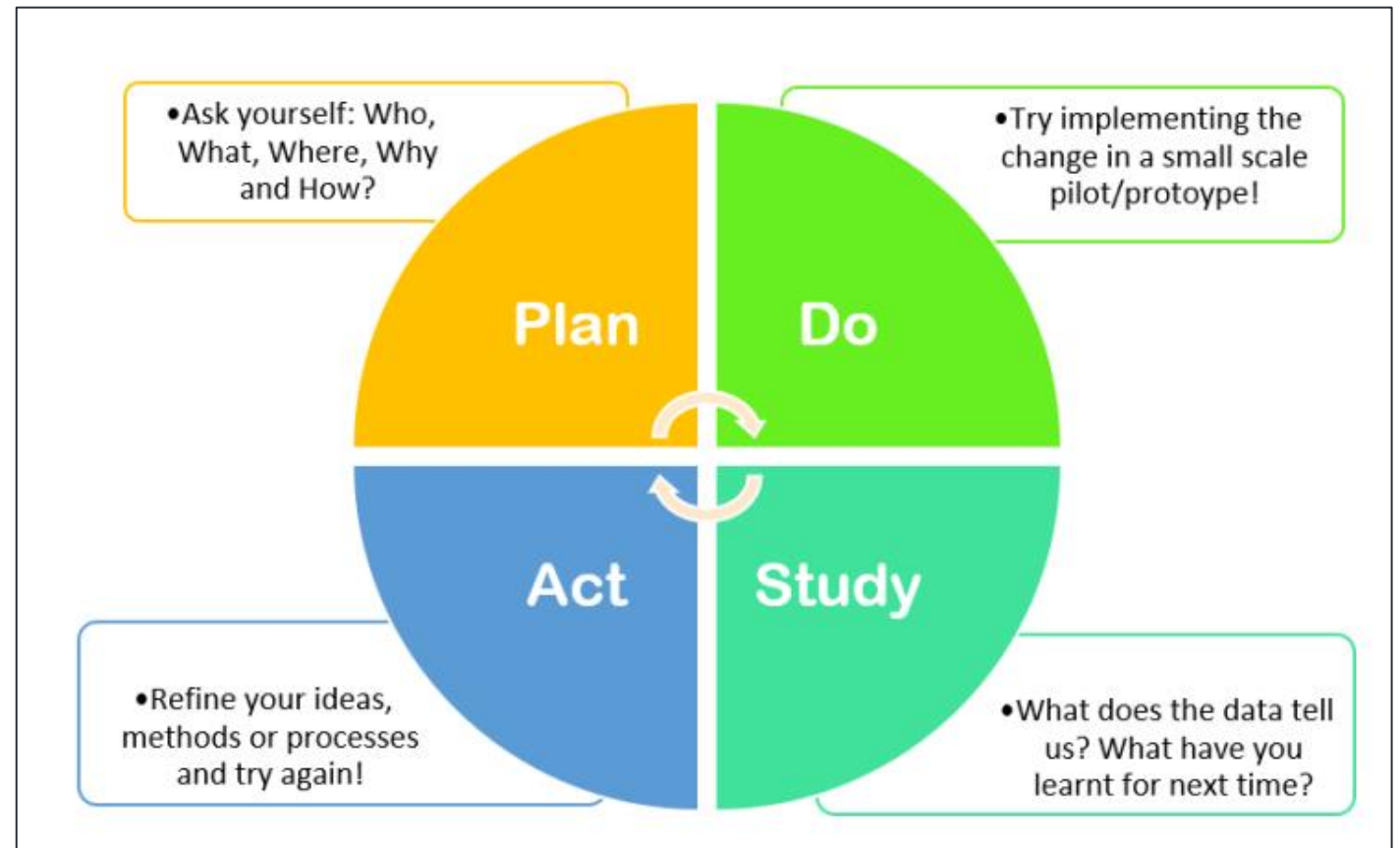
**What does problem-solving currently look like
in your role?**

- Share specific examples of challenges you are working to address in your program.
- Reflect on how you identify and analyze these problems (e.g., data, feedback, observations).

WHAT IS IMPROVEMENT SCIENCE?

