

## Promising Practices for Innovation and Adaptation



Opportunities and  
Challenges to Adapt  
and Innovate } How Educators  
Confronted the  
COVID-19 Pandemic

 SCHOOL OF EDUCATION  
UNIVERSITY AT ALBANY State University of New York

## NYKids' COMPASS TOOL

University at Albany

School of Education

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## Contents

COMPASS Introduction .....	3
Overview of COMPASS+AIM Steps.....	4
Step 1: Compare Your School to Positive Outlier Schools.....	5
Step 2: Assess Priorities in Your School .....	14
Step 3: Select Levers for Improvement (note: Steps 3 and 4 are iterative - can be flipped).....	16
1. Empowerment and Collective Responsibility .....	16
2. Responsiveness and Flexibility.....	18
3. A Relationship- and Connection-Centered Orientation .....	21
4. Adaptive and Innovative Systems .....	24
Step 4: Setting SMART (+IE*) goals .....	26
Step 5: Action Planning.....	33
Step 6: Implementing.....	34
Step 7: Measuring.....	36
Appendix A. Continuous Quality Improvement and Improvement Science Principles .....	37
Appendix B. Fishbone Diagram .....	39
Recommended Resources.....	40

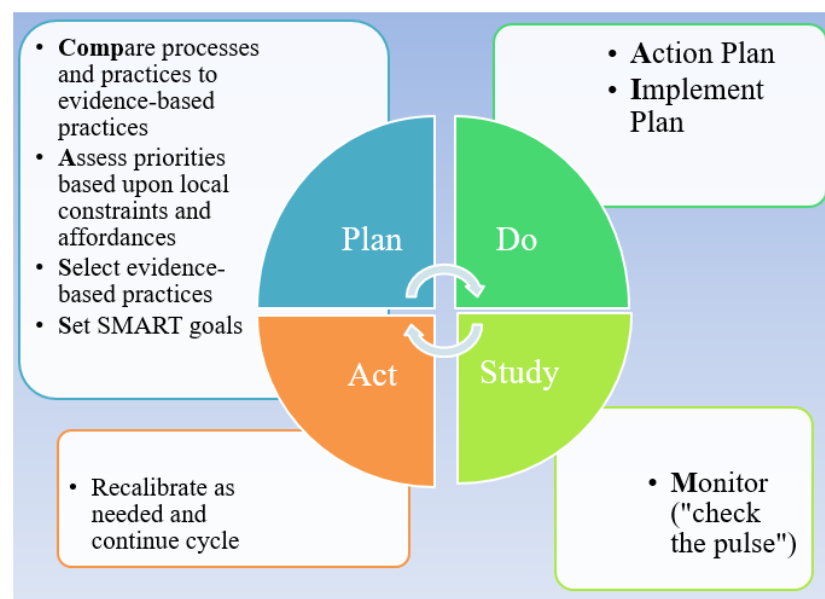
## COMPASS Introduction

The NYKids mission is to **inform** educators, policymakers, and the public about how schools are doing in supporting youth learning and development, to **inspire** innovative and successful practices through positive outlier research, and to **improve** schools through the use of NYKids' tools and direct continuous improvement support.

This tool is informed by improvement science principles (see Appendix A) and is based on six case studies of schools NYKids identified as positive outliers in our study, *Opportunities and Challenges to Adapt and Innovate: How Educators Confronted*

*the COVID-19 Pandemic*. These schools qualify as positive outliers because educators in them reported relatively more positive responses with regard to stress and job satisfaction amid the COVID-19 pandemic compared to other schools in the study. Each case study is available at [www.ny-kids.org](http://www.ny-kids.org) and highlights from them appear throughout this tool.

We sincerely hope that this tool helps support your improvement efforts and we invite you to utilize the NYKids repository of resources and find other information about research design and sampling methods at [www.ny-kids.org](http://www.ny-kids.org)



# Overview of COMPASS+AIM Steps

Step 1: **COMP**are your practices to positive outlier schools

Step 2: **Ass**ess priorities

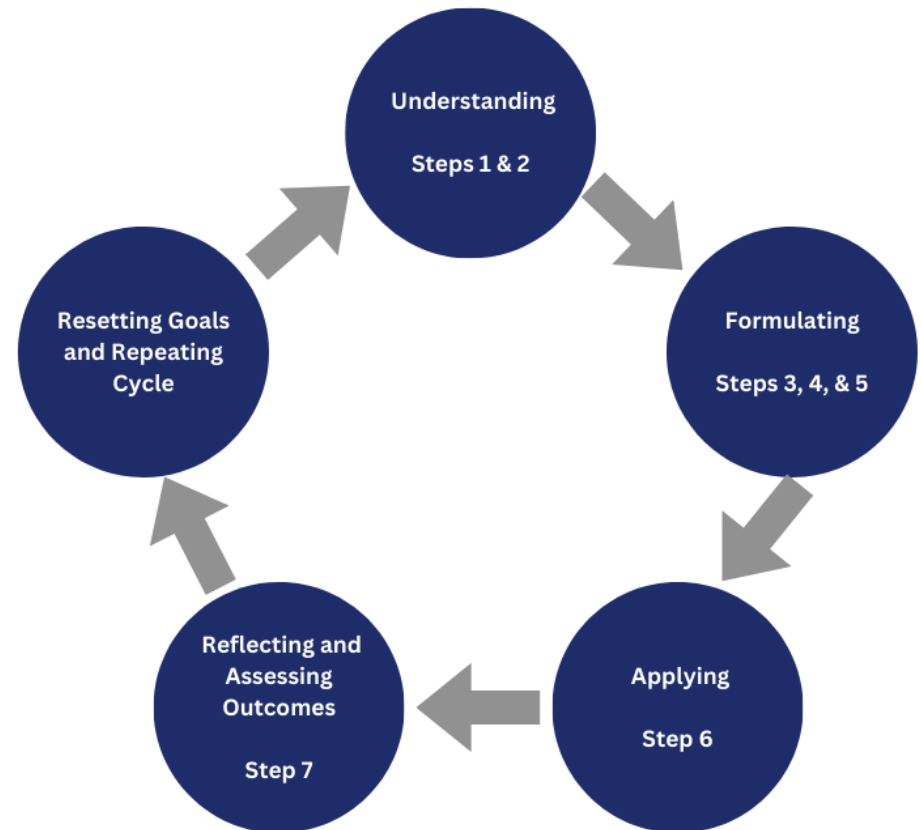
Step 3: **Se**lect levers for improvement

