Comprehensive Needs Assessment Toolkit

A Resource for Vermont Schools and School Systems Engaged in the First Phase of Continuous Improvement Planning

VERMONT
AGENCY OF EDUCATION

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Background

The comprehensive needs assessment process serves as a first step in continuous improvement planning. It is a process of analyzing data about a school or school system to learn what has occurred, is occurring and needs to occur to improve student outcomes (Bond & Sodat, 2016). The comprehensive needs assessment process leads to the identification of specific and measurable goals for improvement and high-leverage change ideas to achieve them.

What's in the Toolkit?

The Comprehensive Needs Assessment Toolkit was assembled to support schools and school systems engaged in the comprehensive needs assessment process. These explanations, tools and examples are provided to assist teams in developing or refining their own processes.

It is important to keep in mind that the steps outlined, and the resources provided form just one example of the comprehensive needs assessment process; there are many, largely similar, approaches from which Vermont school systems may borrow. The supports presented in this toolkit are not all-inclusive and additional resources may be needed to meet the specific needs of each LEA/School team, including those featured in the Education Quality and Continuous Improvement Framework. An effective, sustainable continuous improvement process is built on a foundation of conceptual understanding and familiarity with evidence-based practices. Teams should develop meaningful knowledge of the Education Quality and Continuous Improvement Framework before beginning their work.

The information presented in this toolkit represents Phase 1 of the Vermont model for continuous improvement (Assess Needs and Innovate). At the successful completion of these exercises, teams should have realized the following goals:

1. A basic understanding for the concepts that underpin the comprehensive needs assessment process;

2. A more precise understanding of the individual needs of their school or LEA;

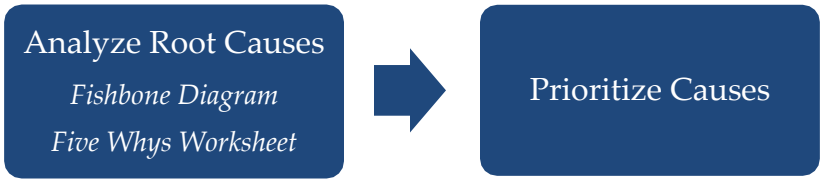
3. The identification of specific and measurable goals for improvement, and the creation of a working theory of improvement for meeting them.

Stages of the Comprehensive Needs Assessment

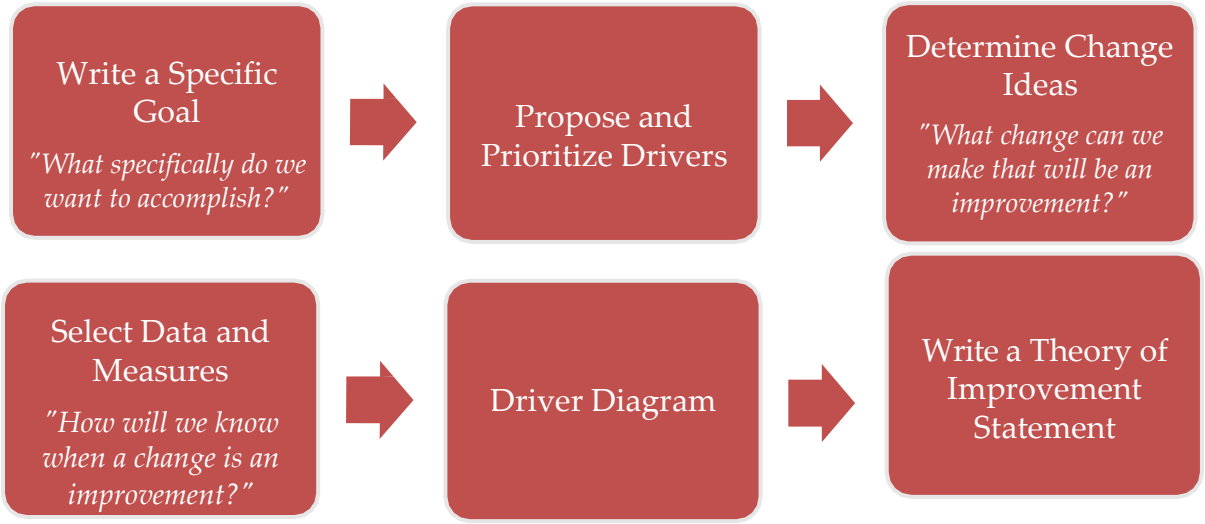
Preparing for Collaborative Inquiry

Identifying Priority Problems of Practice

Analyzing Root Causes



Developing a Working Theory of Improvement



Preparing for Collaborative Inquiry

Guiding Questions
• Have we included representatives with diverse perspectives from all stakeholder groups? • What are our shared beliefs about, and goals for, our students and schools? • What data is available to us, and what additional data do we need?
Tools
• Shared Vision Worksheet • Data Inventory and Analysis

Assemble a Needs Assessment Team

The first step in *Preparing for Collaborative Inquiry* is to assemble a group of diverse stakeholders to collaborate with. According to the Education Quality Standards (pg. 14) the continuous improvement plan shall be developed with the involvement of school board members, students, teachers, administrators, parents, and other community members. By inviting all stakeholders to participate, you establish a unified understanding of your schools, identify goals that reflect the vision of the entire learning community, and promote buy-in for improvement efforts. Keep in mind that not every member of the diverse stakeholder group needs to be involved with every single step of the process. Various stakeholders can be involved throughout the process in several ways including, developing a shared vision Statement, participating in Integrated Field Reviews, and participating in surveys.

Develop or Revise a Shared Vision

A shared vision is a written statement of your team's common beliefs and goals for school and student outcomes. If your school or district already has a shared vision, this step might involve introducing it to your stakeholders, checking for agreement, and possibly making minor revisions. If a shared vision doesn't exist, beginning a comprehensive needs assessment process is a good reason to write one. The shared vision can then serve to steer your needs assessment towards those priorities.

> ***Example:***
> "In the White River Valley Supervisory Union, a world-class education is built upon strong relationships between and among students, teachers, families, and communities. All students are supported, challenged, and engaged with a personalized education.
> Learning is rigorous and relevant to student interests while preparing every child for college, career, and active citizenship."
>
> *~White River Valley Supervisory Union, Royalton, Vermont*

"Miller's Run School is a welcoming and supporting community. Students learn in a positive and respectful school that meets their diverse academic, social, and emotional needs resulting in motivated and dynamic life-long learners."

-Miller's Run School, Sheffield, Vermont

Organize and Conduct a Broad Data Overview

Having assembled a diverse team united by a shared vision, the process of identifying specific goals and change ideas for improvement begins by assembling a broad overview of LEA or school data that represent a wide range of practices and outcomes. This will lead to the identification of broad academic area(s) of focus to explore further.

Most schools and LEAs collect four types of data (Bernhardt, 2003). See Appendix 1 for more examples of each data type:

1. **Demographic** data, including enrollment rates, retention rates, gender, race, ethnicity, disability, income, graduation and dropout rates
2. **Student Outcomes** data, including results of state and local assessments, curriculum-based measures, demonstrations of proficiency, formative measures, behavior and social-emotional health
3. **School Process** data, including measures of instructional practices, continuous improvement, curriculum alignment, professional learning, staff evaluation, resource availability, technology integration and program effectiveness
4. **Perceptions** data, including climates surveys, communication data, parent and community involvement data and focus groups

Collecting, presenting and analyzing data can be daunting for staff members with limited experience in these areas. Teams should consider supplementing the data literacy of their staff using traditional and digital resources. The Education Quality and Continuous Improvement Framework lists some potential supports, such as:

- Data Wise Process and Free Online Course
- The Data Informed District: Research on Using Data to Inform Practice
- A Practical Framework for Building a Data-Driven District or School
- Guide for Conducting a Comprehensive Needs Assessment
- School Reform Initiative Data Protocols

Shared Vision Worksheet

Purpose: To develop or revise a shared vision representing the common beliefs, values, and goals of all stakeholders (school board, students, teachers,
Directions: 1) Individuals should record their personal ideas in response to the guiding questions provided. 2) Small groups should convene to develop a shared response on a separate worksheet or large piece of paper. 3) The full group should assemble to merge small group work into a single, unified shared vision Statement that is written in the present tense.

Activities and Guiding Questions	Ideas and Responses
Brainstorm Core Values and Beliefs • What do we value in our students, our schools, our communities, and ourselves? • What do we believe are the factors that support effective learning and positive outcomes for all?	curiosity, diversity, problem-solving, independence, citizenship, lifelong learning
Brainstorm Core Purposes • What is the purpose of our work with and on behalf of students? • What are we committed to providing to our students and stakeholders?	high-quality instruction, challenging curriculum, opportunities for personalized differentiated learning, equity
Brainstorm Goals • Based on our core values, beliefs and purposes, what are our goals for our students and school(s)? • What would the successful implementation of our core values, beliefs and purposes look like / what would the outcomes be for our students?	every student prepared for middle and high school, healthy life choices, contribution to community (both local and beyond)
Draft a Vision Statement • With consideration for your team's shared core values and beliefs, core purposes and common goals, write a narrative or statement(s) that captures your vision for your students and school(s).	"Apple Orchard School fosters a spirit of lifelong learning and independence by celebrating the natural curiosity and diversity of our students. Through high-quality instruction and opportunities for personalized learning for all, our graduates are prepared to achieve a range of life goals and become positive contributors on local, national, and global scales."

Continuous Improvement Plan (CIP)/Consolidated Federal Programs (CFP)

DATA INVENTORY AND ANALYSIS

What: This inventory summarizes the data collection and initial findings used to initiate an LEA or school's Continuous Improvement Planning process and to provide justification and purpose for CFP investments.

Who: All LEAs and schools must complete and submit a data inventory and analysis annually, along with their CIPs, in order to proceed with the CFP application process. CFP applications will not be reviewed in the absence of complete LEA and school level data inventories and approved CIPs.

Why: Research supported best practice specifies that Comprehensive Needs Assessments underpin effective continuous improvement planning processes; they are therefore required under the Vermont Education Quality Standards and under the federal Every Student Succeeds Act to justify CFP investments. CFP investments that are not clearly supported by findings in an LEA or school's data inventory and analysis and assessed needs will not be approved by the CFP team.

How:

- Provide detailed data summaries for each domain, including specific results of quantitative and qualitative analyses.
- Data should be paired with descriptions of key findings that represent an initial analysis of both the current state of data and trends over time.
- Data and key findings will inform Continuous Improvement Planning and will support the justification of and clear purposes for CFP investments.
- All areas should be analyzed with a focus on students most at risk of not meeting standards/historically marginalized students.
- While no specific data source is required, other than SBAC student performance data, each data type – demographic, student outcome, and school processes – must be represented in this inventory.