Hinnant-Crawford (2020) states that the foundation of the *improvement process* is *developing* theory, *testing* that theory, and then *revising* that theory based on the results of those tests.

Improvement Process: *Plan-Do-Study-Act* (PDSA) Cycle



PLAN: DEVELOPING THEORY (ROOT CAUSE ANALYSIS)

5 WHYS TEMPLATE

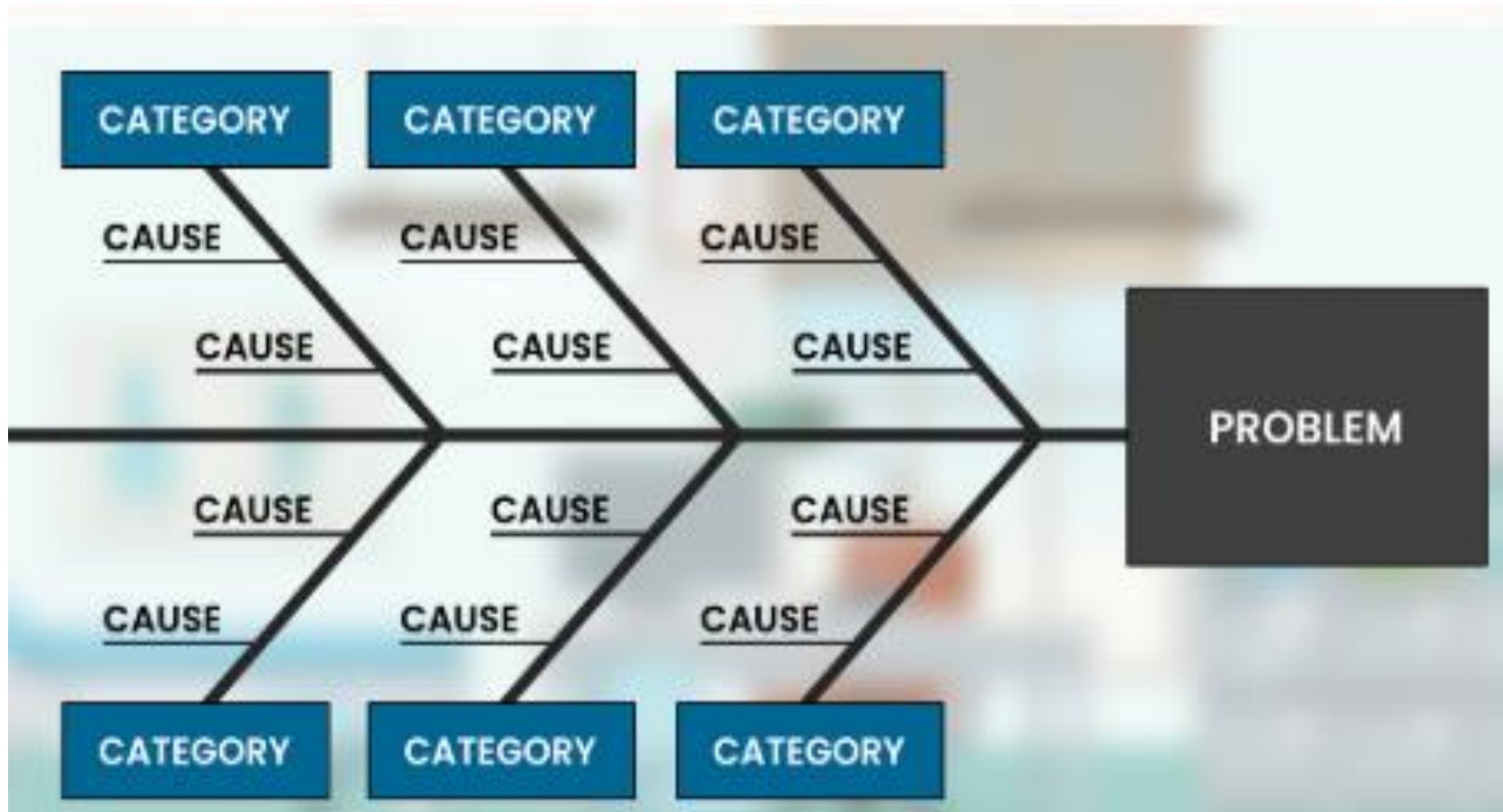
<p>PROBLEM OF PRACTICE</p>	<p>Define problem here</p>		
<p>WHY IS THIS A PROBLEM?</p> <p>1) Supported by academic and non-academic data (e.g. survey, interviews/ meetings, observations)</p> <p>2) A problem that can be impacted by your role and/or in collaboration with others in your organization</p>	<p>PRIMARY CAUSE Why is it happening?</p>	<p>1 It is happening because</p>	<p>Why is that? 2 It is happening because</p>
		<p>Why is that? 3 It is happening because</p>	<p>Why is that? 4 It is happening because</p>
	<p>NOTE: If the final "Why" has no controllable solution, return to the previous "Why."</p>	<p>Why is that? 5 It is happening because</p>	<p>ROOT CAUSE</p>
<p>QUESTIONS TO CONSIDER TOWARDS STRATEGIES</p>	<p>QUESTIONS TO CONSIDER</p> <p>1.</p> <p>2.</p> <p>3.</p>		<p>PARTY RESPONSIBLE</p> <p>DATE ACTION TO BEGIN</p> <p>DATE TO COMPLETE</p>