Step 4: **Se**t SMART Goals

Step 5: **Act**ion plan

Step 6: **Im**plement plan

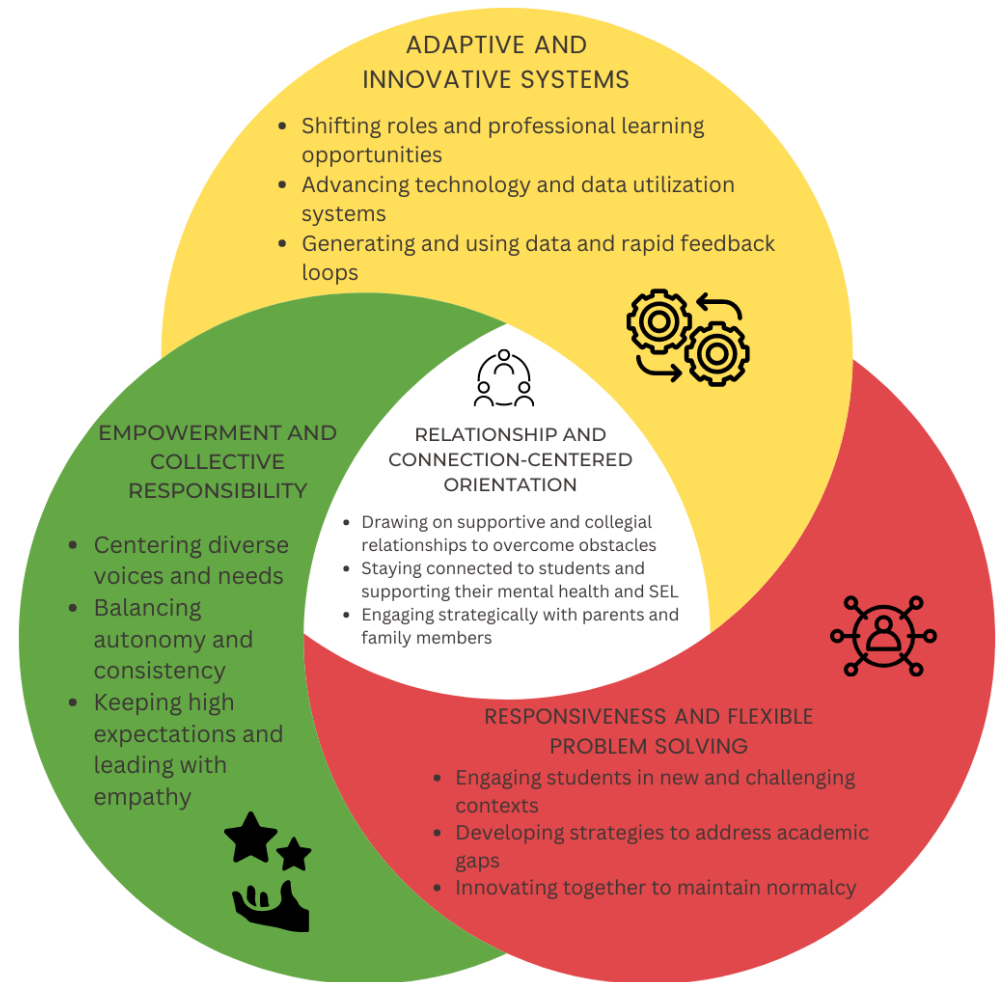
Step 7: **Me**asure outcomes



## Step 1: Compare Your School to Positive Outlier Schools

### An overview of promising practices

1. Empowerment and Collective Responsibility
2. Responsiveness and Flexible Problem Solving
3. Relationship and Connection-Centered Orientation
4. Adaptive and Innovative Systems



### ***Element 1: Empowerment and Collective Responsibility***

Assess to what extent your school or district...

	<b>Very Much (2)</b>	<b>Somewhat (1)</b>	<b>Not at All (0)</b>
<b>1. Implements policies, processes, and practices for multi-way exchange of ideas including the airing of what can sometimes be controversial</b>			
<b>2. Encourages collective problem solving and decision making by striking a balance between autonomy and consistency</b>			
<b>3. Maintains high expectations of students, staff, and community members with a focus on empathy</b>			
<b>Total</b>			

***Element 1: Here you may identify an area needing attention (i.e., an effect or outcome you do not want) and map potential causes for “somewhat” or “not at all” assessments.*** See Fishbone Diagram example in Appendix B.

## ***Element 2: Responsiveness and Flexible Problem Solving***

Assess to what extent your school or district...

	<b>Very Much (2)</b>	<b>Somewhat (1)</b>	<b>Not at All (0)</b>
<b>1. Engages students in new and challenging ways</b>			
<b>2. Sets high expectations for all students in both academic and behavioral senses while recognizing how their individual affinities and aptitudes builds resilience and enhances motivation</b>			
<b>3. Provides social and emotional supports in formal and informal ways to cement relationships and encourage attention to overall well-being, with reciprocal effects on academic performance</b>			
<b>Total</b>			



***Element 2: Here you may identify an area needing attention and map potential causes for “somewhat” or “not at all” assessments.*** See Fishbone Diagram example in Appendix B.

### ***Element 3: Relationship and Connection-Centered Orientation***

Assess to what extent your school or district...

	<b>Very Much (2)</b>	<b>Somewhat (1)</b>	<b>Not at All (0)</b>
<b>1. Redoubles efforts to maintain opportunities for educators to collaborate and provide support to each other in times of stress and upheaval</b>			
<b>2. Encourages educators and staff to develop close and caring relationships with students</b>			
<b>3. Engages parents and family members through a range of methods and communication tools</b>			
<b>Total</b>			

***Element 3: Here you may identify an area needing attention and map potential causes for “somewhat” or “not at all” assessments.*** See Fishbone Diagram example in Appendix B.

### ***Element 4: Adaptive and Innovative Systems***

Assess to what extent your school or district...

	<b>Very Much (2)</b>	<b>Somewhat (1)</b>	<b>Not at All (0)</b>
<b>1. Encourages flexibility in what roles and responsibilities staff will be prepared to take when confronted with novel challenges</b>			
<b>2. Integrates technologies and upgrading data capture and utilization systems in proactive ways</b>			
<b>3. Coordinates the delivery of essential services and use of community assets on a regular basis with planning for future crises</b>			
<b>Total</b>			

***Element 4: Here you may identify an area needing attention and potential causes for “somewhat” or “not at all” assessments.*** See Fishbone Diagram example in Appendix B.

## Step 2: Assess Priorities in Your School

For each of the elements record your individual total (column 1). Then with your group members add all individual totals and divide by the number in your group (column 2). In column three identify priorities from top->bottom: the lower the group average = the greater priority. Consider your community needs and resources as you determine your priorities.