LEA:_____ **School (if applicable):**_____

Part I: Education Quality Standards Data

Academic Proficiency

Potential data sources (non-exhaustive)

- Performance on state and national assessments, including assessments of English language proficiency (e.g., ACCESS scores)
- IFR Report
- Local formative and summative assessment data
- Lexile/Quantile data
- Walkthrough data
- EST Team data
- Kindergarten readiness assessments
- Classroom observation protocols
- Curriculum-based measures
- College admissions test data
- Pass rates on industry-recognized credentials
- College & career readiness outcome measures
- Graduation rates
- VTmtss survey

Focus	Sources Used
Math	
English Language Arts	
Science	
English Language Proficiency	
Global Citizenship	

Summarized Data and Key Findings

Personalization

Potential Data Sources (non-exhaustive)

- IFR report
- School climate survey data (student, parent, staff)
- Walkthrough data
- Data on student voice and choice in learning
- Classroom observation protocols
- Data on Flexible Pathways offerings and participation (e.g., student surveys, curriculum and student transcript reviews)

Sources Used

Summarized Data and Key Findings

Safe and Healthy Schools

Potential Data Sources (non-exhaustive)

- Health assessments, including physical education assessment data
- Disciplinary Exclusion data
- IFR Report
- Attendance data
- Disciplinary referral data
- EST Team data
- CIRS data
- PBIS data
- VTmtss survey
- YRBS data
- SWIS data
- School climate surveys (student, parent, staff)
- Counselor referrals
- School nurse referrals
- School safety measures
- Curriculum based measures (e.g., Second Step)
- Classroom observation protocols
- Walkthrough data

Sources Used

Summarized Data and Key Findings

High Quality Staffing

Potential Data Sources (non-exhaustive)

- IFR Report
- Measures of appropriately licensed educators
- Measures of staff stability/turnover - recent school year and multiyear trends
- Teacher Evaluation data
- Data on vacancy duration
- Measures of staff satisfaction with professional development and evaluation systems (e.g., staff surveys)
- VTmtss Survey

Sources Used

Summarized Data and Key Findings

Part II: Data Supporting CFP Investments

In the sections below, please document the LEA or school's data-supported needs related to the intents of Title I, Title II and Title IV. Such needs assessments are required by statute to support the use of these funds, and CFP investments must be clearly supported by the specific data and analyses provided to be approved. It is likely that much of the data and analyses documented below will be similar to what has been articulated above.

Title I Consideration: Needs of students most at-risk to not meet challenging state standards

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data (disaggregated for students most at-risk)
- Safe and Healthy Schools Data (disaggregated for students most at-risk)

Sources Used

Summarized Data and Key Findings

Title I Consideration: Parent and Family Engagement Needs

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data
- Safe and Healthy Schools Data
- Parent Surveys
- Parent Attendance

Sources Used

Summarized Data and Key Findings

Title I Consideration: Needs of students experiencing homelessness

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data (disaggregated for students who are homeless)
- Safe and Healthy Schools Data (disaggregated for students who are homeless)
- Homeless Liaison verbal reports
- Student self-reports
- Parent meeting minutes
- Barrier tracking logs
- Identification data
- Enrollment data

Sources Used

Summarized Data and Key Findings

Title I Consideration: Needs of English Learners

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data (disaggregated for students who are English Learners)
- Safe and Healthy Schools Data (disaggregated for students who are English Learners)

Sources Used

Summarized Data and Key Findings

Title II Consideration: Professional Development Needs

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data
- Safe and Healthy Schools Data
- Personalization Data
- High-Quality Staffing Data

Sources Used

Summarized Data and Key Findings

Title II Consideration: Teacher Evaluation and Feedback System Needs

Potential Data Sources (non-exhaustive)

- High-Quality Staffing Data

Sources Used

Summarized Data and Key Findings

Title II Consideration: Recruiting, Hiring and Retaining Effective Teachers

Potential Data Sources (non-exhaustive)

- High-Quality Staffing Data

Sources Used

Summarized Data and Key Findings

Title IV Consideration: Promoting Well-Rounded Educational Opportunities

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data
- Safe and Healthy Schools Data
- Personalization Data
- High-Quality Staffing Data

Sources Used

Summarized Data and Key Findings

Title IV Consideration: Promoting Safe and Healthy Students

Potential Data Sources (non-exhaustive)

- Safe and Healthy Schools Data

Sources Used

Summarized Data and Key Findings

Title IV Consideration: Promoting the Effective Use of Technology

Potential Data Sources (non-exhaustive)

- Academic Proficiency Data
- Safe and Healthy Schools Data
- Personalization Data
- High-Quality Staffing Data

Sources Used

Summarized Data and Key Findings

SAMPLE DATA INVENTORY AND ANALYSIS TOOL: Safe and Healthy Schools / Title IV (Safe and Healthy Students)

LEA: *Coolidge West Supervisory Union* **School (if applicable):** *Mountain Elementary School*

Part I: Education Quality Standards Data

Safe and Healthy Schools

Sources Used
SWIS data, walkthrough data, attendance data, school climate survey, school nurse data

Summarized Data and Key Findings

- Per SWIS data, the number of referrals for minor behaviors has been relatively steady over the past three years (205, 198, 208), while the number of major behavior incidents has decreased (33, 23, 20). Of the 20 major incidents this past year, 16 of them occurred outside of the classroom, and 10 of them were physical fights. Most common minor behaviors were class disruption, misuse of technology and minor language.
- Per walkthrough data, Responsive Classroom implementation is mostly consistent across classrooms, with all rooms meeting basic expectations of using The First Six Weeks of School, collaboratively developing classroom expectations, utilizing time out and time away spaces, using common language for redirection and conducting morning and afternoon meetings.
- Attendance data for the past three years indicates an overall decrease in total number of days missed but an increase in the number of students who have missed ten or more days (10, 16, 19).
- Key takeaways from the parent school climate survey include a strength in overall satisfaction with the culture and climate of the school, with 88% responding as "satisfied" or "very satisfied", a 15% increase from the previous year. Parents expressed continued high levels of concern about class disruption/loss of instructional time (65% of respondents) and increased concerns about unsafe student behavior (40%, up from 26%).
- Staff climate surveys indicate that staff are largely satisfied with Responsive Classroom (92%), with some concerns expressed that new teachers are not receiving enough support in implementation. 72% of staff report that school readiness is a concern, up from 55%, with "knowledge of classroom expectations" and "basic supplies" as areas of highest need.
- Nurse's data shows a 15% increase in well-being needs, such as hygiene, dental and hunger concerns, in kindergartners.

Part II: Data Supporting CFP Investments

Academic Proficiency, Safe and Healthy Schools, Personalization and High-Quality Staffing data can all be used to support the intents of CFP funding sources. Thus, some of the data and findings described in Part II of the Data inventory and analysis Tool will echo those described in Part I. Provide additional data as needed to ensure that all Title intents and local needs are adequately represented.

Title IV Consideration: Promoting Safe and Healthy Students

Sources Used
SWIS data, walkthrough data, attendance data, school climate survey, school nurse data, PD survey, school counselor interview

Summarized Data and Key Findings
• Per SWIS data, the number of referrals for minor behaviors has been relatively steady over the past three years (205, 198, 208), while the number of major behavior incidents has decreased (33, 23, 20). Most common minor behaviors were class disruption, misuse of technology and minor language. • Per Walkthrough data, Responsive Classroom implementation is mostly consistent across classrooms, with all rooms meeting basic expectations of using The First Six Weeks of School, collaboratively developing classroom expectations, utilizing time out and time away spaces, using common language for redirection and conducting morning and afternoon meetings. • Attendance data for the past three years indicates an overall decrease in total number of days missed but an increase in the number of students who have missed ten or more days (10, 16, 19). • Key takeaways from the parent school climate survey include a strength in overall satisfaction with the culture and climate of the school, with 88% responding as "satisfied" or "very satisfied", a 15% increase from the previous year. Parents expressed continued high levels of concern about class disruption/loss of instructional time (65% of respondents). • Staff climate surveys indicate that staff are largely satisfied with Responsive Classroom (92%), with some concerns expressed that new teachers are not receiving enough support in implementation. 72% of staff report that school readiness is a concern, up from 55%, with "knowledge of classroom expectations" and "basic supplies" as areas of highest need. • Nurse's data shows a 15% increase in well-being needs, such as hygiene, dental and hunger concerns, in kindergartners. • Professional Development survey identifies classroom management strategies as primary PD need of new staff. • Counselor describes doing more resource coordination, less proactive classroom and small group instruction this year.

Sample CFP Investments

Below are examples of Title IV investments that are supported by the local data and analyses presented above. The required statements of purpose at the beginning of these investments ("In order to…") are clearly aligned to specific needs introduced in the Data inventory and analysis Tool, demonstrating the reasonableness and necessity of the proposed strategies and ultimately supporting the approval of these investments by the CFP team.

Nbr	LEA / School	Funding Source	Description
1	P991-MOUNTAIN ELEM SCHOOL	TitleIVA	In order to address documented increases in the occurrence of truancy, school readiness concerns and physical well-being needs, MES to employ a 0.4 FTE Home-School Coordinator. Job description attached.
2	P991-MOUNTAIN ELEM SCHOOL	TitleIVA	In order to sustain and accelerate reductions in minor classroom behavior, prevent disruptions and increase time for instruction, six first- and second-year teachers will receive two days of training and up to eight hours each of personalized coaching in proactive classroom management approaches.

Identifying Priority Problems of Practice

• In what general area(s) are our outcomes not meeting our shared expectations? • What discrepancies, patterns, or trends within this Focus Area does the data reveal? • What unmet student needs have we uncovered, and which are the most important to address?
• Problem of Practice Worksheet

Choose Broad Academic Area(s) of Focus

Broad Academic Area(s) of Focus are general areas of need revealed during a broad data overview. They provide an initial direction for deeper data analysis. In addition to using the data, your team's shared vision, the Vermont Schools Annual Snapshot report for your LEA/school, and the expectations of Vermont's Education Quality Standards should influence the selection of broad academic area(s) of focus.

Examples:

"For the past three years, climate surveys indicate that more than half of students and parents are dissatisfied with the degree of personalization at our high school." **Focus Area: Personalization**

"Over the past four years, the average percentage of third grade students demonstrating proficiency in math was less than 30%." **Focus Area: Third Grade Math**

Recognize Trends in the Data

With a Focus Area agreed upon, a further examination of the data occurs in three steps.

1. The team identifies and collects **additional data** related to this area, as needed.

2. The team makes **factual observations** about the data (Boudett & Murnane, 2013). These observations should be objective and free of assumptions or biases, only stating what the data shows.

   Examples:

   "Course enrollment data indicates that less than 30% of 11th and 12th grade students have enrolled in a Flexible Pathways option over the past three years."

"Third graders have consistently underperformed in the area of Number Sense and Problem Solving relative to other strands of the SBAC Math assessment."

3. Once you have a clear picture of the facts revealed by the data, move on to **making inferences** about what these facts are telling you (Boudett & Murnane, 2013). These inferences should be based logically on your factual observations. Oftentimes, additional evidence will be needed to support an inference, leading to more data collection and observations.

Examples:

"Though generally interested, our students are either not aware of or not able to participate in the full range of Flexible Pathways options available to them."

"There is a gap in essential foundational skills necessary to proficiently solve word problems at the third-grade level."

"There is a difference in expectations in instructional practices for teaching Number Sense, Quantity, Counting, and Number Relationships and Operations/Problem-Solving at the early math primary learning levels."

Identify Priority Problems of Practice

Once sufficient data has been collected, observations made, and inferences drawn, a tentative conclusion can be made. This conclusion becomes a problem of practice, a hypothesis which has enough evidence supporting it to merit further analysis. However, it may be revised as new data is explored, and insights are gained.

Examples:

"Few 11th and 12th grade students are participating in Flexible Pathways options, contributing to a high degree of dissatisfaction with personalization efforts at our school."

"Low achievement in the areas of Number Sense and Problem Solving are resulting in a decline in overall math proficiency in third grade students."

"Not all teachers apply consistent high-quality instructional practices in mathematics in K-3rd grade."

Due to time and resource limitations, it is often necessary for teams to prioritize their problems of practice. When prioritizing problems of practice, ask "Which unmet student needs have we uncovered, and which are the most important to address?"

Problem of Practice Worksheet

Purpose: To explore data within your selected broad academic area(s) of focus, ultimately arriving at a Problem (or Problems) of Practice.

Directions:

1) Record your broad academic area(s) of focus and sources of data to be considered.
2) As a team, make factual observations about the data presented, looking for trends, patterns, or discrepancies.
3) Infer meaning from your factual observations. What might the data be telling you?
4) Ask clarifying questions to be answered, based on your inferences, and assemble the additional data needed to answer them.
5) Repeat this activity with your additional data until you've identified a clear problem(s) of practice within your broad academic area(s) of focus.