(Who, What, Where, Why and How)

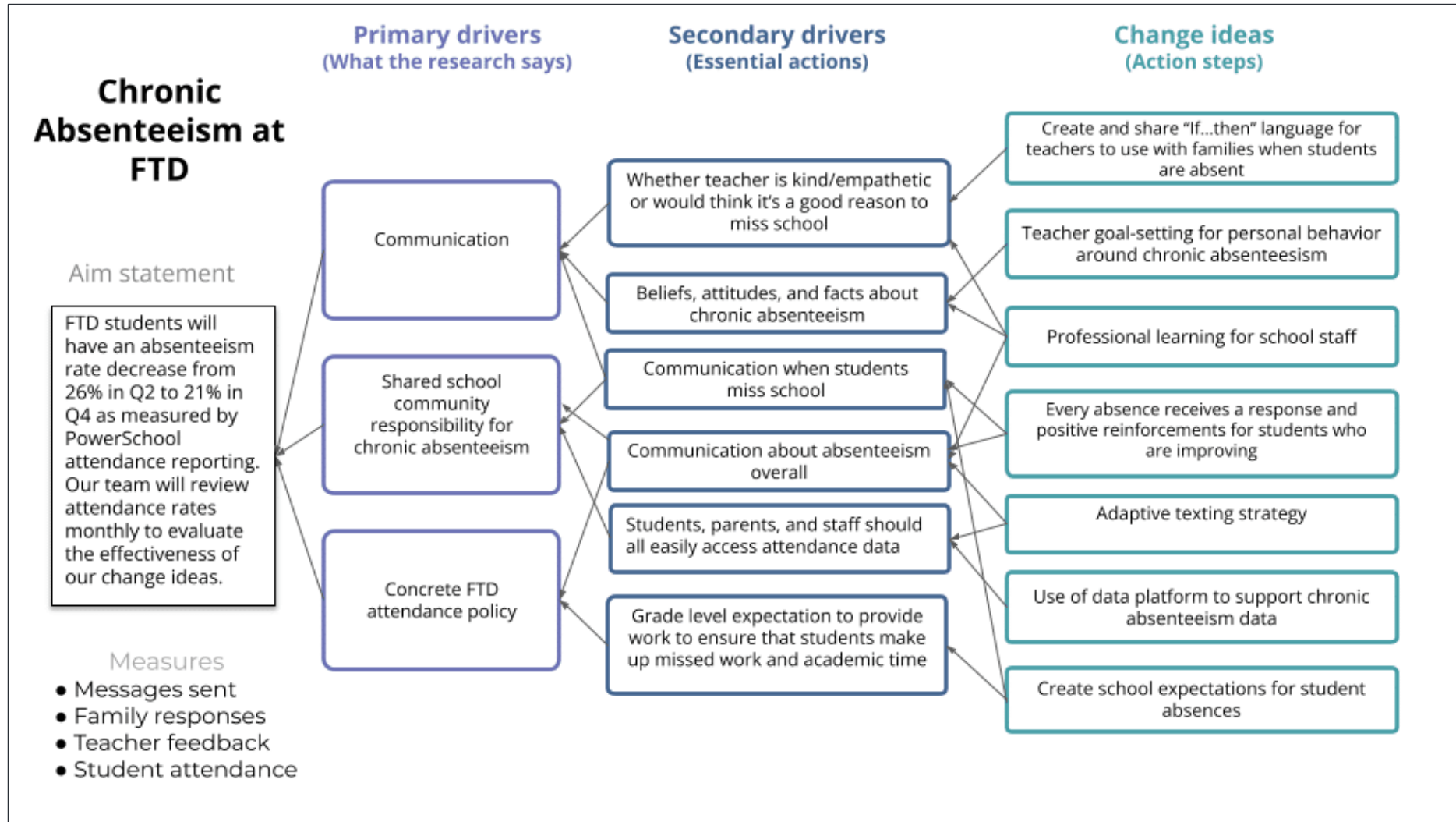


PLAN: DEVELOPING THEORY (ROOT CAUSE ANALYSIS)

Ishikawa (Fishbone) Diagram



DO: TESTING THEORY (THEORY OF IMPROVEMENT AND DRIVER DIAGRAM)



STUDY/ACT: REVISING THEORY (DATA COLLECTION AND ANALYSIS)

Data Collection Method (Measures)	Data Analysis
<p><u>Qualitative Data</u></p> <ul style="list-style-type: none">• Interviews• Focus Groups	<ul style="list-style-type: none">• Generate themes• Use to identify strategies• Refine ideas and methods, then try again
<p><u>Quantitative Data</u></p> <ul style="list-style-type: none">• Pre- and post activity surveys• Student/parent/staff engagement surveys	