	<b>Your Individual Total</b>	<b>Group Average (Add All Individual Totals/#in Group)</b>	<b>Priority</b>
<b>1.Empowerment and Collective Responsibility</b>			
<b>2.Responsive and Flexible Problem Solving</b>			
<b>3.Relationship- and Connection-Centered Orientation</b>			
<b>4.Adaptive and Innovative Systems</b>			

Once you have identified your priority area:


- ✓ refer to the levers for improvement in Step 3
- ✓ review the cross-case report section(s) of interest to get an overview of the promising practices
- ✓ see the suggested exemplar case studies and identify promising practices



## Step 3: Select Levers for Improvement (note: Steps 3 and 4 are iterative - can be flipped)


*Check those actions that might have impact in your context; consider these levers in light of your goals.*

<p><b>1. Empowerment and Collective Responsibility</b></p> <p><i>Case in Point: Whitesboro Middle School Campus</i></p> <p><a href="https://ny-kids.org/wp-content/uploads/2022/07/Whitesboro.MS_FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/07/Whitesboro.MS_FINAL.pdf</a></p>	<p>Other cases to refer to:</p> <ul style="list-style-type: none"> <li>✓ Lake George Elementary School <a href="https://ny-kids.org/wp-content/uploads/2022/07/LkGeorge-Report-COVID-Study.pdf">https://ny-kids.org/wp-content/uploads/2022/07/LkGeorge-Report-COVID-Study.pdf</a></li> <li>✓ Shaker Road Elementary School <a href="https://ny-kids.org/wp-content/uploads/2022/10/Shaker.ES_phase2_FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/10/Shaker.ES_phase2_FINAL.pdf</a></li> </ul>
<p><b>Implementing policies, processes, and practices for multi-way exchange of ideas including the airing of what can sometimes be controversial</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Provide multiple pathways for communication to occur including at the district, school, and classroom levels.</li> <li>✓ Offer transparency and humility regarding problem solving and decision making.</li> <li>✓ Spotlight the voices and needs of the most vulnerable and marginalized in the community and ensure that variable needs are met in timely and appropriate ways.</li> </ul>
<p><b>Encouraging collective problem solving and decision making by striking the right balance between autonomy and consistency</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Reinforce a student-centered and high expectations culture by sharing value and belief statements and</li> </ul>






	<p>reinforcing norms for collective problem-solving behavior.</p> <ul style="list-style-type: none"> <li>✓ Establish enough consistency in policies, procedures, and practices to offer clarity while also being flexible to adapt to circumstances in different contexts and based on different viewpoints.</li> <li>✓ Recognize and articulate the value of every individual's ideas and viewpoints.</li> </ul>
<p><b>Maintaining high expectations with a focus on empathy</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Model commitments to meeting high expectations balanced with empathy toward different people's experiences.</li> </ul>

<p><b>2. Responsiveness and Flexibility</b>  <i>Case in Point: Shaker Road Elementary School</i></p> <p><a href="https://ny-kids.org/wp-content/uploads/2022/10/Shaker.ES_phase2_FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/10/Shaker.ES_phase2_FINAL.pdf</a></p>	<p>Other cases to refer to:</p> <ul style="list-style-type: none"> <li>✓ Tamarac Secondary School  <a href="https://ny-kids.org/wp-content/uploads/2022/08/TAMARAC.HS_phase_2_FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/08/TAMARAC.HS_phase_2_FINAL.pdf</a></li> <li>✓ Lake George Elementary School  <a href="https://ny-kids.org/wp-content/uploads/2022/07/LkGeorge-Report-COVID-Study.pdf">https://ny-kids.org/wp-content/uploads/2022/07/LkGeorge-Report-COVID-Study.pdf</a></li> </ul>
<p><b>Engaging students in new and challenging ways</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Whether using technology in person or remotely, prioritize utilizing tools that are interactive and accessible for students with diverse needs.</li> <li>✓ Make available videos of lessons and use other multimedia for on-demand access.</li> <li>✓ Give educators resources, training, and autonomy to adapt instruction to meet diverse student needs.</li> </ul>
<p><b>Setting high expectations for all students in both academic and behavioral senses while recognizing how their individual affinities and aptitudes builds resilience and enhances motivation</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Utilize data to keep track of students' performance and create personalized plans to meet their needs.</li> </ul>



	<ul style="list-style-type: none"> <li>✓ Provide sufficient time for educators of different grade levels, content areas, and specializations to collaborate and share insights into students' needs.</li> <li>✓ Facilitate flexible academic programming for students experiencing anxiety or other mental health challenges.</li> <li>✓ Utilize mentors for academic support and to help students make connections through extracurriculars and clubs.</li> <li>✓ Create innovative summer enrichment programs based on student interest and to address academic and social-emotional learning needs.</li> <li>✓ Apply empathy for families who may be experiencing unknown struggles or challenges and actively listen to parent and caregiver ideas on how to support learning.</li> </ul>
<p><b>Providing social and emotional supports in formal and informal ways to cement relationships and encourage attention to overall well-being, with reciprocal effects on academic performance</b></p>	<p><b>To push this lever:</b></p>  <ul style="list-style-type: none"> <li>✓ Strive to maintain a sense of normalcy for students and families by adapting events and traditions to circumstances.</li> </ul>

	<ul style="list-style-type: none"><li>✓ Encourage peer to peer interaction wherever possible and safe.</li><li>✓ When making decisions about safety and planning for events or other extra-curricular activities, center the voices of multiple stakeholders: parents, caregivers, teachers, support staff, school- and district-level leaders, and specialists.</li></ul>
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<p><b>3. A Relationship- and Connection-Centered Orientation</b></p> <p><i>Case in Point: Lake George Elementary School</i></p> <p><a href="https://ny-kids.org/wp-content/uploads/2022/07/LkGeorge-Report-COVID-Study.pdf">https://ny-kids.org/wp-content/uploads/2022/07/LkGeorge-Report-COVID-Study.pdf</a></p>	<p>Other cases to refer to:</p> <ul style="list-style-type: none"> <li>✓ Tamarac Secondary School <a href="https://ny-kids.org/wp-content/uploads/2022/08/TAMARAC.HS_phase_2.FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/08/TAMARAC.HS_phase_2.FINAL.pdf</a></li> <li>✓ Deerfield Elementary School <a href="https://ny-kids.org/wp-content/uploads/2022/07/DEERFIELD.ES_NYKids-Case-Study.pdf">https://ny-kids.org/wp-content/uploads/2022/07/DEERFIELD.ES_NYKids-Case-Study.pdf</a></li> </ul>
<p><b>Redoubling efforts to maintain opportunities for educators to collaborate and provide support to each other in times of stress and upheaval</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Create time and space for formal and informal meetings when educators can share knowledge, skills, and strategies with each other.</li> <li>✓ Be present for colleagues and actively listen and hear their concerns.</li> <li>✓ Set aside time to catch up on work and for mental health breaks.</li> <li>✓ Highlight teacher voice during administrative meetings to better understand needs and establish clarity around roles and responsibilities</li> </ul>
<p><b>Encouraging educators and staff to develop close and caring relationships with students</b></p>	<p> <b>To push this lever:</b></p>