Broad Academic Area(s) of Focus

Third Grade Math

Sources of Data

SBAC, Local Assessment Data, Teacher Observations, AIMSweb

Factual Observations

- SBAC data indicates that less than 30 percent of third graders are proficient in math.
- SBAC data indicates that third graders are significantly less proficient in Number Sense and Problem-Solving than other SBAC Math strands.
- AIMSweb data indicates that less than 50 percent of students in Kindergarten through second grade are proficient in math computation skills.

Inferences

- Although students may be proficient in computation skills they are having difficulty making the connection to using those skills with problem solving.
- There is a foundational gap in problem-solving skills from the early primary years.
- There are differences in instructional practices and expectations when teaching problem solving skills in grades K-3.

Clarifying Questions

Are teachers using consistent practices across vertical alignment?
Do students have the necessary literacy skills needed to understand the word problems?
How are problem-solving skills being formally evaluated at the primary levels (K-2)?

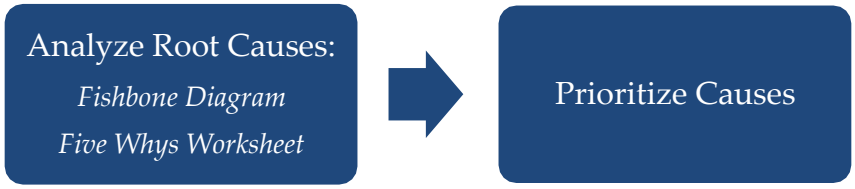
Additional Data Needed

Teacher observations, Formal K-2 Problem Solving Assessment

Problem of Practice

Not all teachers apply consistent high quality instructional practices in mathematics in K-3rd grade.

Root Cause Analysis



• What are the hypothesized causes and sub-causes of the problem of practice? Of the drivers identified, which contribute most significantly to our current outcomes? • What are the broad academic areas/categories of focus that influence our problem of practice?
• Fishbone Diagram • The Five Whys Worksheet

A root cause analysis is a process designed to help identify what, how, and why a problem of practice occurred and inform you of how you can prevent the problem from recurring. Root causes are specific underlying causes that can reasonably be identified, are within your control to fix, and allow for recommendations and solutions (Rooney & Vanden Houvel, 2004).

Analyze Root Causes

The fishbone diagram, also known as a cause and effect diagram is a graphic tool used to examine and visually display possible causes of a certain effect or problem. (IHI Open School Quality Improvement Practicum Handbook).
Causes are parts of the system and forces outside of a system that directly influence the outcome or goal of your improvement project. There are many causes that contribute to an effect or problem.

We recommend you consider these categories of causes when completing your fishbone diagram:

- **Resources:** human, financial, and material
- **Skills:** pedagogy, instructional methods, leadership
- **Knowledge:** content, processes, systems
- **Measures/Data**: formative, summative, all data collection
- **Environment:** physical environment, physical well-being, social-emotional health, school culture and climate, socio-economic influences, school governance
- **Processes:** policies, procedures, MTSS, communication

Cause and Effect Tool: Fishbone Diagram

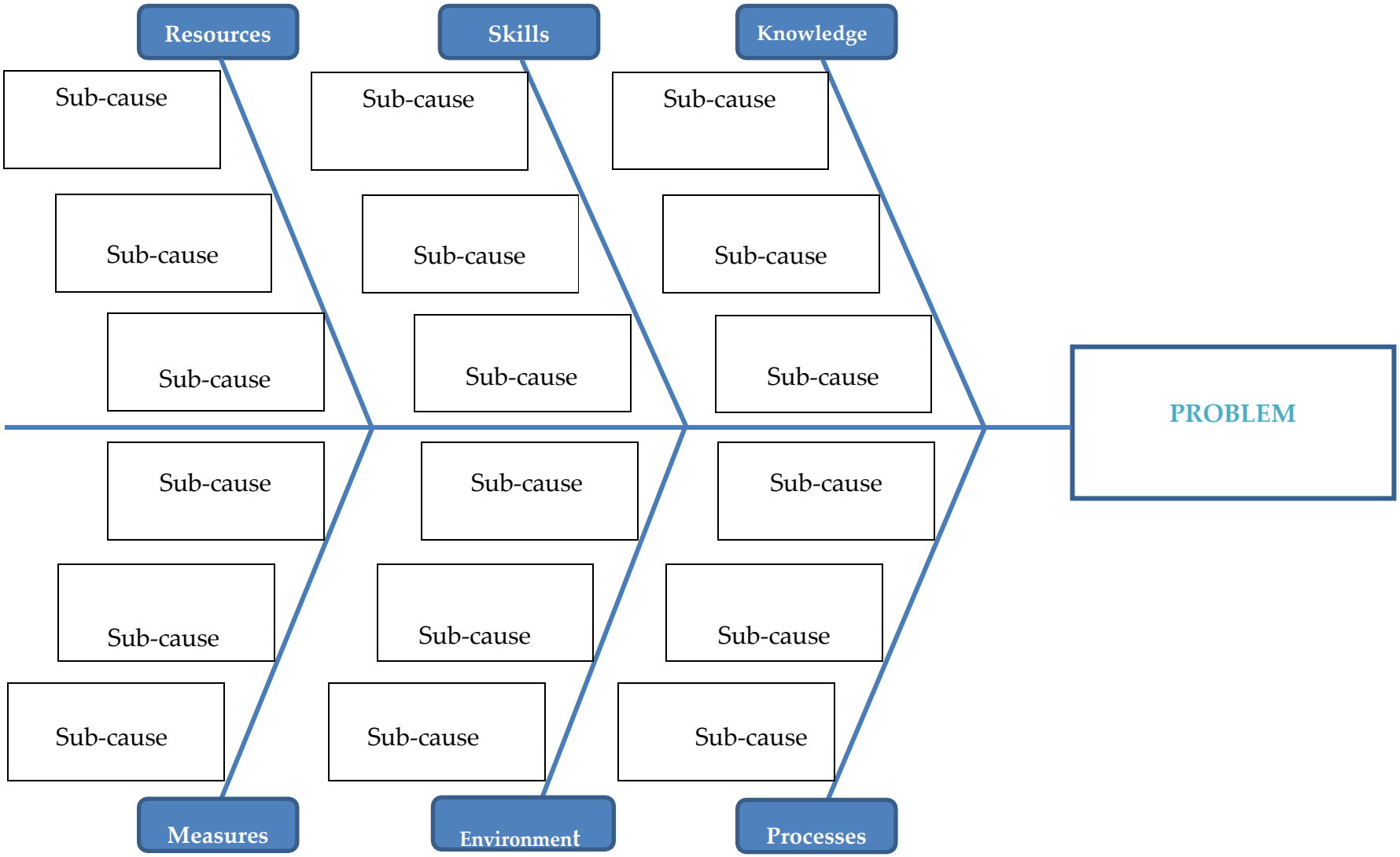
Purpose: To explore and examine the possible causes of a problem of practice.

Directions:

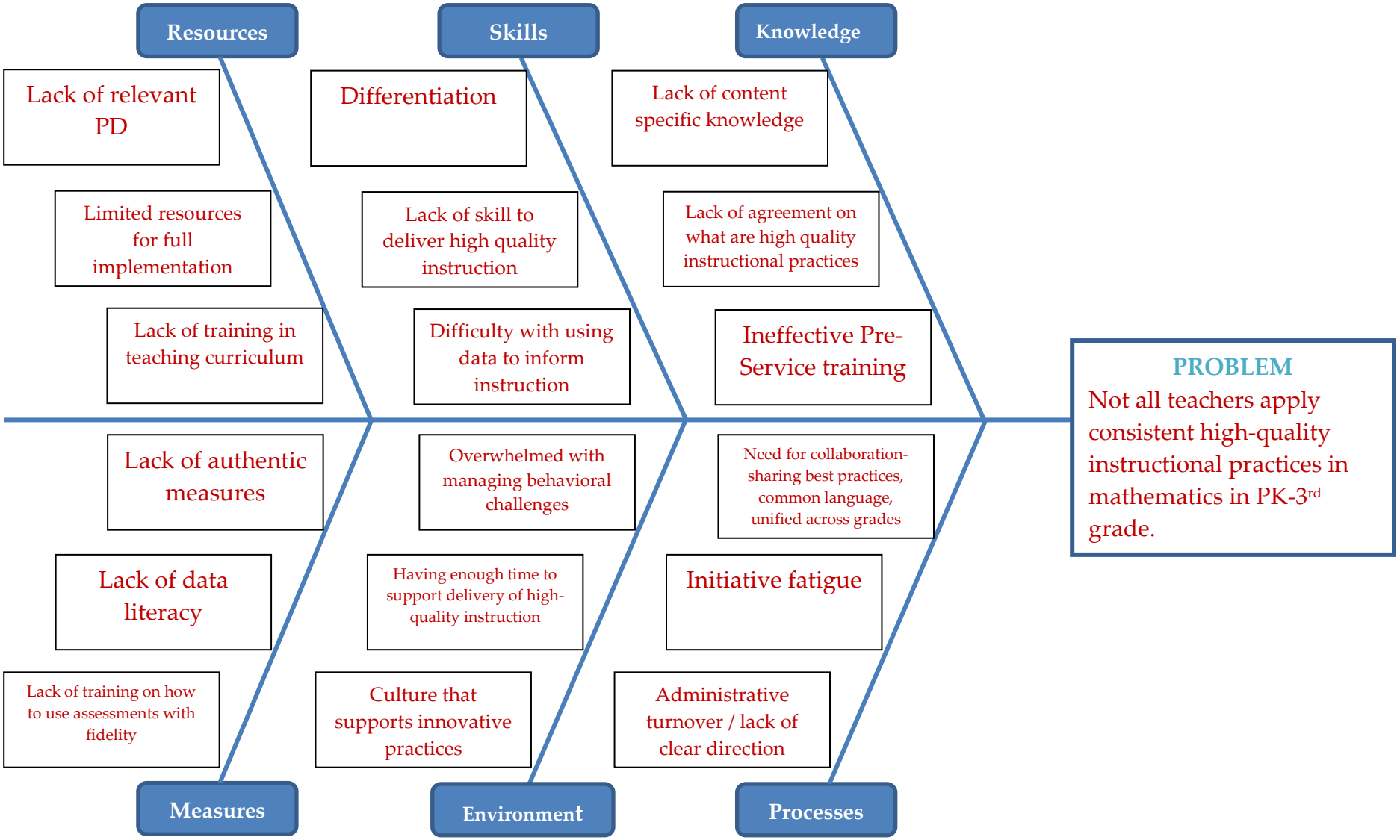
1. Write the problem of practice on the right-hand side of the page.
2. Decide on the categories of causes for the problem of practice. You may use the suggested causes, but keep in mind the categories used can vary depending on the problem. Be sure the categories you choose fit the problem.
3. Label the categories you have chosen in the blue boxes.
4. Brainstorm and collect a list of causes for each category you have chosen.
5. List the cause on each fishbone. If a cause has a secondary cause, draw a branch bone to show relationships among the causes.
6. Develop the causes by asking, "Why?" until you have reached a level of detail that is specific enough to be able to test a change and measure its effects.

Adapted from CCSSO and IHI Cause and Effect Tools

Fishbone Diagram



Fishbone Diagram- Example



Analyze Root Causes

The **Five-Whys** is a simple brainstorming tool that can help teams identify the root cause(s) of a problem. Once the problem of practice has been identified, ask "why" questions to reach the specific root cause(s). Teams will know they have reached a root cause when they have identified a reason that is within their control to address, and if the identified cause is addressed it will most likely result in the problem going away.

The Five Whys is closely related to the Fishbone diagram and can be used to complement the analysis necessary to complete a Fishbone diagram.

The Five Whys Worksheet

Purpose: To determine an actionable root cause to a problem of practice by asking "why" multiple times.