IMPROVEMENT SCIENCE AT DEW: INTERNAL COHERENCE

Coherence Mission:

The Ohio Department of Education and Workforce seeks to strengthen interdepartmental communication and coordination, putting both LEA and student needs at the forefront of all decisions and actions.

Coherence Vision:

The Ohio Department of Education and Workforce is an active partner to LEAs in reaching improved outcomes for every student.

Coordinate activities occurring across the SEA to align and streamline requests of LEAs.

Reduce redundant LEA communication and requests.

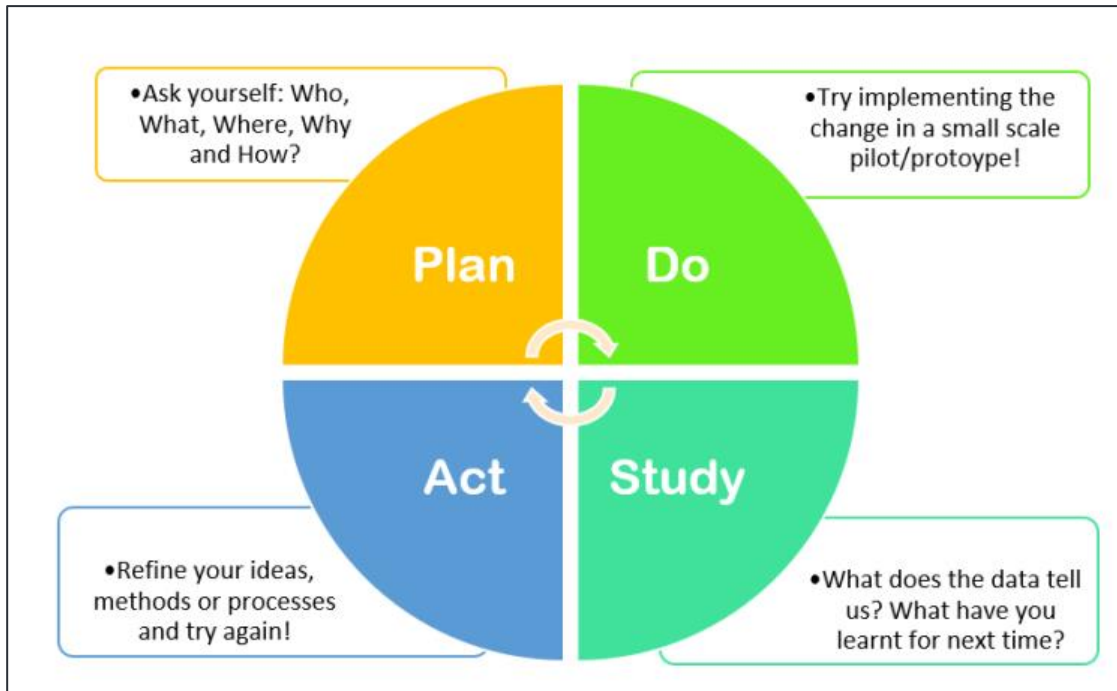
Align SEA policies and actions with DEW's key priorities set forth by leadership.