	<ul style="list-style-type: none"> <li>✓ Seek to strike a balance between focusing on academics and addressing students' social-emotional well-being.</li> <li>✓ Utilize tracking tools, such as surveys and focus groups, to better understand students' needs and concerns.</li> <li>✓ Develop mentorship programs to ensure students have at least one trusted adult they feel comfortable reaching out to.</li> <li>✓ Use a multi-tiered system of supports (MTSS) to address students' various needs.</li> <li>✓ Identify specific staff members to be point people to check in on struggling students.</li> <li>✓ Set aside times and places (e.g., during lunch or music breaks) for students to connect with one another and to focus on SEL.</li> </ul>
<p><b>Engaging parents and family members through a range of methods and communication tools</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Make use of various forms of communication, including social media, to update parents and family members.</li> <li>✓ Personalize communications with parents and family members (e.g., through home visits and phone calls) and</li> </ul>

	<p>seek out opportunities to share good news as well as concerns.</p> <ul style="list-style-type: none"><li>✓ Establish a digital “Help Desk” on the school webpage to assist with school-related issues parents and family members are experiencing.</li><li>✓ Provide learning opportunities to family members who are supporting their child with classwork or school activities.</li><li>✓ Listen to parents’ and family members’ concerns with empathy and authentic intent for understanding.</li><li>✓ Encourage parent and family member voices when planning new initiatives and provide frequent opportunities for their feedback.</li></ul>
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<p><b>4. Adaptive and Innovative Systems</b>  <i>Case in Point: Deerfield Elementary School</i></p> <p><a href="https://ny-kids.org/wp-content/uploads/2022/07/DEERFIELD.ES..NYKids-Case-Study.pdf">https://ny-kids.org/wp-content/uploads/2022/07/DEERFIELD.ES..NYKids-Case-Study.pdf</a></p>	<p>Other cases to refer to:</p> <ul style="list-style-type: none"> <li>✓ Whitesboro Middle School  <a href="https://ny-kids.org/wp-content/uploads/2022/07/Whitesboro.MS.FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/07/Whitesboro.MS.FINAL.pdf</a></li> <li>✓ Chatham Middle School  <a href="https://ny-kids.org/wp-content/uploads/2022/08/Chatham.MS.case-study.FINAL.pdf">https://ny-kids.org/wp-content/uploads/2022/08/Chatham.MS.case-study.FINAL.pdf</a></li> </ul>
<p><b>Encouraging flexibility in what roles and responsibilities staff will be prepared to take when confronted with novel challenges</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Distribute new roles and responsibilities as equitably as possible.</li> <li>✓ Be proactive in securing funding to fill current and projected human resource shortfalls.</li> <li>✓ Flex professional learning opportunities with new demands.</li> </ul>
<p><b>Integrating technologies and upgrading data capture and utilization systems in proactive ways</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Treat the use of technology and technology expertise as an essential component of strategic planning.</li> <li>✓ Open pathways for staff with technology expertise and/or interest to act in a supportive role – preferably</li> </ul>



	<p>compensated and acknowledged – to continue to deepen their expertise and support colleagues’ learning.</p> <ul style="list-style-type: none"> <li>✓ Leverage learnings from the pandemic with regard to technology use instead of reverting back to antiquated systems not functional or effective during crisis.</li> </ul>
<p><b>Coordinating the delivery of essential services and use of community assets on a regular basis with planning for future crises</b></p>	<p> <b>To push this lever:</b></p> <ul style="list-style-type: none"> <li>✓ Encourage systematic communications across departments/ functions across the district.</li> <li>✓ Coordinate connections/networks across the community and/ or region to supply health and other essential services to youth and families.</li> <li>✓ Re-imagine the school, school campus, and any other district spaces through the lens of the pandemic, asking “How and what do we need to change, improve, etc., to ensure the best use of spaces in and outside of the school now and in the future?”</li> </ul>

## Step 4: Setting SMART (+IE\*) goals

*A SMART goal is...*

- **Strategic and Specific** – Linked to district and school goals and strategic plan, focused on students, and targeted to what is likely to have the greatest impact on student outcomes. Answers the question – What exactly do we want to improve? (Underlying question – Why is this important?)
- **Measurable** – The success toward meeting the goal can be measured in student outcomes. Answers the question – What measures will we use to assess effectiveness? (Underlying question – How will we know if we are making progress toward our goals?)
- **Attainable** – Can be achieved in a specific amount of time, with resources available. It should be a stretch from current outcomes. Answers the question – When will actions be implemented and with what resources?
- **Results Oriented /Relevant/Rigorous** – Aligned with district and building goals and focused on increased student outcomes in a defined area. Answers the question – How does this goal relate to our school/district mission and what our community values?
- **Time Bound** – Has a clearly defined time frame including a target date. Answers the question – When will progress toward the goal be assessed?

\*Add an “I” and “E”<sup>1</sup> – Inclusion and Equity for students – Have we focused our attention on inclusive policies, processes, and practices and equity of opportunity for all students to learn and thrive (looking beneath averages)?

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<sup>1</sup> SMART-IE goals is an idea shared in collaborative work groups hosted by Shift. See <https://shift-results.com/>