Directions:

1) Record your identified problem of practice.
2) Start asking "why" related to the problem, keep asking why in response to each suggested cause. Use data to support your reasoning.
3) Continue asking "why" (asking five times is typical) until your team arrives at a fundamental root cause that is supported by data, within your control to address, and if the identified cause is addressed the problem will most likely go away.
4) You may discover that you have not found a plausible, evidence-supported root cause, at which point you might reconsider one or all of your "whys".

Reminders:

- You don't want to list 5 different reasons, you want to go deep on one reason.
- If your last answer was something you can't control, go back up to the previous answer on one reason.
- The final answer cannot be because of a person.

The Five Whys Worksheet

Problem of Practice:

Why is it happening?

1.	**How do you know?** **Supporting Data:**

Why is that?

2.	**How do you know?** **Supporting Data:**

Why is that?

3.	**How do you know?** **Supporting Data:**

Why is that?

4.	**How do you know?** **Supporting Data:**

Why is that?

5.	**How do you know?** **Supporting Data:**

Identified Root Cause

The Five Whys Worksheet- Example

Problem of Practice: Not all teachers apply consistent high-quality instructional practices in mathematics in PK-3rd grade.

Why is it happening?

Lack of common understanding of what high-quality instructional practices in math are and what they like in practice.	**How do you know?** **Supporting Data:** Teacher surveys, Teacher interviews, PLC Meeting Minutes

Why is that?

Lack of skill in teaching the current math standards, math curriculum, and differentiating instruction to meet the needs of all learners.	**How do you know? Supporting Data:** Curriculum, Instruction, and Assessment Audit

Why is that?

We have not received the appropriate Professional Development in these specific areas	**How do you know? Supporting Data:** Professional Development Audit, Professional Development Attendance Records

Why is that?

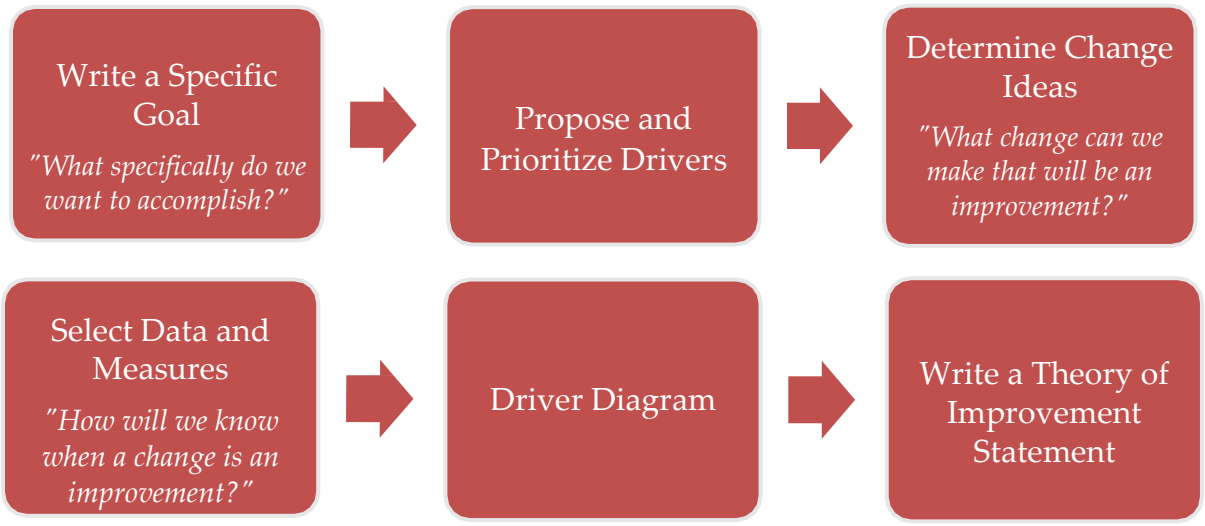
We didn't know what relevant professional development was needed as we were implementing the new standards and curriculum.	**How do you know? Supporting Data:** Interview and Surveys

Why is that?

	How do you know? Supporting Data:

Identified Root Cause: Lack of specific and relevant professional development that helps to identify the skills and practices needed to deliver high quality instruction in early mathematics.

Developing a Working Theory of Improvement



Guiding Questions
• What specifically do we want to accomplish? • What change(s) can we make that will be an improvement? • How will we know when a change is an improvement? • What will success look like? How will it be measured • What is the relationship between your change ideas and goals? • What strategic actions must we take related to these changes?
Tools
Driver Diagram Theory of Improvement Statement starter

Write Specific Goals

In this step, the team transforms their priority problem of practice and/or root cause into a goal statement that represents their desired outcome for improvement. Goals for improvement should be specific, measurable, attainable, realistic, and time bound describing:

- **what will be improved**
- **by how much**
- **by when**
- **for what/whom**

Examples:

"By June of 2019 60% of 11th and 12th grade students will enroll in at least one Flexible Pathways option each year, as measured by course enrollment data."

"By June of 2020, at least 70% of third grade students will demonstrate proficiency in the area of Problem Solving, as determined by SBAC results."

Propose and Prioritize Drivers

Drivers are the various components of the system believed to have the greatest influence on your goal. Identifying these factors can be based on research or experience, supported by local data.

- **Primary Drivers** are broad areas and components of the system that have the greatest influence on the goal, for example "communication" or "instructional practices." Generally, 2-5 primary drivers are identified for a goal.
- **Secondary Drivers** are specific practices or components within these Primary Drivers, such as "digital platform use" or "need for added rigor." Secondary drivers can relate to more than one primary driver.

Collectively, drivers represent a conceptual pathway from your goal to your chosen change ideas.

Determine Change Ideas

If you have successfully identified root causes of your problem of practice, set a SMART Goal to address the problem of practice, and identified primary and secondary drivers, proposing logical change ideas is straightforward. Change ideas are directly related to secondary drivers (one change idea can be related to more than one secondary driver) and are:

- Specific, testable, and measurable
- Actionable within a reasonable timeframe
- Likely to create change based on their underlying practices (not a program, innovation, or person)
- Likely to shift thinking or practice among those implementing
- Likely to have a measurable impact on the related driver(s)

Typically, change ideas originate from:

1) **Research Knowledge:** What does the literature say about solving this problem?
2) **Practice Knowledge:** What have other colleagues done to solve this problem?
3) **Design/Creative Thinking:** In what new ways might we address this problem?

Describe Measures

To determine the effectiveness of a change idea, it is important to identify methods to assess progress and monitor for unintended consequences along the way. Three measurement types can be used to maximize the effectiveness and efficiency of your team's continuous improvement process.

- **Outcome Measures** measure the intended result of your change idea.
  - **Leading Outcome Measures:** short-term formative assessments (ex., local assessment data, checklists, rubrics)
  - **Lagging Outcome Measures:** long-term summative assessments (ex., end of year assessment data- SBAC, NWEA MAP, VTSA, SWIS)

- **Process Measures** are used to determine whether the successful implementation of a change idea is occurring before outcomes are known. These strategies can be monitored formatively and approaches to change can be revised quickly (IHI, 2017).

  Example

  A process measure for implementing an instructional strategy might include a protocol checklist after each class, teacher survey/interview, or coaching feedback logs.

- **Balancing measures** are used to test for unintended consequences of improvements (IHI, 2017).

  Example

  A new approach to math instruction might lead to improved math outcomes, but increased planning demands could lead to an undesired shift in other teaching practices. When working to improve one process or practice, it is important to be mindful of the complex nature of your school or LEA and to monitor the impact of change ideas across the entire system.

Working Theory of Improvement- Driver Diagram

A working theory of improvement describes the structures and processes that the team believes need to be changed to meet an improvement goal, as well as, specific actions to create these changes (Provost & Bennett, 2015).

The driver diagram is a method for organizing your theory of improvement and can be completed using the information collected during the comprehensive needs assessment process. It becomes a record of learning and a roadmap for intervention. Theories can change as your team tests each change idea and learns from the experiences.

A driver diagram shows the relationship between the overall SMART goal of your improvement project, the primary drivers that directly relate to achieving the goal, the secondary drivers that are components of the primary drivers, and specific change ideas to test for each secondary driver. (IHI QI Essential Toolkit: Driver Diagram, 2017)

Driver Diagram

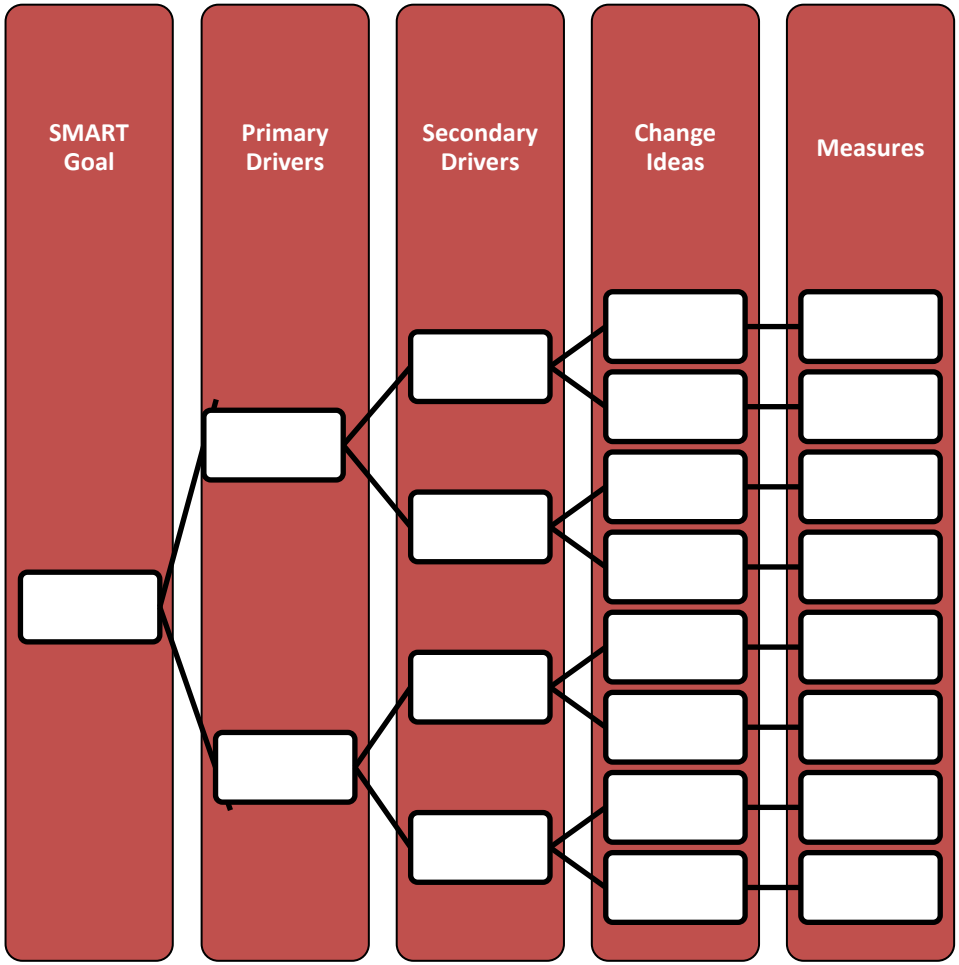
Purpose: To create a theory of improvement that guides the implementation of improvements.

