Considerations to Building a Dataset

For more information visit: www.michigan.gov/mde-micip

Framing the Need for Data

Example: A district may have a dialogue like this one which sets the stage to build a new dataset.

- Our previous goal was to fully implement tier 1 of school-wide PBIS in at least 80% of schools within the district as measured by a score of 70% or higher on the tier 1 portion of the Tiered Fidelity Inventory.

  - We met this goal as of spring 2019 with 12 of our 15 schools meeting or exceeding the 70% threshold.
  - We will maintain this goal.

- Our second goal was that at least 50% of our schools would have office discipline referral (ODRs) rates at or below the national median

  - We did not accomplish that goal. As of spring 2019, we had only 3 of our 15 schools (20%) with ODRs below the national median. We need to keep this as a goal and reset our goal date for spring 2020.

Questions to Consider

Datasets should be built based on what we want to know (and are curious about). To assist districts in building datasets, Victoria Bernhardt recommends districts consider the following seven questions to help focus on the early stages of data-driven decision making.

1. What is the purpose of the school or district?

2. What do you expect students to know and be able to do by the time they leave school? (Standards)

3. What do you expect students to know and be able to do by the end of each year? (Benchmarks)

4. How well will students be able to do what they want to do with the knowledge and skills they acquire by the time they leave school? (Performance)

5. Do you know why you are getting the results you get?

6. What would your school and educational processes look like if your school were achieving its purpose, goals, and expectations for student learning?

7. How do you want to use the data you will gather?

Keeping a District Focus

With MICIP taking a focus at the district level, it is important that the datasets focus on data available within the district whenever possible so that the district can identify patterns of strength and areas for improvement across schools in a systematic and efficient manner. This focus on district-level data analysis, in some way, is new. Some districts are way too large to take a school- by-school approach to data analysis and need to be able to look at data systematically and efficiently across schools.

Bringing in Different Data Sources

There are three main categories of data in the MICIP platform: academic, non-academic and systems data. When looking at data from one category, there should be consideration given to the other two categories. It is a good idea to do a data inventory of what data is being collected across the three categories. Are there any duplications? Is there a need for additional assessments in some categories? How are data collected, stored, and analyzed?

It is especially critical that any dataset include data that examines the systems needed to address academic or non-academic needs. Systems data is an important component of every dataset, and if a district does not have systems data, selecting and using a systems assessment should become a priority for the district. We have made the need for analyzing systems a part of our MICIP theory of action.

As the district team creates datasets, keep in mind the following as it relates to academic, non-academic, and systems data:

- Historical Data – Data that represents a specific point in time from the past. e.g SAT Math scores from April 2017.

- Longitudinal (Trend) Data – To support districts in identifying patterns of growth and gaps, longitudinal data, when available, should be used. Unless the framing question warrants longer data collection time frames, 3-5 years should be sufficient.

- Current Data – In addition to longitudinal data, it is important that datasets include the most current and relevant information possible to ensure the data stories created paint an accurate and "real time" picture of a district's growth and challenges.

Other Considerations

- The intent of a dataset template is to support and encourage best practices and streamline the efforts of local improvement teams while allowing for modification to meet local needs.

- There are no limits to the number of data objects in a dataset. With that said, too few or too many may not provide a clear picture.

- Types of data
  - Demographic
  - Student Achievement/Outcome
  - Perception
  - Process (Systems)

- Naming conventions. There are three opportunities for naming. First is the Data Set Template. The title should focus on the desired outcome. This outcome could be based on area of need or strength. Second is the data object. Here the title should include a title of the data object, the type of data, and a timeframe. Third is tabs. Naming tabs should include the category and subcategory as you identify your template. For further information, please refer to the Data Set Template Naming Convention One-Pager.

- Included in the data set template is the ability to create a prompt for districts to use when considering different data objects for their data story. Here is an opportunity for including rationale why a data object is important to the dataset. For further information, please refer to the data set template examples.

- Please include in your data objects from MiSchoolData or MiDataHub any applied filters, such as specific populations, gender, special education, low SES, etc.

Completing Template and Submission Process

- Template forms are located on the MICIP website.

- To submit forms, please send the completed spreadsheet to Renie Araoz (Araozr@michigan.gov). You will receive an email indicating your submission.

- All draft templates are reviewed for completeness, clarity, and check for duplication. Creator will receive feedback if there is further edits are needed before being uploaded into the MICIP Platform.

- A weekly list on uploaded data set templates will be maintained and updated every Monday starting on May 17, 2021.

Vocabulary

- Data Object: A single data report

- Dataset: A group of data objects used to conduct data analysis

- Dataset Summary: A brief narrative summary that describes a dataset

- Data Story: A summary based on the analysis of a dataset, an initiative inventory, and a gap analysis

- Dataset Template: A pre-built dataset comprises commonly available data objects, focused on a common area of need, and has been recommended by professionals with expertise in a particular educational domain.