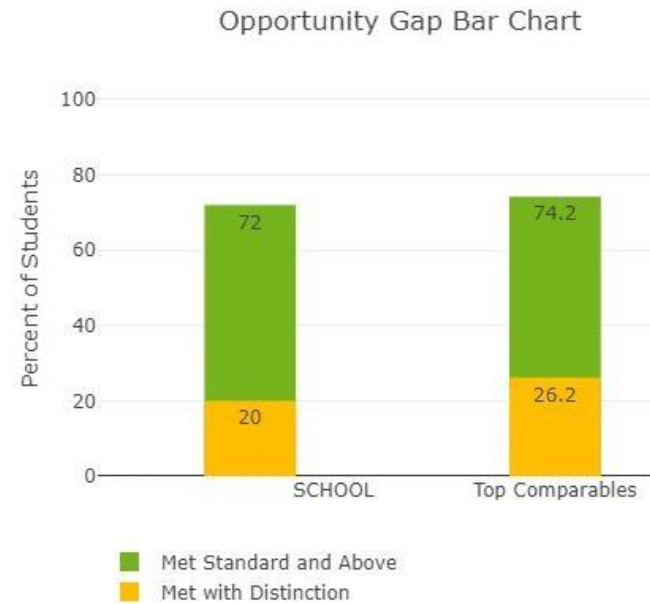
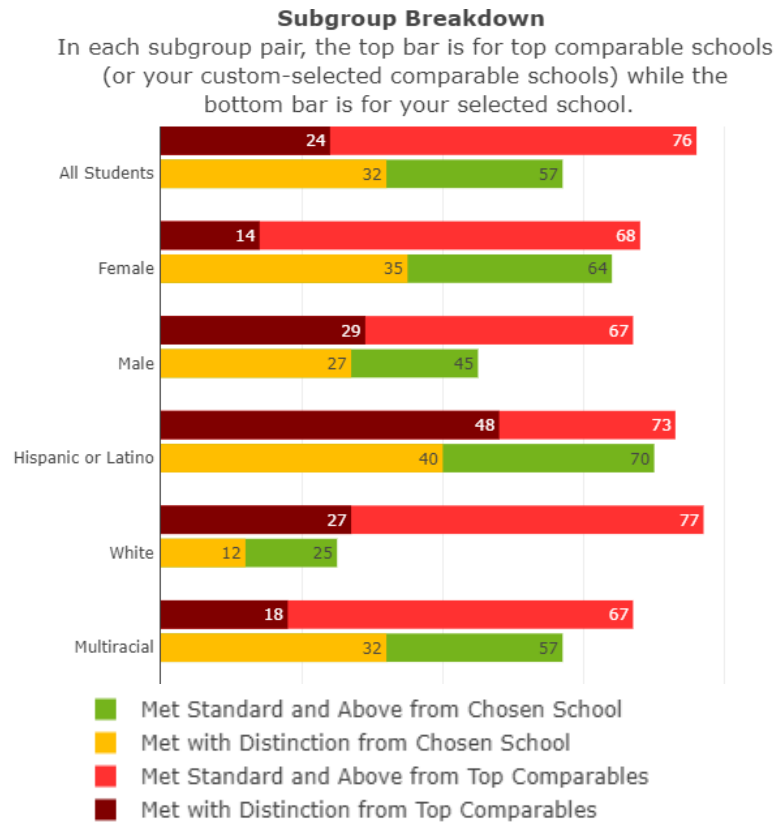
## ***Suggested Process for Setting SMART Goals***

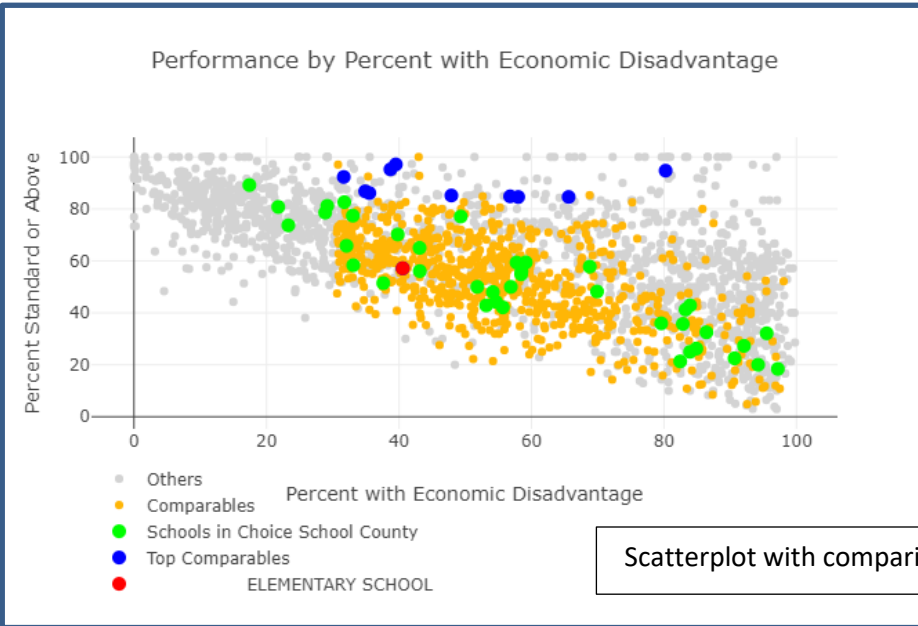
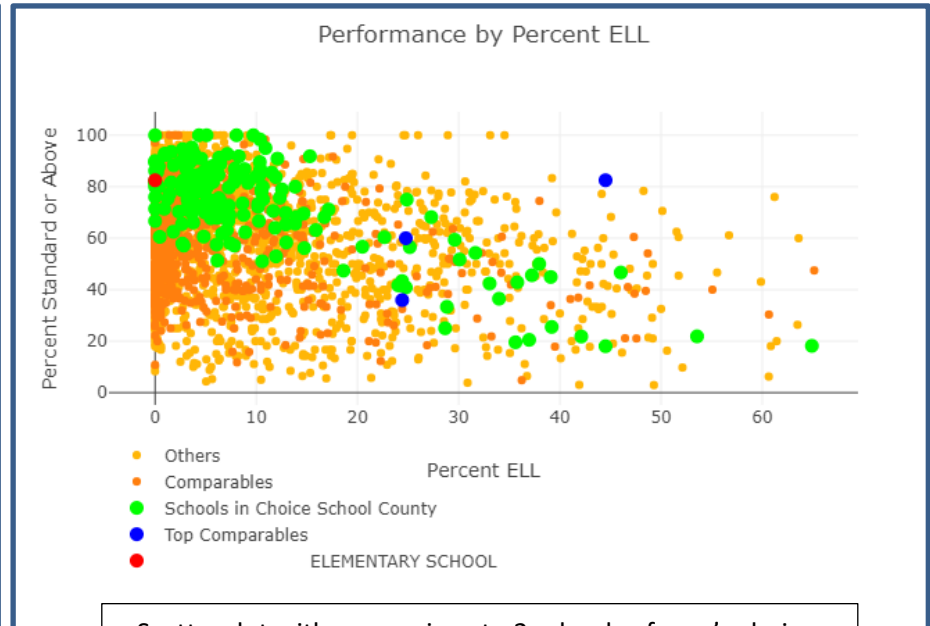
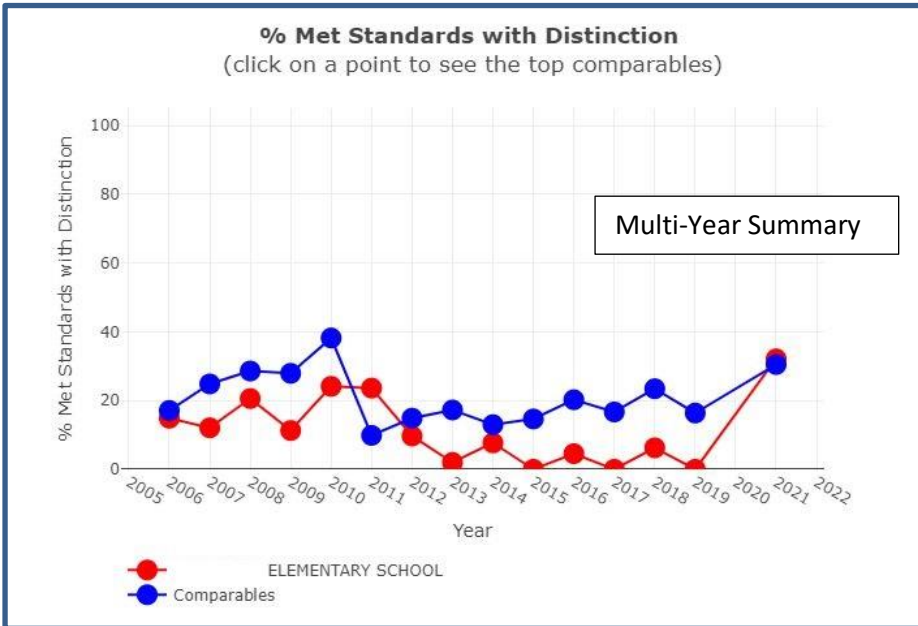
- **4.1:** Review steps 1-3. What are your priority areas? What levers for improvement did you select as most likely to have the greatest impact on student experiences and outcomes? Use the space below for notes.
  