Directions:

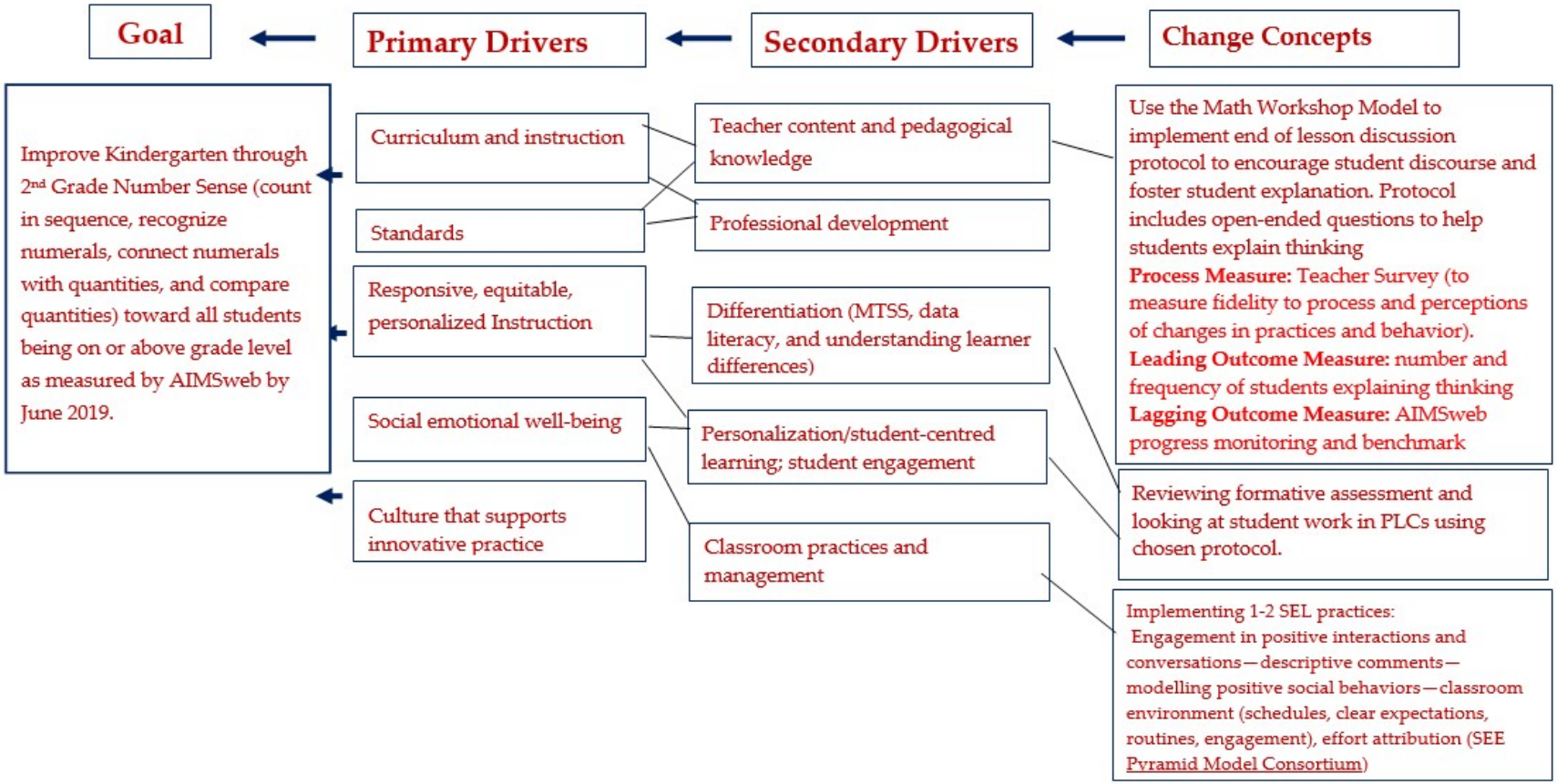
1. In the first box on the left, write the SMART goal for your improvement project (what will be improved, by how much, by when, and for what/whom).
2. In the boxes to the right of the SMART goal, list the primary drivers- the most significant influencers of your goal. Choose 2-5 to include.
3. In the boxes to the right of each primary driver, list as many secondary drivers that influence the primary driver as you can think of. Draw lines to connect each secondary driver to the primary driver (secondary drivers can connect to more than one primary driver).
4. In the boxes to the right of each secondary driver, list specific change ideas you will test to influence the secondary driver (change ideas can connect to more than one secondary driver.
5. In the boxes to the right of each change idea, list the process and outcome measures you will use to the test the effectiveness of each change idea.

Driver Diagram

/

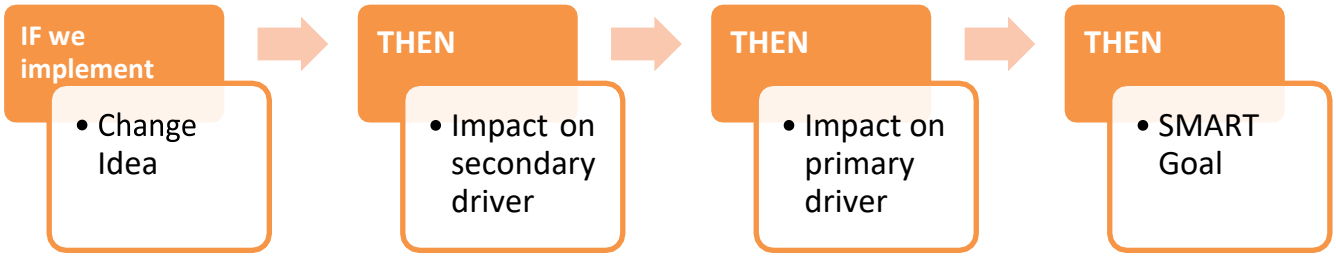


Driver Diagram- Example



Write a Theory of Action Statement

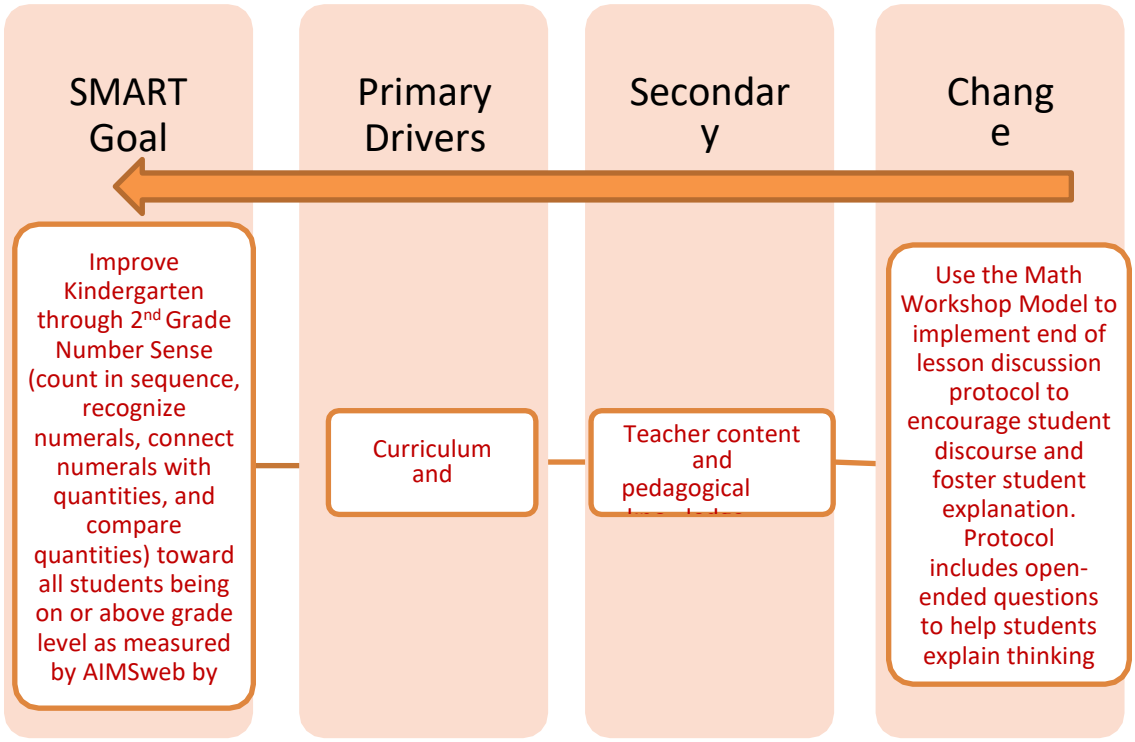
When using the driver diagram to write a theory of improvement/action statement you should work from right to left, starting with a change idea and ending with the goal, the statement should be written using an "if…then…" statement like the sentence starter below:



IF we implement (Change Idea), **THEN** (Impact on Secondary Driver), **THEN** (Impact on Primary Driver), **THEN** (SMART Goal).

Example:

"IF we use the Math Workshop Model to implement end of lesson discussion protocols that encourage student discourse and explanation, THEN it will improve teacher content and pedagogical knowledge, THEN it will increase best practices in curriculum and instruction, THEN it will improve Number Sense for students in Kindergarten through Grade 2."



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Glossary

Balancing Measure: are used to test for unintended consequences of improvements (IHI, 2017).

Broad Data Overview: A process of assembling and analyzing a variety of LEA and school data that represents a wide range of practices and outcomes to help identify specific problem(s) of practice, goals, and change ideas for improvement.

Broad Academic Area(s) of Focus: Academic areas of need that are revealed during a broad data overview that provides an initial direction for deeper data analysis.

Change Idea: Evidence based actions for improvement that are related directly to secondary drivers and are intended to have intended positive outcomes toward meeting the goal.

Collaborative Team: A group of two or more people with shared goals and perceived outcomes who meet on a scheduled or as-needed basis and fill a specific function or purpose.

Comprehensive Needs Assessment (CNA): A formal process for determining gaps between current conditions and desired outcomes. Needs assessments are used to identify goals for continuous improvement.

Comprehensive Support and Improvement (CSI): One of two identification categories for school improvement described by the Every Student Succeeds Act. Schools that meet one of the following criteria are identified for CSI:

- The 5% of Title 1 schools most in need of supports.
- High schools that graduate less than two-thirds of their students.

Continuous Improvement: An ongoing process of improving school practice, based on assessed needs and informed by data. Often this process takes the form of a Rapid Learning Cycle / Plan-Do-Study-Act Cycle.

Data-Based Decision Making: The ongoing process of analyzing and evaluating student data to inform educational decisions, including but not limited to approaches in instruction, intervention, allocation of resources, development of policy, movement within a multi-level system, and disability identification.

Driver: The various components of the system believed to have the greatest influence on your goal.

Driver Diagram: The Driver Diagram is a method for organizing your theory of improvement and can be completed using the information collected during the comprehensive needs assessment process, becoming a record of learning and a roadmap for intervention. A driver

diagram shows the relationship between the overall SMART goal of your improvement project, the primary drivers that directly relate to achieving the goal, the secondary drivers that are components of the primary drivers, and specific change ideas to test for each secondary driver. (IHI QI Essential Toolkit: Driver Diagram, 2017)

Education Quality Standards (EQS): Replaced the former School Quality Standards (SQS), in 2014. These rules are designed to ensure continuous improvement in student performance, instruction and leadership, enabling all students to attain rigorous standards in high quality programs.

Evidence-Based Intervention: An intervention for which data from scientific, rigorous research studies have demonstrated (or empirically validated) the efficacy of the intervention. Applying findings from experimental students, single-case studies, or quasi-experimental studies, and evidence-based intervention improves student learning beyond what is expected without that intervention.

Fishbone Diagram: A cause and effect diagram or graphic tool used to examine and visually display possible causes of a certain effect or problem. (IHI Open School Quality Improvement Practicum Handbook)

Five-Whys Worksheet: A brainstorming tool that can help teams identify the root cause(s) of a problem, by asking a series of "why" questions to reach the specific root cause(s).

Local Educational Agency (LEA): School Districts and Supervisory Unions

Needs Assessment Team: A group of diverse stakeholders to collaborate with during the Comprehensive Needs Assessment process. The Education Quality Standards (pg. 14) state the continuous improvement plan shall be developed with the involvement of school board members, students, teachers, administrators, parents, and other community members.

Outcome Measure: measure the intended result of your change idea.

Primary Driver: Broad academic area(s) of focus and components of the system that have the greatest influence on the goal.