Create clear processes for communicating key updates about LEAs across offices and to SEA leadership.

DEW staff are deeply familiar with high-priority district activities, successes, and barriers.

DEW staff understanding the power of OST programs to support district needs

IMPROVEMENT SCIENCE AT DEW: CASE MANAGEMENT WORK



Cycle Action	Description of Work
Plan	Identify problems of practice with root cause analysis.
Do	Develop actionable steps
Study	Evaluate strategy effectiveness, including existing OST programs
Act	Plan for progress monitoring and evaluation for impact

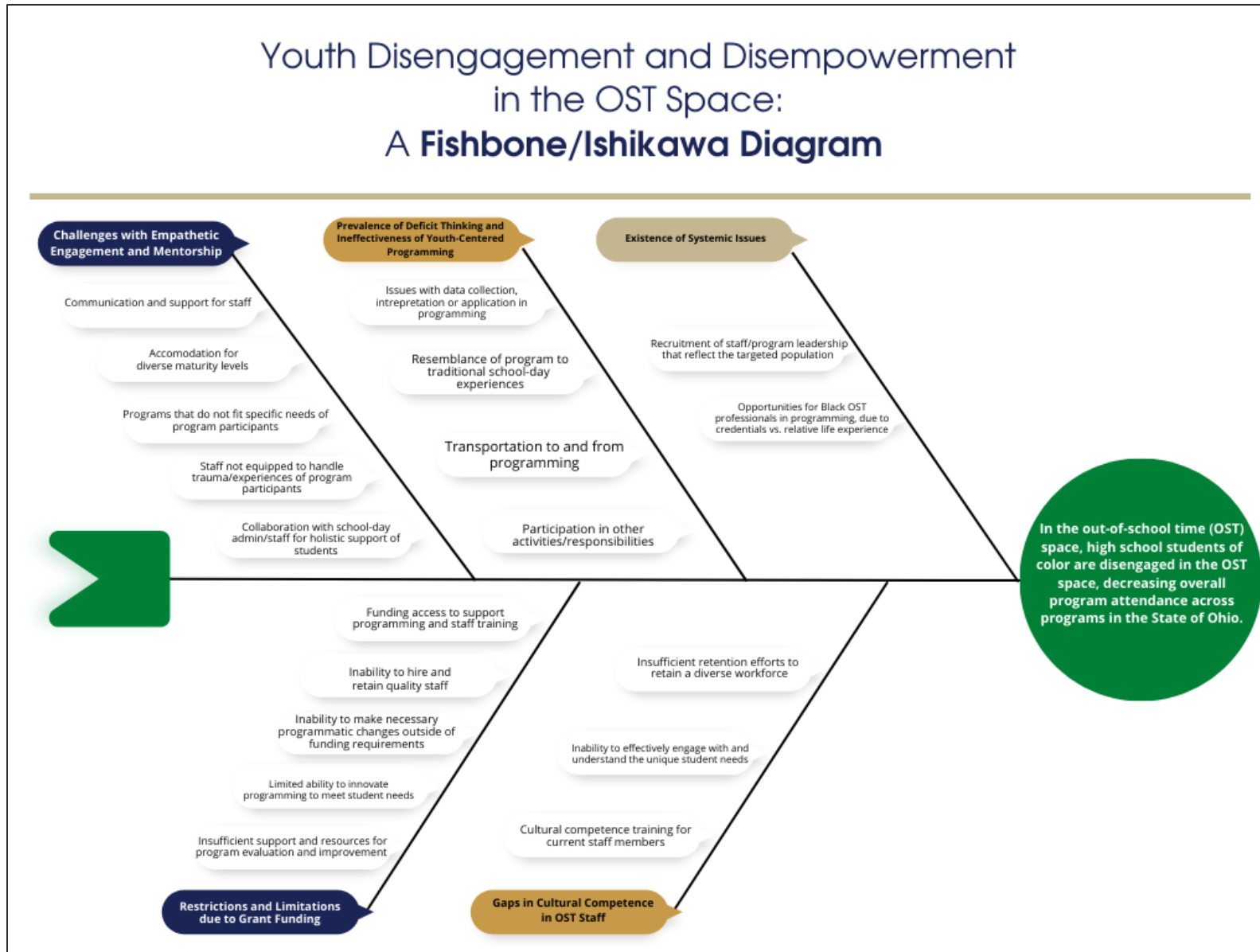
IMPROVEMENT SCIENCE AND HIGH SCHOOL OST PROGRAMS: A CASE STUDY

Information/Data	Description
Broader Problem Area	Disengagement of Black high school students in OST programs due to systemic challenges, like socio-economic barriers and minimal youth voice (Larson, 2000; Afterschool Alliance, 2020; Boughton & Dowell, 2021; Ohio Department of Education, 2023)