- **4.2:** Review other resources, including the Know Your Schools website (see “performance tracker” at [www.ny-kids.org](http://www.ny-kids.org)).
  
- **4.3:** Begin drafting SMART goals using the SMART goal template as a guide.
  
- **4.4:** Record specific actions attached to each of the goals you have decided on and using suggested levers (or adaptations of levers) from this tool and/or other research.

**4.2 Primer on NYKids Performance Tracker ([www.ny-kids.org](http://www.ny-kids.org))**

The Know Your Schools Database User Guide: Select “Find Your School” to learn more about student outcomes. You have many choices of ways to display your data, as well as ways to compare your data to other schools’. For example,

- Do you have an “opportunity gap” (>-10% i.e., significant gap) with comparison schools?
- How are your sub-groups doing?








Views of your school's student performance over time can inform your SMART goal and aim setting especially with pinpointing student subgroup outcome targets. Ask: Where do we see variability?

### 4.3. Drafting SMART(+IE\*) Goals

(SMART goals defined, p. 23)

**Examples:** Assign individuals in your group the role of SMARTIE goal judge (Is this goal strategic, measurable, attainable, results-oriented/relevant/rigorous, time-bound and focused on inclusion and equity?). Remember that the best goals are student experience- and outcome-centered. Use the examples below to help craft your goals.

<p><b>Example 1:</b> <i>We will improve school climate.</i></p>		<p>This goal is too vague to support everyone’s understanding of what in the system needs change and how to achieve an improvement.</p>
<p><b>Example 2:</b> <i>By the end of the XX school year, BOE, SDM, faculty, staff, students and administration will co-design a process for gathering a diverse array of stakeholders’ input into creating a more welcoming and inclusive climate.</i></p>		<p>This goal is pretty good. Despite not focusing specifically on students, it has most features of a good SMARTIE goal and may be appropriate. It is also a process measure (i.e., “on the way”) vs. an outcome measure (i.e., ultimate impact on students).</p>
<p><b>Example 3:</b> <i>By the end of the XX school year, every student in [our school] will report higher levels of belonging.</i></p>		<p>This goal is simple yet great! It includes all the features of a SMARTIE student-centered goal. The next task is to line up how “belonging” would be supported and measured.</p>

#### ***4.4. Goal ->Aim->Action Plan Worksheet***

**Use your goal to inform your aim statement and connect it to your action plan.**

**GOAL**

**AIM: What specifically in the near term (e.g., school year) are we trying to accomplish?**

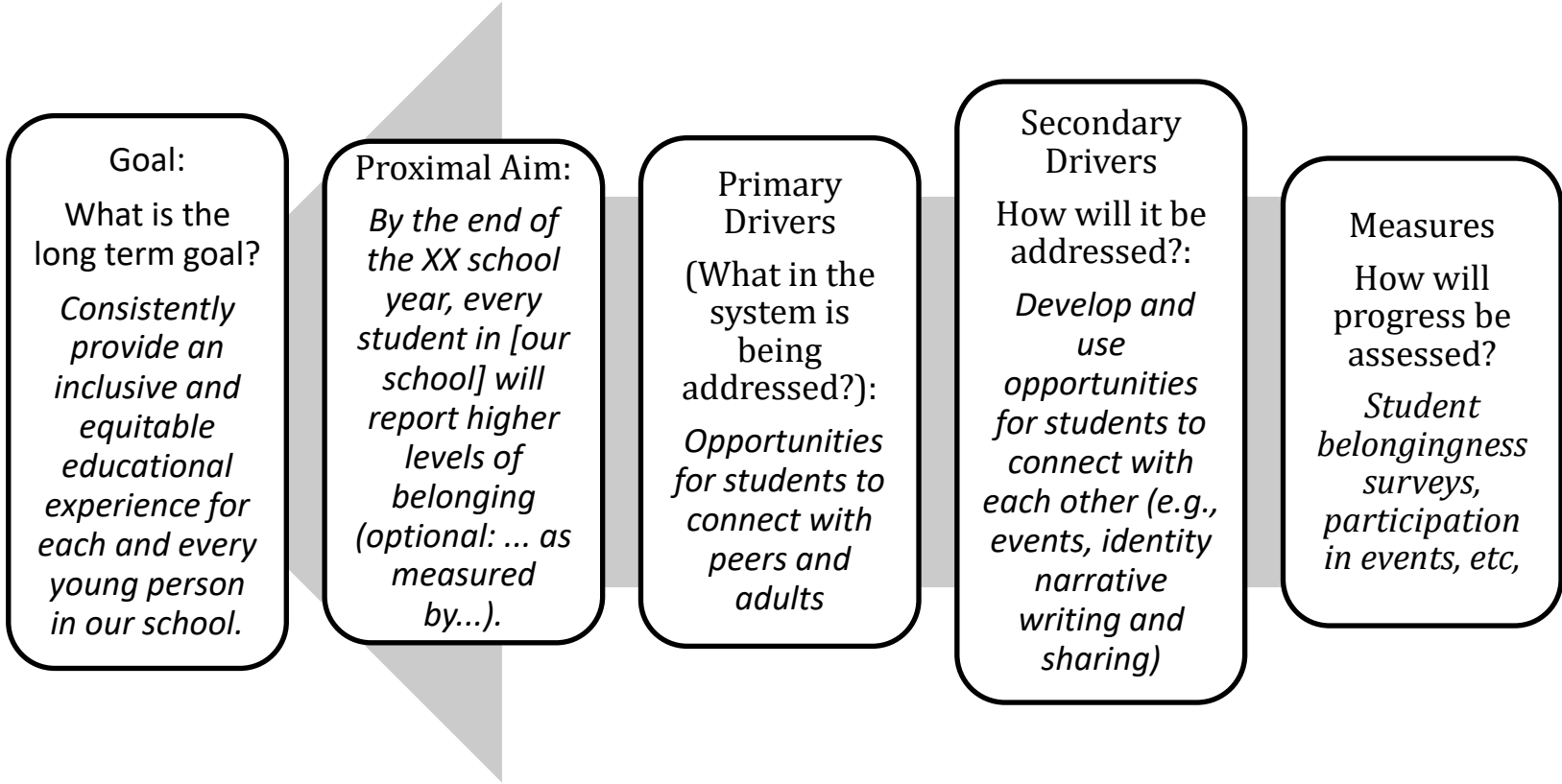


## Step 5: Action Planning

Steps 5-7 (Action plan; Implement; Measure) are designed to assist improvement teams in meeting their goals by suggesting strategies such as articulating aims, identifying levers and related drivers, and designing a measurement plan to gauge progress. These strategies are based on following improvement principles:

