**Learning Bites:
Getting Ready for
Continuous Improvement**

MICIP
MICHIGAN INTEGRATED CONTINUOUS
IMPROVEMENT PROCESS
TRAINING

Data Analysis Process

The MICIP Data Analysis Process begins with identifying data that the district's Continuous Improvement Team will consider as it explores assets and needs and concludes with identifying a challenge or opportunity for growth statement. It is important that the team considers data from all three main categories - academic, non- academic, and systems - as well as from the four types of data, including demographic, student achievement/outcome, perception, and process.

But before it engages in the actual process, there are a couple of questions a team should answer:

1. Do we have a positive data culture? Ensure that participants feel safe discussing data and challenging traditional explanations as well as suggesting innovative solutions.

2. Do we have a common data protocol/process? Having a protocol/process to guide the Continuous Improvement Team's conversation is critical. Effective protocols and processes should do the following:

    - Engage participants with sorting, prioritizing, and reframing questions

    - Help participants make connections between current and previous areas of inquiry

    - Encourage discussion about possible ways to learn more

    - Prompt participants to suggest possible solutions

Most data protocols have elements in common. Probably one of the best-known protocols is the Data-Driven Dialogue by Bruce Wellman and Laura Lipton. This protocol involves three phases: **Activating and Engaging**, **Exploring and Discovering**, and **Organizing and Integrating**.

- During the Activating and Engaging phase that takes place prior to actual interaction with the data, participants surface prior knowledge and assumptions and make predictions about what they think the data will say. They make statements beginning with starters such as:
    - I assume…
    - I predict…
    - I wonder…
- During the Exploring and Discovering phase that takes place while looking at the data, participants make observations that can be validated using starters such as:
    - I observe…
    - A pattern/trend that I notice…
    - I'm surprised that I see…
- During the Organizing and Integrating phase, participants make meaning of the data and suggest theories of causation and next steps using phrases such a:
    - I believe the data suggests_____ because…
    - Additional data that would help verify my explanations is…
    - I think a solution or response would be…
    - Additional data that would guide implementation of a solution would be…

Whether you use your own protocol or one developed by someone else, it is critical that you have one, and that all members of the Continuous Improvement Team understand how to use it.

Once you have a balanced data set as well as defined protocols and processes, you can use them to analyze students' needs or strengths. Review what you are currently doing to address those needs or leverage strengths, including systems that are or are not in place. Examine the gap between current needs or strengths and where you want them to be

and create a data analysis summary that identifies the needs or strengths you want to analyze more deeply as part of Root Cause Analysis.

Root Cause Analysis

The Data Story Summary identifies the "what" of the asset or need; the root cause analysis process helps identify the "why." The 5 Whys and Fishbone tools are built into MICIP to help your team identify the root cause. Districts can also use their own tool.

There is no right or wrong answer regarding which tool is the "right" tool to use for root cause analysis; in part, it depends on what you are trying to do. Frequently, the Fishbone and the 5 Whys are used together.

Starting with the initial data summary statement, the Fishbone is often used to brainstorm and organize a variety of potential contributing causes into categories/sub-categories.

The team then determines which category(s) they want to investigate more deeply, and the 5 Whys is used to conduct the investigation and drill down to the root cause in one or more of the categories. The group then decides which of the root causes to address in the challenge statement.

The tools can also be used in reverse, with the 5 Whys being used to drill down to a root cause and the Fishbone being used to identify various causes-and-effects for that root cause. Research recommends starting with the Fishbone and moving to the 5 Whys.