National and State Context	National: Only 1.6 of 25 million eligible youth can participate in 21 st CCLC programming due to funding limitations (U.S. Department of Education, 2022); State: FY23 21 st CCLC Competitive Priority, to encourage more high school programs in high-priority districts (Department of Education and Workforce, 2024).
Organizational Context	During the 2022-2023 school year, 16,449 students (out of 1.7 million) in Ohio had access to an OST program (Afterschool Alliance, 2023).

Problem of Practice: In Ohio's 21st CCLC out-of-school time (OST) programs, Black high school students are disengaged or disempowered as co-creators and co-owners in their learning experiences.



PLAN: DEVELOPING THEORY (ROOT CAUSE ANALYSIS)



PLAN: LITERATURE REVIEW (RESEARCH FRAMEWORK)

Student Learning	The students' intellectual growth and moral development, but also their ability to problem-solve and reason.
Cultural Competence	Skills that support students to affirm and appreciate their culture of origin while developing fluency in at least one other culture.
Critical Consciousness	The ability to identify, analyze, and solve real-world problems, especially those that result in societal inequalities.

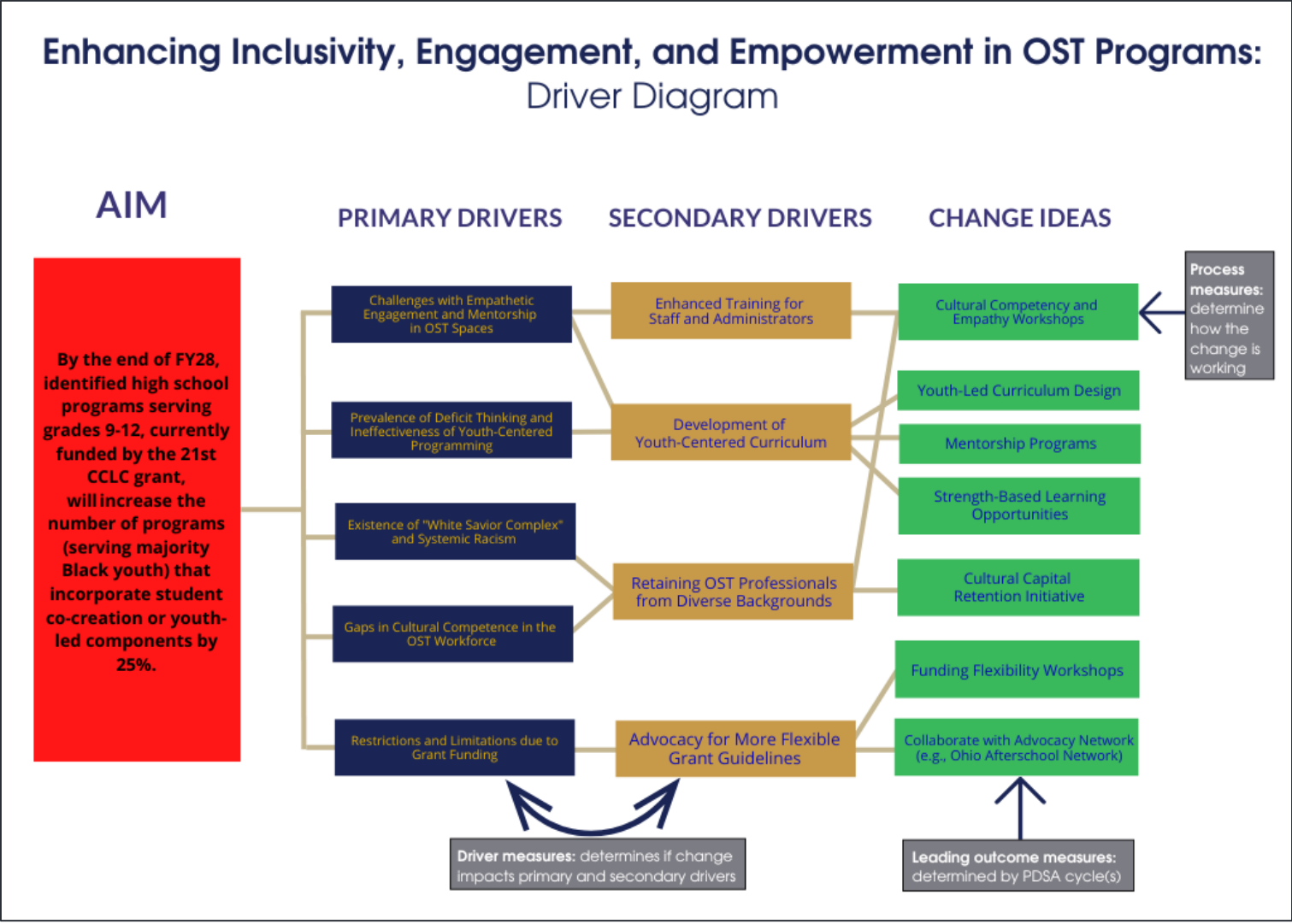
Culturally-Relevant Pedagogy (CRP)
(Ladson-Billings, 1994)