***Make the work problem-specific and user-centered and see the system that produces your outcomes.***

- *Articulate connections between distal goals (i.e., longer term/overarching), proximal aims (i.e., near or “on-the-way”), drivers, and measures.*
  - *A distal SMARTIE goal example: Consistently provide an inclusive and equitable educational experience for each and every young person in our school.*
  - *A proximal aim: By the end of the XX school year, every student in [our school] will report higher levels of belonging.*
- *Identify “primary drivers” (i.e., **what** contributes directly to achieving your aims?)*
  - *Opportunities for students to connect with peers and adults.*
- *Identify “secondary drivers” (i.e., **how** will you achieve your aims via your primary drivers?)*
  - *Develop and use opportunities for students to connect with each other (e.g., events, identity narrative writing and sharing).*



## Step 6: Implementing

***Improvement Principle: We cannot improve what we cannot measure.***

School District:

School:

Team Members:

Date/School Year:

**Goal:**

Specific Activities & Action Step	Who is Responsible?	Time Frame or Target Date	Evidence of Impact
<i>What action will take place to achieve this goal?</i>	<i>Who will participate and be responsible for initiating or sustaining these action steps?</i>	<i>What is a realistic time frame for the start and end of these activities?</i>	<i>What specific measures will we use to assess progress and impact?</i>

## Step 7: Measuring

### ***Improvement Principles: Anchor improvement in disciplined inquiry and focus on variability***

Working with your “evidence of impact” (i.e., measures) from Step 6 you can then monitor and study your progress.

For each of your data sets **ask**: *Does this require quantification of data (e.g., checking for “how often,” “how much,” “to what extent”) or descriptions of qualities of data (“in what way,” “how”) or both?*

For *quantitative* data, a variety of fairly expensive software programs are available (e.g., SPSS); however, some resources that you may already have available or are free are:

- Excel (allows for some statistical analysis and is often available with other Microsoft packages)
- The R Project: <https://www.r-project.org/>
- VassarStats: <http://www.vassarstats.net/>

For *qualitative* data, a variety of fairly expensive software programs are also available – some with short-term free trials (e.g., NVivo, HyperResearch, AtlasTi); however, some free trial or relatively inexpensive resources that may be helpful are:

- Qualitative and Mixed-method software: <https://www.dedoose.com/>

**The objective** will be to display your data in ways that answer questions about your progress toward your goals.

*What are the relationships between offering **students new opportunities to connect with their peers** and the percentage of students who **report higher levels of belonging** in the first term of the school year? (Data source option: tracking of participation in events; these data are quantitative and can be represented in a graph.)*

*How **effective** do students feel events are in making them feel a sense of belonging? (Data source options: student surveys, empathy interviews or focus groups; these data are qualitative and can be represented in a cluster chart of major themes noting outliers if evident and exemplar quotes.)*

## Appendix A. Continuous Quality Improvement and Improvement Science Principles

Why identify SMART goals and aims?

**The Six Core Principles of Improvement (from the Carnegie Foundation for the Advancement of Teaching: <http://www.carnegiefoundation.org/our-ideas/six-core-principles-improvement>)**

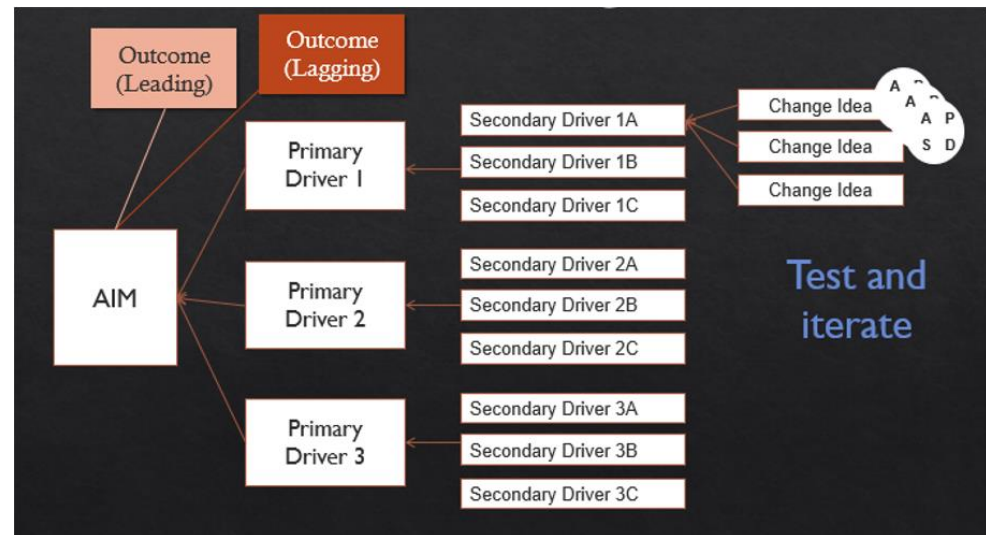
- 1. Make the work problem specific and user centered.** It starts with a single question: “What specifically is the problem we are trying to solve?” It enlivens a co-development orientation: engaging key participants early and often in continuous improvement work.
- 2. Variation in performance is the core problem to address.** The critical issue is not what works, but rather what works, for whom and under what set of conditions. Aim to advance efficacy and equity of opportunity.
- 3. See the system that produces the current outcomes.** It is hard to improve what you do not fully understand. Go and see how local conditions shape work processes. Make your hypotheses for change public and clear.
- 4. We cannot improve at scale what we cannot measure.** Embed measures of key outcomes and processes to track if change is an improvement. Schools are complex organizations. Anticipate unintended consequences and measure these too.
- 5. Anchor practice improvement in disciplined inquiry.** Engage rapid cycles of Plan, Do, Study, Act (PDSA) to learn and improve quickly. That failures may occur is not the problem; that we fail to learn from them is.
- 6. Accelerate improvements through network communities.** Embrace the wisdom of “crowds.” We can accomplish more together than even the best of us can accomplish alone. Look to connect with others in and outside of your organization to accelerate learning.