Problem of Practice: A focused, learner-centered problem or hypothesis that has been identified through data collection and analysis and requires innovative solutions/interventions to reach the intended goal.

Process Measure: A measure used to determine whether the successful implementation of a change idea is occurring before outcomes are known. These strategies can be monitored formatively and approaches to change can be revised quickly (IHI, 2017).

Root Cause Analysis: a process designed to help identify what, how, and why a problem of practice occurred and inform you of how you can prevent the problem from recurring. Root causes are specific underlying causes that can reasonably be identified, are within your control to fix, and allow for recommendations and solutions (Rooney & Vanden Houvel, 2004).

Secondary Driver: Specific practices or components within identified primary drivers that influence a goal.

Shared Vision: A written statement of your team's common beliefs and goals for school and student outcomes.

SMART Goal: A goal for improvement should be specific, measurable, attainable, realistic, and time bound describing what will be improved, by how much, by when, and for what/whom.

Theory of Improvement: A plan outlining actions necessary to achieve desired changes to reach your goal. It is usually written as an "If-Then" statement. A theory of improvement describes the structures and processes that the team believes need to be changed in order to meet an improvement goal, as well as, specific actions to create these changes (Provost & Bennett, 2015).

Appendix 1: Sources of School Data

Demographic	Student Outcomes	School Process	Perceptions
• School enrollment • Attendance • Graduation rate • Dropout rate • Transience • Homelessness • Migrant status • Socio-economic level • Age • Grade • Gender • Race • Ethnicity • Language • Disability • Staff characteristics • Parent profiles • *Additional*	• State assessments • Local assessments • Curriculum-based measures • Proficiency measures • Formative measures • Grades • Portfolios • College and career readiness • School climate • Student health • Behavior data • Exclusionary discipline practices • English proficiency • *Additional*	• Instructional practices • Assessment practices • Curriculum development • Curriculum alignment • Planning practices • Resources • Technology integration • Staff evaluations • Parent involvement • Leadership strategies • Grading • Data use • Scheduling • Collaboration • Hiring practices • Staff retention • Continuous improvement • Professional learning • *Additional*	• Interviews • Focus groups • Conferences • Questionnaires • Surveys • Communication records • Meeting notes • Social media posts • Media coverage • Awards • Commendations • *Additional*

Appendix 2: Blank Worksheets
Shared Vision Worksheet

Purpose: To develop or revise a shared vision representing the common beliefs of all stakeholders.
Directions: 1) Individuals should record their personal ideas in response to the guiding questions provided. 2) Small groups should convene to develop a shared response on a separate worksheet or large piece of paper. 3) The full group should assemble to merge small group work into a single, unified shared vision statement that is written in the present tense.

Activities and Guiding Questions	Ideas and Responses
Brainstorm Core Values and Beliefs • What do we value in our students, our schools, our communities and ourselves? • What do we believe are the factors that support effective learning and positive outcomes for all?	
Brainstorm Core Purposes • What is the purpose of our work with and on behalf of students? • What are we committed to providing to our students and stakeholders?	
Brainstorm Goals • Based on our core values, beliefs and purposes, what are our goals for our students and school(s)? • What would the successful implementation of our core values, beliefs and purposes look like / what would the outcomes be for our students?	
Draft a Vision Statement • With consideration for your team's shared core values and beliefs, core purposes and common goals, write a narrative or statement(s) that captures your vision for your students and school(s).	

Continuous Improvement Plan (CIP)/Consolidated Federal Programs (CFP)

DATA INVENTORY AND ANALYSIS

What: This inventory summarizes the data collection and initial findings used to initiate an LEA or school's Continuous Improvement Planning process and to provide justification and purpose for CFP investments.

Who: All LEAs and schools must complete and submit a data inventory and analysis annually, along with their CIPs, in order to proceed with the CFP application process. CFP applications will not be reviewed in the absence of complete LEA and school level data inventories and approved CIPs.

Why: Research supported best practice specifies that Comprehensive Needs Assessments underpin effective continuous improvement planning processes; they are therefore required under the Vermont Education Quality Standards and under the federal Every Student Succeeds Act to justify CFP investments. CFP investments that are not clearly supported by findings in an LEA or school's data inventory and analysis and assessed needs will not be approved by the CFP team.

How:

- Provide detailed data summaries for each domain, including specific results of quantitative and qualitative analyses.
- Data should be paired with descriptions of key findings that represent an initial analysis of both the current state of data and trends over time.
- Data and key findings will inform Continuous Improvement Planning and will support the justification of and clear purposes for CFP investments.
- All areas should be analyzed with a focus on students most at risk of not meeting standards/historically marginalized students.
- While no specific data source is required, other than SBAC student performance data, each data type – demographic, student outcome, and school processes – must be represented in this inventory.

LEA:_____ **School (if applicable):**_____

Part I: Education Quality Standards Data

Academic Proficiency

Potential data sources (non-exhaustive)

- Performance on state and national assessments, including assessments of English language proficiency (e.g., ACCESS scores)
- IFR Report
- Local formative and summative assessment data
- Lexile/Quantile data
- Walkthrough data
- EST Team data
- Kindergarten readiness assessments
- Classroom observation protocols
- Curriculum-based measures
- College admissions test data
- Pass rates on industry-recognized credentials
- College & career readiness outcome measures
- Graduation rates
- VTmtss survey

Focus	Sources Used
Math	
English Language Arts	
Science	
English Language Proficiency	
Global Citizenship	

Summarized Data and Key Findings

Personalization

Potential Data Sources (non-exhaustive)

- IFR report
- School climate survey data (student, parent, staff)
- Walkthrough data
- Data on student voice and choice in learning
- Classroom observation protocols
- Data on Flexible Pathways offerings and participation (e.g., student surveys, curriculum and student transcript reviews)

Sources Used

Summarized Data and Key Findings

Safe and Healthy Schools

Potential Data Sources (non-exhaustive)

- Health assessments, including physical education assessment data
- Disciplinary Exclusion data
- IFR Report
- Attendance data
- Disciplinary referral data
- EST Team data
- CIRS data
- PBIS data
- VTmtss survey
- YRBS data
- SWIS data
- School climate surveys (student, parent, staff)
- Counselor referrals
- School nurse referrals
- School safety measures
- Curriculum based measures (e.g., Second Step)
- Classroom observation protocols
- Walkthrough data

Sources Used

Summarized Data and Key Findings

High Quality Staffing

Potential Data Sources (non-exhaustive)

- IFR Report
- Measures of appropriately licensed educators
- Measures of staff stability/turnover - recent school year and multiyear trends
- Teacher Evaluation data
- Data on vacancy duration
- Measures of staff satisfaction with professional development and evaluation systems (e.g., staff surveys)
- VTmtss Survey

Sources Used

Summarized Data and Key Findings

Part II: Data Supporting CFP Investments

In the sections below, please document the LEA or school's data-supported needs related to the intents of Title I, Title II and Title IV. Such needs assessments are required by statute to support the use of these funds, and CFP investments must be clearly supported by the specific data and analyses provided to be approved. It is likely that much of the data and analyses documented below will be similar to what has been articulated above.

Title I Consideration: Needs of students most at-risk to not meet challenging state standards

Potential Data Sources (non-exhaustive)

- Academic Proficiency data (disaggregated for students most at-risk)
- Safe and Healthy Schools data (disaggregated for students most at-risk)

Sources Used

Summarized Data and Key Findings

Title I Consideration: Parent and Family Engagement Needs

Potential Data Sources (non-exhaustive)

- Academic Proficiency data
- Safe and Healthy Schools data
- Parent Surveys
- Parent Attendance

Sources Used

Summarized Data and Key Findings

Title I Consideration: Needs of students experiencing homelessness

Potential Data Sources (non-exhaustive)

- Academic Proficiency data (disaggregated for students who are homeless)
- Safe and Healthy Schools data (disaggregated for students who are homeless)
- Homeless Liaison verbal reports
- Student self-reports
- Parent meeting minutes
- Barrier tracking logs
- Identification data
- Enrollment data

Sources Used

Summarized Data and Key Findings

Title I Consideration: Needs of English Learners

Potential Data Sources (non-exhaustive)

- Academic Proficiency data (disaggregated for students who are English Learners)
- Safe and Healthy Schools data (disaggregated for students who are English Learners)

Sources Used

Summarized Data and Key Findings

Title II Consideration: Professional Development Needs

Potential Data Sources (non-exhaustive)

- Academic Proficiency data
- Safe and Healthy Schools data
- Personalization data
- High-Quality Staffing data

Sources Used

Summarized Data and Key Findings

Title II Consideration: Teacher Evaluation and Feedback System Needs

Potential Data Sources (non-exhaustive)

- High-Quality Staffing data

Sources Used

Summarized Data and Key Findings

Title II Consideration: Recruiting, Hiring and Retaining Effective Teachers

Potential Data Sources (non-exhaustive)

- High-Quality Staffing data

Sources Used

Summarized Data and Key Findings

Title IV Consideration: Promoting Well-Rounded Educational Opportunities

Potential Data Sources (non-exhaustive)

- Academic Proficiency data
- Safe and Healthy Schools data
- Personalization data
- High-Quality Staffing data

Sources Used

Summarized Data and Key Findings

Title IV Consideration: Promoting Safe and Healthy Students

Potential Data Sources (non-exhaustive)

- Safe and Healthy Schools data

Sources Used

Summarized Data and Key Findings

Title IV Consideration: Promoting the Effective Use of Technology

Potential Data Sources (non-exhaustive)

- Academic Proficiency data
- Safe and Healthy Schools data
- Personalization data
- High-Quality Staffing data

Sources Used

Summarized Data and Key Findings

Problem of Practice Worksheet

Purpose: To explore data within your selected broad academic area(s) of focus, ultimately arriving at a problem (or problems) of practice.

Directions:

1) Record your broad academic area(s) of focus and sources of data to be considered.
2) As a team, make factual observations about the data presented, looking for trends, patterns, or discrepancies.
3) Infer meaning from your factual observations. What might the data be telling you?
4) Ask clarifying questions to be answered, based on your inferences, and assemble the additional data needed to answer them.
5) Repeat this activity with your additional data until you've identified a clear problem(s) of practice within your broad academic area(s) of focus.