PLAN: LITERATURE REVIEW (RESEARCH FRAMEWORK)

Culturally Relevant Sustaining Education (CRSE)
(New York State Department of Education, n.d.)



PLAN: THEORY OF IMPROVEMENT, DRIVER DIAGRAM AND CHANGE IDEA



DO/STUDY: DATA COLLECTION AND ANALYSIS

ACT: REFINE IDEAS/METHODS FOR FUTURE USE

Data Collection	Data Analysis: Statistic and Thematic	Examples
<p><u>Qualitative Data</u></p> <ul style="list-style-type: none"> • Workshop breakout room activity sheets • Semi-Structured Interviews 	<ul style="list-style-type: none"> • Generate themes • Use to confirm the effectiveness of the training intervention <ul style="list-style-type: none"> • Co-designed by Dr. CDB/COSA • Offered/facilitated by COSA 	<p><u>Qualitative Data</u></p> <p>Power dynamics in programming: "It's not about us, we're trying to make this more fun and more engaging for the students."</p>
<p><u>Quantitative Data</u></p> <ul style="list-style-type: none"> • Pre- and post workshop surveys • Program staff engagement surveys 		<p><u>Quantitative Data</u></p> <p>Post-workshop results: 45% of participants rated their cultural competency as “excellent” (up from 13%).</p>

ACT: FINDINGS, STRENGTHS, LIMITATIONS AND IMPLICATIONS

Key Findings	Strengths/Limitations	Implications
<p>Increased Cultural Competency and Empathy: The PLC workshop improved staff's understanding and appreciation of the cultural backgrounds and challenges faced by Black high school students, fostering inclusive learning environments (Ladson-Billings, 1995).</p> <p>Enhanced Youth Voice: Staff's enhanced cultural competency led to increased youth voice in OST programming, allowing students greater autonomy and involvement in program activities (Osai et al., 2024).</p>	<ul style="list-style-type: none"> • STRENGTH: Alignment with 21st CCLC Goals Essential skills to program managers and staff early FY24 and ensuring immediate applicability and positive impact. • LIMITATION: Single PDSA Cycle • Multiple iterations = continual adjustment and deeper understanding of outcomes 	<ul style="list-style-type: none"> • DEW/COSA: Offer cultural competency training for all 21st CCLC programs • Implement strategies to amplify student agency and participation • Integrate case management support strategies