## Why identify drivers, change ideas, and measurements?

We can use continuous improvement methods to increase our odds of improvement successes through an early definition of the project's aim and early agreement on our organization's theory about what changes are necessary to achieve aims. The factors that influence the achievement of the aim are called "drivers." A driver diagram depicts the relationship between the aim, the primary levers that contribute directly to achieving the aim, and the secondary levers that are necessary to push the primary levers.

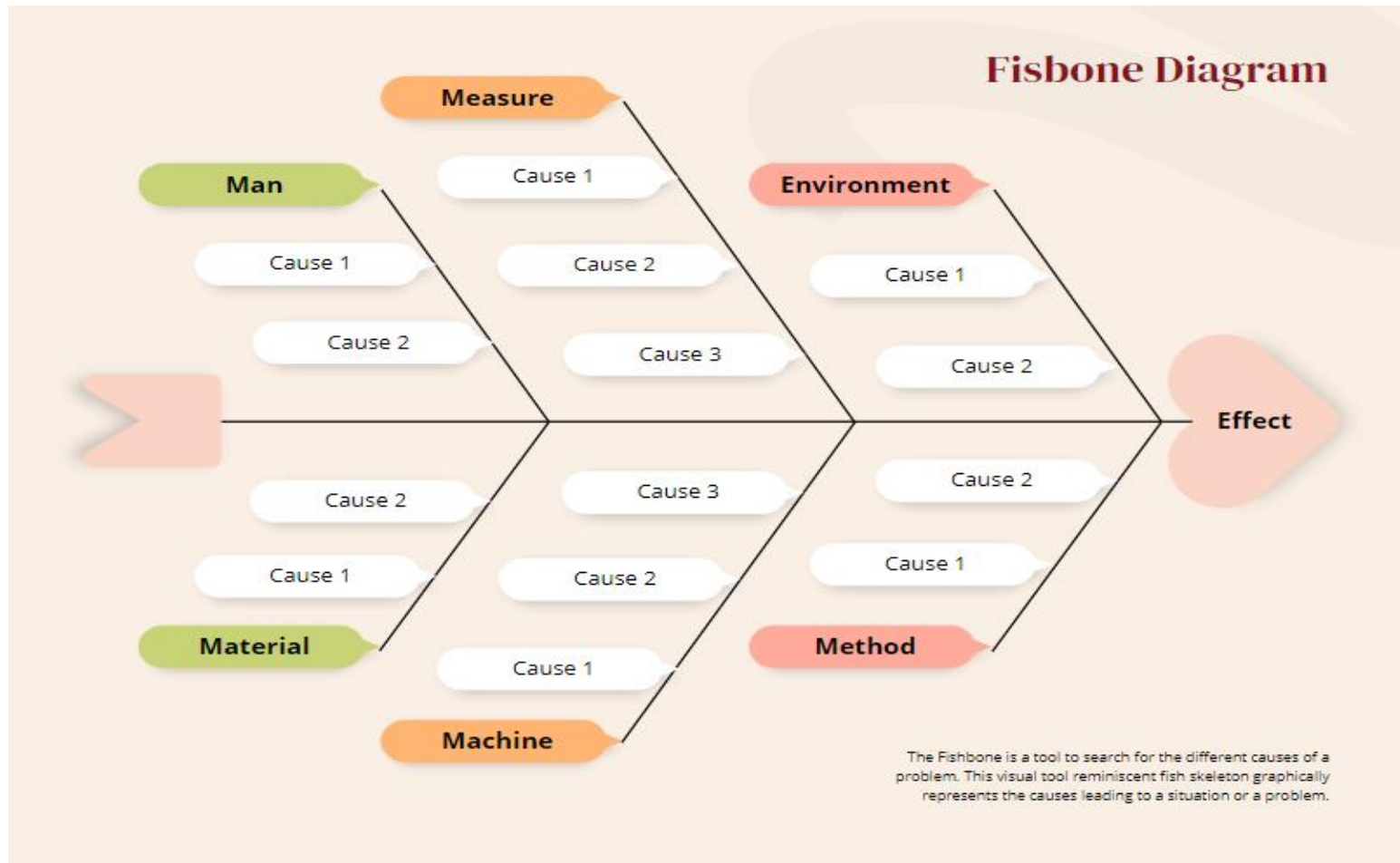
A driver diagram represents the team members' current shared understanding of "cause and effect" in the system. It sets the stage for defining the "what" and "how" elements of improvement efforts and the specific changes that are expected to lead to the desired outcome.

Creating a driver diagram is a useful process for planning an improvement effort as it helps to define which aspects of the system will be addressed and monitored. It also helps identify if the changes made are effective and if the underlying causal theories are correct.



Driver diagrams assist teams in staying focused and on course when they are used as regular references for the improvement work. The diagram should be updated regularly as the team acquires new knowledge and experience and shared widely so that all stakeholders understand the "why" behind change efforts.

## Appendix B. Fishbone Diagram



## Recommended Resources

### NYKids-related research and resources:

Wilcox, K.C., Leo, A., Tobin, J. & Khan, M. I. (2022) *Opportunities and challenges to adapt and innovate: How educators confronted the COVID-19 pandemic*. NYKids. School of Education, University at Albany, State University of New York.  
[https://ny-kids.org/wp-content/uploads/2022/11/NYKids\\_Report\\_2022.pdf](https://ny-kids.org/wp-content/uploads/2022/11/NYKids_Report_2022.pdf)

*Know your Schools~for NY Kids: A web-based data source.* <https://knowyourschoolsny.org/site/>

NYKids School Improvement Resources: <https://ny-kids.org/school-improvement/>

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

Wilcox, K. C., Angelis, J. I., & Lawson, H. A. (2015). *Developing capacities for evidence-guided continuous improvement*. Paper presented at the National Center for Scaling Up Research, Nashville, TN.  
[http://www.scalingupcenter.org/data/files/gallery/ContentGallery/Wilcox\\_Angelis\\_Lawson\\_Final.pdf](http://www.scalingupcenter.org/data/files/gallery/ContentGallery/Wilcox_Angelis_Lawson_Final.pdf)

### Other research and resources:

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

Bryk, A. (2020). *Improvement in action*. Cambridge, MA: Harvard Education Press. ISBN: 1682534995

Daly, A., & Finnigan, K. (Eds.). (2016). *Thinking and acting systemically: Improving school districts under pressure*. Washington, DC: American Educational Research Association.

Peurach, D. J., Russell J.L; Cohen-Vogel, L., Penuel, W. R, (Ed.). (2022). *The foundational handbook on improvement research in education*. Rowman & Littlefield.