Focus Area
Sources of Data
Factual Observations
Inferences
Clarifying Questions
Additional Data Needed
Problem of Practice

Cause and Effect Tool: Fishbone Diagram

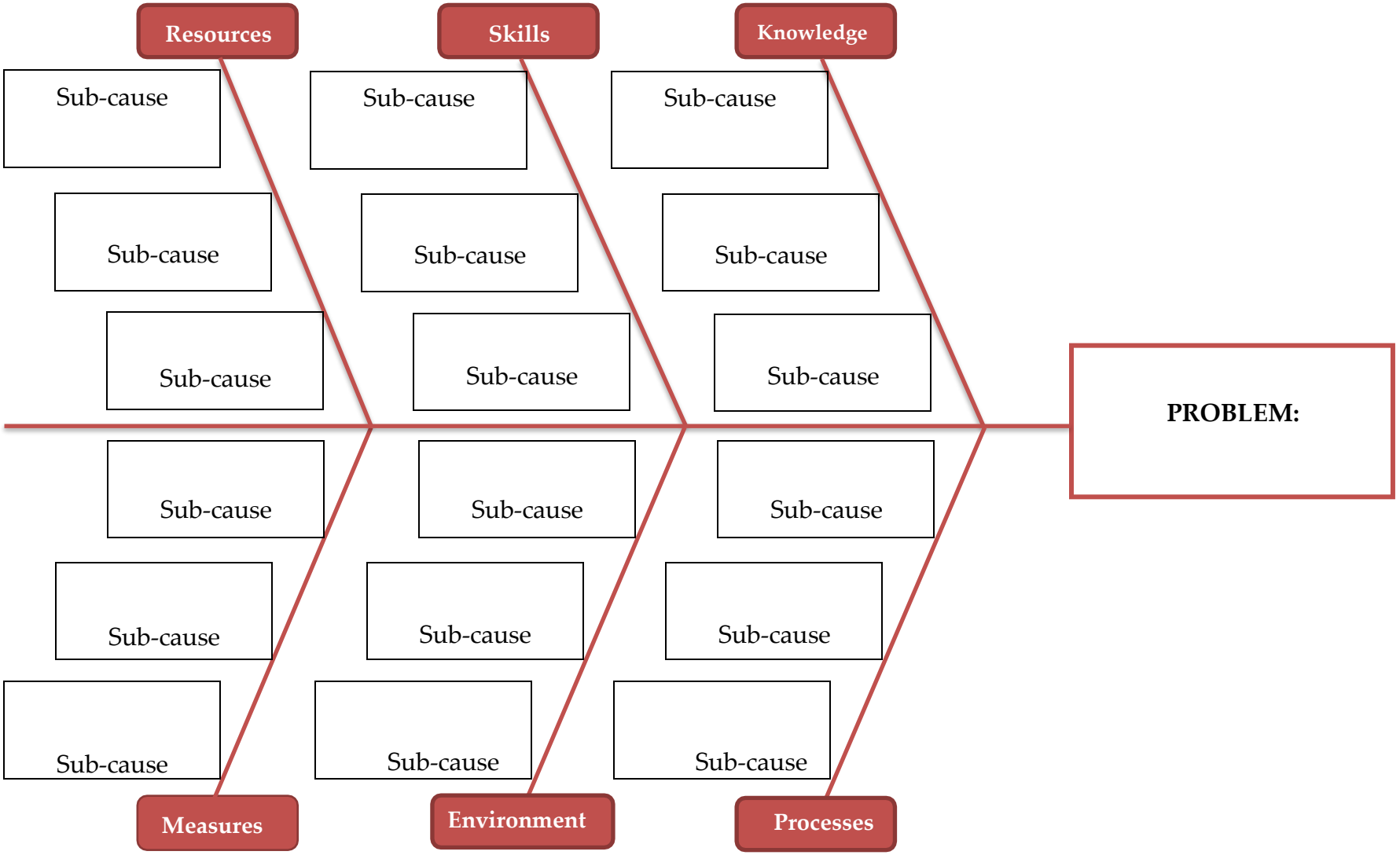
Purpose: To explore and examine the possible causes of a problem of practice.

Directions:

7. Write the problem of practice on the right-hand side of the page.
8. Decide on the categories of causes for the problem of practice. You may use the suggested causes, but keep in mind the categories used can vary depending on the problem. Be sure the categories you choose fit the problem.
9. Label the categories you have chosen in the blue boxes.
10. Brainstorm and collect a list of causes for each category you have chosen.
11. List the cause on each fishbone. If a cause has a secondary cause, draw a branch bone to show relationships among the causes.
12. Develop the causes by asking, "Why?" until you have reached a level of detail that is specific enough to be able to test a change and measure its effects.

Adapted from CCSSO and IHI Cause and Effect Tools

Cause and Effect Tool: Fishbone Diagram



The Five Whys Worksheet

Purpose: To determine an actionable root cause to a problem of practice by asking "why" multiple times.

Directions:

5) Record your identified problem of practice.
6) Start asking "why" related to the problem, keep asking why in response to each suggested cause. Use data to support your reasoning.
7) Continue asking "why" (asking five times is typical) until your team arrives at a fundamental root cause that is supported by data, within your control to address, and if the identified cause is addressed the problem will most likely go away.
8) You may discover that you have not found a plausible, evidence-supported root cause, at which point you might reconsider one or all of your "whys".

Reminders:

- You don't want to list 5 different reasons, you want to go deep on one reason.
- If your last answer was something you can't control, go back up to the previous answer on one reason.
- The final answer cannot be because of a person.

The Five Whys Worksheet

Problem of Practice:

Why is it happening?

1.	**How do you know?** **Supporting Data:**

Why is that?

2.	**How do you know?** **Supporting Data:**

Why is that?

3.	**How do you know?** **Supporting Data:**

Why is that?

4.	**How do you know?** **Supporting Data:**

Why is that?

5.	**How do you know?** **Supporting Data:**

Identified Root Cause

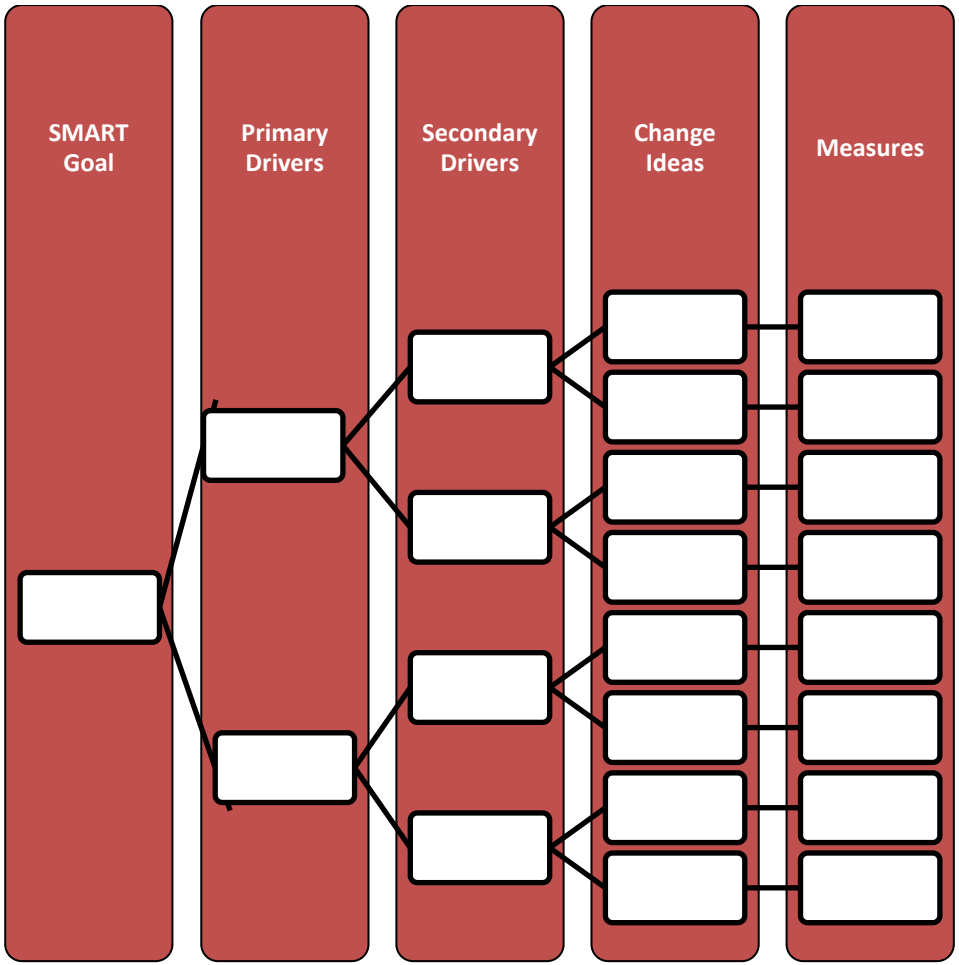
Driver Diagram

Purpose: To create a theory of improvement that guides the implementation of improvements.

Directions:

1. In the first box on the left, write the SMART goal for your improvement project (what will be improved, by how much, by when, and for what/whom).
2. In the boxes to the right of the SMART goal, list the primary drivers- the most significant influencers of your goal. Choose 2-5 to include.
3. In the boxes to the right of each primary driver, list as many secondary drivers that influence the primary driver as you can think of. Draw lines to connect each secondary driver to the primary driver (secondary drivers can connect to more than one primary driver).
4. In the boxes to the right of each secondary driver, list specific change ideas you will test to influence the secondary driver (change ideas can connect to more than one secondary driver.
5. In the boxes to the right of each change idea, list the process and outcome measures you will use to the test the effectiveness of each change idea.

Driver Diagram



Appendix 3: Comprehensive Needs Assessment Specific to Consolidated Federal Program (CFP) Context

ESSA requires that State Education Agencies (SEA) and Local Education Agencies (LEA) conduct needs assessments "for schools identified for comprehensive support and improvement (CSI)" as well as "develop and implement a school improvement plan that is based on a school-level [Needs Assessment]."

Many ESEA Programs (Title I, Part A; Title I, Part C, Title II, Part A; and Title IV, Part A) also require LEAs to conduct a comprehensive needs assessment in order to identify needs that will be addressed with ESEA funds. In order to justify the use of ESEA funds, there must be a demonstrated need identified in the comprehensive needs assessment. The comprehensive needs assessment should identify performance challenges that encompass, or make connections to, the purposes of the various ESEA programs.

It therefore makes sense to design a comprehensive needs assessment that will address various needs for information to inform planning, implementation and evaluation of impact.

LEAs are not required to use funds to address all needs identified in the assessment. Use of Title funds must focus on activities most likely to produce positive results in terms of instruction and student achievement.

Title I, Part A *Section 1112 (b)(1)* *Parent & Family Engagement Program Requirements under Section 1116*	A comprehensive needs assessment to support the use of Title I, Part A funds must identify the specific needs of those students most at risk for academic failure and support the development of a well-rounded program of instruction to help these students meet challenging State academic standards. Included in planning is how the local educational agency will support, coordinate, and integrate services provided under this part with other PreK – 12 educational programs. **Potential sources of data may include:** school improvement data, student academic data, student enrollment data, student attendance data, results of program evaluations, equity survey, academic program evaluation for efficacy, school climate, behavior, parent and family engagement and other educational performance evaluations.
Title I, Part A Schoolwide Programs *Section 114 (b)(6)* *Section 1114 (b)(2)*	Title I, Part A-served schools with a student population that is 40% or greater low-income are eligible to operate Schoolwide Title I programs. Through a Schoolwide program, a school may serve all students and may consolidate federal, state, and local education funds to address the needs of students in a flexible manner. A Schoolwide program plan must include a comprehensive needs assessment of the entire school, with particular attention to the needs of students who are failing or at risk of failing to meet the challenging State academic standards. **Potential sources of data may include:** school improvement data, student academic data, student enrollment data, student attendance data, results of program evaluations, equity survey, academic program evaluation for

	efficacy, school climate, behavior, parent and family engagement and other educational performance evaluations.
Title I, Part A School Improvement *Section 1111(d)(1)(B)*	Comprehensive support and improvement plans must be based on a school-level needs assessment, informed by a review of student performance indicators and a review of resource inequities. **Potential sources of data may include:** school improvement data, student academic data (Annual Snapshot), student enrollment data, student attendance data, results of program evaluations, equity survey, academic program evaluation for efficacy, school climate, behavior, parent and family engagement and other educational performance evaluations, Integrated Field Review report, MTSS self-assessment.
Title II, Part A *Section (b)(2)(C)* *Section 2101 (d)(3)* *Section 2102 (b)(3)* *ESEA sections 8501*	SEAs and LEAs are required to meaningfully consult with teachers, principals and other school leaders, paraprofessionals, specialized instructional support personnel, parents, community partners, and other organizations or partners with relevant and demonstrated expertise in programs and activities designed to meet the statutory purpose of Title II, Part A (Preparing, Training, and Recruiting High-Quality Teachers, Principals, and other School Leaders). In addition, coordinate the activities with other related strategies, programs or activities in the State or LEA; and provide for the equitable participation of private school teachers and other educational personnel in private schools and engage in timely and meaningful consultation with private school officials during the design and development of their Title II, Part A programs. **Potential sources of data may include:** school improvement data, student academic data, anticipated teacher supply and demand, student enrollment data, results of program evaluations, equity survey, current professional learning and impact on practice statements, and performance evaluations.
Title III, English Learners and Immigrant Students *Section 3116 (b)* *and Non-* *Regulatory* *Guidance: English* *Learners and Title* *III of ESEA, as* *amended by ESSA.*	A comprehensive needs assessment to support the use of Title III, Part A funds must identify the unique English language acquisition, cultural, and age/grade appropriate academic needs of English Learners (ELs) in order to plan, implement, and evaluate effective Language Instruction Educational Programs (LIEPs), professional learning activities, and engagement of parents, families, and communities of ELs. In developing and implementing their Title III plans, LEAs must ensure that they consult with stakeholders, including teachers, researchers, school administrators, parent and family members, community members, public or private entities, and higher education institutions. **Potential sources of data to review in planning and goal setting to address identified needs may include:** EL student demographic data (e.g., including enrollment, language, cultural and educational background, disability, graduation and dropout rates or other relevant info about English Learners, families, and communities; English language proficiency (ELP) assessment results (showing progress in meeting State ELP standards, attainment of proficiency, and exit from Title III services); standardized test scores demonstrating EL students' progress in meeting academic standards; formative measures; program and professional learning evaluations; focus groups or surveys for educators, students, and parents/communities.