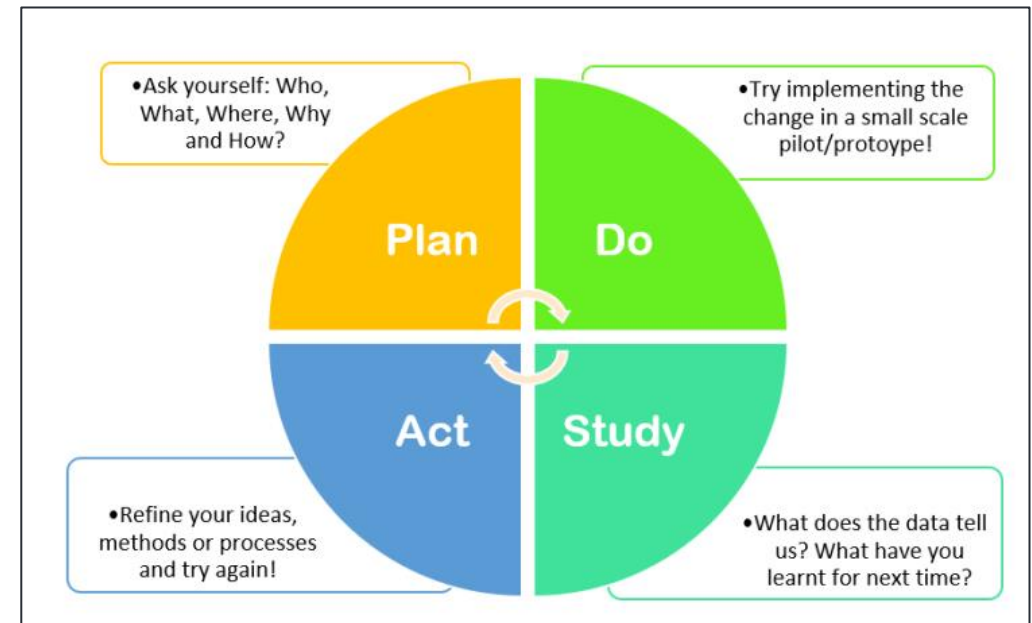
IMPROVEMENT SCIENCE AND OST PROGRAMS: WHY IT MATTERS

Benefits of Improvement Science in OST Programs

- Enhances program relevance connected to positive student outcomes, supporting alignment with the traditional school day
- Improves staff engagement in rapid problem-solving (intentional “bites”)
- Supports data-driven strategies to inform decision-making (e.g., low ELA/Reading testing scores – OST programs supplementing Science of Reading to increase success)

ACTIVITY: RAPID PROBLEM-SOLVING IN OST HIGH SCHOOL PROGRAMS

- **PLAN:** Review current problem of practice for high school programs
- **DO:** Conduct a "5 Whys" root cause analysis – *no "solutionitis"!*
- **STUDY:** Develop strategies and commitments – *what and who can help?*
- **ACT:** Plan for progress monitoring and evaluation – *check-in on strategy impact*



ACTIVITY SHARE-OUT

- Did your process lead to viable strategies? Why or why not?
- What could have been done differently?
- How will you use this to support long-term impact in your programs?

KEY TAKEAWAYS

- ❖ Using Improvement Science (IS) tools can formulate solutions within OST high school programs, through rapid problem solving.
- ❖ Collaboration with team members, organization leadership, evaluators and leveraging program/partner initiatives can amplify program impact.
- ❖ OST programs are improvement strategies, poised to support students in high-priority district and schools have an equitable opportunity for academic and non-academic success!

WORKSHOP FEEDBACK

Ohio's OST Conference Session
Feedback - Boosting OST Impact
through Improvement Science



<https://forms.office.com/g/3CJ1EHYZK9>

QUESTIONS?

Dr. Charmaine Davis-Bey

- Improvement Science, Case Management and general OST questions
- Email: Charmaine.Davis@education.ohio.gov
- Work Cell Phone: 1-614-980-9605

DEW 21st CCLC Team

- 21st CCLC program-related questions
- Email: Regional Consultant (cc: Valerie.Kunze@education.ohio.gov)

QUESTIONS?

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