Title IV, Part A Student Support and Academic Enrichment Grants *Section 4106(d)*	LEAs that receive a Title IV, Part A allocation that is $30,000 or greater, must conduct a comprehensive needs assessment every three years to support the development of well-rounded educational opportunities for all students, improvements to school climate and conditions for student success, and the effective use of technology in teaching and learning. **Potential sources of data may include:** school improvement data, student academic data, student enrollment data, results of program evaluations, equity survey, current professional learning, impact on practice statements, performance evaluations, results from trauma informed and PBIS school outcome reports or data, IDEA data, and results of School Climate Survey.
Title I Part A, VII-B, IX and X for Students Experiencing Homelessness *Education for Homeless Children and Youth Program Non-Regulatory Guidance Title VII-B of the McKinney-Vento Homeless Assistance Act, as amended by ESSA.* *Section 723(c) (2)* *Section 722(g)(A)*	Under Vermont statute, all LEAs who receive Title I, Part A funds must reserve at least $500 to meet the specific needs of students PreK-12 who are experiencing homelessness in accessing equitable educational opportunities. Determinations of the specific needs of this population must be included in a comprehensive needs assessment to support Title I, Part A spending. An LEA application for a McKinney-Vento sub-grant must include an assessment of the educational and related needs of homeless children and youth, ensuring that students experiencing homelessness in grades PreK– 12 are identified and that these children and their families receive all services for which they are eligible. LEA needs assessments must include all identified McKinney-Vento sub-groups, as appropriate, including: migrant, Native American, Neglected and Delinquent, Special Education and Unaccompanied Youth. LEA needs assessment must include data that ensures all McKinney-Vento Educational programs do not segregate or stigmatize eligible families, students or unaccompanied youth. **Potential sources of data may include:** school improvement data, student academic data, student enrollment data, end-of-the-year homeless student census report, Act 166 data, results of program evaluations, equity survey, input from community partners, Housing and Urban Development Annual Homeless Report for Vermont, data from The Vermont Governor's Council on Ending Homelessness and Vermont Coalition for Runaway and Homeless Youth data.

Adapted from Every Student Succeeds Act: Guiding LEA Needs Assessment and Plan Development to Consider Early Learning (Mid-Atlantic Comprehensive Center).

Appendix 4: Continuous Improvement Plan Template with Guiding Text

Phase 1: Assess and Innovate
Collaborative Stakeholders Represented: *The plan shall be developed with the involvement of school board members, students, teachers, administrators, parents and other community members (EQS p. 14)*
Shared Vision: *A shared vision is a written statement of your team's common beliefs and goals for school and student outcomes. If your school or district already has a shared vision, this step might involve introducing it to your stakeholders, checking for agreement, and possibly making minor revisions. If a shared vision doesn't exist, beginning a comprehensive needs assessment process is a good reason to write one. The shared vision can then serve to steer your needs assessment towards those priorities. In developing or strengthening school vision, teachers, families and community members collectively agree on their desires for students and community. It is a written statement of your team's common beliefs, values, and goals for school and student outcomes***.**
Broad Academic Area(s) of Focus Based on Data Review: *Describe the broad academic areas of focus, based on the data inventory and analysis. The following types of data should be included, analyzed, and summarized in the data inventory and analysis: demographic, student outcomes, school process data. Present an analysis and summary of the focus areas.*
Identified Priority Problems/Problems of Practice: *Based on the identified broad academic areas of focus, describe the prioritized problems for which you intend to seek innovative solutions/interventions. Problems of practice are directly connected to the data inventory and analysis. *Ensure that problems of practice adhere to Title I School-wide Program Requirements (if applicable). Check box if this is School-wide plan___*
Root Cause Analysis Results: *Upload completed cause and effect diagram (i.e., fishbone or five whys template) or narrative to display or describe the results of your root cause analysis for prioritized problems; include the major factors contributing to each problem. Please use the Comprehensive Needs Assessment Toolkit to help you conduct a thorough causal analysis for each problem of practice.*
Theory of Improvement/Action: *Based on data analysis, needs assessment results, and supporting research, define your theory of improvement. Upload driver diagram or narrative to include goal, drivers, and change ideas, and measures. Ensure that each change idea is supported by evidence (level 1-3 if you plan to use Title I 7% set aside school improvement funds for the change).*

Plan for Improvement with Guiding Text

What do we want to accomplish? SMART Goal(s)	*Please describe at least 1 Academic Proficiency goal and no more than 3 priority goals total, related to your problems of practice and underlying causes. The safe, healthy schools domain must be represented either as a strategy/change idea. Plan will be returned if it does not include an Academic Proficiency goal and safe healthy schools change idea. These goals should be specific, measurable, attainable, realistic, time-bound and answer the following questions: What are you trying to accomplish? For whom? By how much? By when? Ensure goals are congruent with eligibility status requirements.* *Connection to EQS: The plan shall include indicators provided by the Vermont Agency of Education as well as additional indicators determined locally (e.g., Annual Snapshot). These indicators will identify student performance data obtained from state and local assessments and other information… These goals must include: objectives for improved student learning; educational strategies and activities specifically designed to achieve these goals, including professional learning of administrative and instructional staff; strategies and supports to ensure the school maintains a safe, orderly, civil and positive learning environment which is free from harassment, hazing and bullying (EQS p. 14)* **Ensure that goals adhere to Title I Schoolwide Program Requirements (if applicable) Schoolwide Plan Checklist*
What change(s) can we make that will result in improvement?	*Please list the broad changes/strategies you intend to explore, related to your goals and problems of practice. You may further operationalize/specify **some** of these ideas once you decide which changes you plan to test using Plan-Do-Study-Act (PDSA) cycles of learning.* *The PDSA process is intended for testing small scale changes to build confidence in their efficacy prior to full implementation and scale (**NOT all changes warrant a PDSA and tests should be limited to no more than a few cycles at a time, related to a specific change idea**). For those change ideas you wish to test at this level, please use the PDSA Worksheet. You can monitor your progress toward goals in the **Summary of Results** section of the CIP (see below). **There is NO expectation regarding a number of PDSAs to complete or due dates for completion, as it is determined by local data and context.***

How will we know our change(s) resulted in improvements?	*What are the expected results? In specific terms, describe the measures you are using to determine progress. These may include a variety of quantitative and qualitative measurement instruments, including (but not limited to) surveys, observation protocols, interview protocols, progress monitoring tools, benchmark or interim assessments, and performance/outcome assessments. Measures must be valid, measuring what they intend to measure. Include process and outcome measures, and specify measurement instrument tools.*
Funding Source(s)	*Please indicate which funding sources you are using for each of your change ideas.*

Summary of Results

***Goal:** Please list the goals you have previously been working toward.*	***Related Change Ideas:** Please list the change ideas related to those goals.*	***Measures:** Please list the ways in which you measured improvement (PDSA test/pilot cycles, program evaluation, etc.)*	**Results/Progress:** *Please describe your progress so far (upload relevant documents as needed).*

Phase 2: Test the Change Idea: Plan-Do-Study-Act Improvement Cycles

From your broad selection of change ideas listed in your CIP, select those for which you intend to explore deeply through PDSA test cycles. Describe in specific terms, well-defined change ideas you plan to test with rapid PDSA cycles. These changes must be at a fine grain size so that they can be easily tested and measured. Use as many cycles as needed to learn, revise, and ensure the change is an improvement ready for full implementation, spread and scale (Attach/upload PDSA worksheets for each cycle of each change idea). Once you have developed confidence (based on strong data) in the change idea, you can move on to the implementation phase.

Attach PDSA Worksheet: ***this submission is required only for schools eligible for comprehensive supports and SIG 1003g supports).***

Use the PDSA Worksheet to test changes applying iterative PDSA cycles of improvement for each change idea. Describe the changes you made during your improvement cycles. Use as many cycles as needed to ensure the change is an improvement ready for implementation.

Phase 3: Implement and Spread

This phase involves making plans and decisions for full implementation and for spreading the change(s) across classrooms and/or schools. Explain how you will implement, spread, and scale the successful practices and processes tested during this improvement cycle; include personnel, financial resources, scheduling, policy, practice, potential organizational/structural modifications, etc.

Phase 4: Sustain

This phase involves planning and making decisions about how resources will be allocated and how your organization will sustain the implemented changes.

Continuous Improvement Plan (CIP)

SU/SD/LEA: _____

School:_____

Date: _____

PHASE 1: –Assess and Innovate Links to: Education Quality and Continuous Improvement Framework: Research, Resources and Support for Continuous Improvement Planning and the Vermont Comprehensive Needs Assessment Toolkit
Collaborative Stakeholders Represented: *List the names and roles of diverse stakeholders involved in developing the plan (school board member(s), students, parents, teachers, administrators, and community members).*
Shared Vision: *Write a statement that captures the vision for your students and schools***;** *ensure a school specific vision, in relation to the SU vision. Explain how you regularly review this vision*
Broad Academic Area(s) of Focus Based on Data Inventory and Analysis: *Describe the broad academic areas of focus. The following types of data should be included, analyzed, and summarized in the data inventory and analysis (needs to be posted and linked): demographic, student outcomes, and school process data. Present the analysis and summary of the focus areas.* *Is this a Schoolwide Plan YES ___NO ___* *IF YES, then list which funds you are using from Title I, II, IV*
Identified Priority Problems of Practice: *Based on the identified broad areas of focus, describe the prioritized problems for which you intend to seek innovative solutions/interventions. Problems of practice are directly connected to data inventory and analysis *Ensure that problems of practice adhere to Title I School-wide Program Requirements (if applicable)*

Root Cause Analysis: *Upload completed cause and effect diagram (i.e., fishbone or five whys template) or narrative to display the results of your root cause analysis for prioritized problems; include the major factors contributing to each problem. Please use the Comprehensive Needs Assessment Toolkit to help you conduct a thorough causal analysis for each problem of practice.*
Theory of Improvement/Action: *Based on data analysis, needs assessment results, and supporting research, define your theory of improvement. Upload driver diagram or narrative to include goal, drivers, and change ideas, and measures. Ensure that each change idea is supported by evidence (level 1-3 if you plan to use Title I 7% set aside school improvement funds for the change).*

Prioritized Goals	**Explanation**
Goal #1: Academic Proficiency **What do we want to accomplish? SMART Goal(s)**	

What change(s) can we make that will result in improvement?	
How will we know our change(s) resulted in improvements?	

Prioritized Goals	Explanation
Goal #2: **What do we want to accomplish?** **SMART Goal(s)**	

What change(s) can we make that will result in improvement?	
How will we know our change(s) resulted in improvements?	

Prioritized Goals	Explanation
Goal #3: **What do we want to accomplish?** **SMART Goal(s)**	

What change(s) can we make that will result in improvement?	
How will we know our change(s) resulted in improvements?	