How do we effectively use data to identify priority concerns?

2. Analyze the Evidence

Once the data has been gathered, it is time for the team to more closely examine the data to determine strengths, needs and opportunities for growth. As the team examines the data, it is critical to begin with the observable facts. Then the team can use these facts to identify trends and unexpected results. When layering the demographic data, perception data, student learning data, and process data trends, questions may arise that call for additional data or investigation. When disaggregating the data (by race, gender, language, students with disabilities, grade level, course level, free/reduced meals) and examining it across different data sets, the team will have opportunities to identify the priority concerns, determine the relevant factors that impact outcomes and data, and use this information to determine root causes of challenges.

The team uses the **Review of Data** to:

- Compare and contrast data by subgroups and across the four sources of data to ensure representation of all student groups with a focus on equity for all
- Look for emerging themes or trends
- Identify surprises or outliers
- Look for patterns
- Look for inconsistencies

Protocols for Analyzing Evidence

Protocols or guiding questions may help your team more closely examine the data to identify priorities and needs for your learning community. As your team begins to identify challenges, review the data to ensure it supports the claim of the challenge. Remember evidence that is collected across all four sources of data give the most complete picture and has the opportunity, when addressed, to have the highest impact on students.

Five Steps to Examine Data[2]

1. What parts of the data catch your attention? Only tell the facts, avoid drawing conclusions and causation. (2 minutes to write and reflect individually, 6 minutes to reflect as a group)
2. What parts of the data catch your attention? Only tell the facts, avoid drawing conclusions and causation. (2 minutes to write and reflect individually, 6 minutes to reflect as a group)
3. What good news is there to celebrate? (5 minutes to identify strengths)
4. What are the problems of practice suggested by the data? (3 minutes to write and reflect individually, 7 minutes to reflect as a team)
5. What are the key conclusions?

Additional Questions for Examining Evidence

These questions are designed to identify observable facts about the data. Refrain from making inferences and focus on identifying trends and unexpected results.

- How does the data compare to ESSA Milestone Targets? (found at EdSight, select *Next Generation Accountability and ESSA Milestones)*
- How do data sets (or populations) compare to each other? (such as comparing one grade to another, comparing to benchmarks, or comparing school vs. district vs. state) What does this tell us about equity and how we are meeting the needs of all student groups?
- What are the commonalities among a given data set (or population)? (Such as among students who are scoring below standard, or those who are achieving)
- What patterns or similarities are evident across different data sets? (Such as comparing local formative assessment data with state assessments, or comparing student achievement with teacher attendance)
- What inconsistencies or discrepancies (if any) are evident?
- What is not represented in the data?
- What questions do the data raise?
- Does this data reflect a concern for a significant number of students or a significant number of students in a sub-group?
- Does this data align to our strategic plan or identified school-priorities?

The following questions are designed for the team to identify trends and brainstorm possible causes of the trends.

- How has the data changed over time?
- What clues help explain why a certain population is meeting or missing targets?
- What areas in the data stand out as needing further explanation?
- What patterns or themes do we see in our observations?
- Which of these observations are most relevant and important to our inquiry?
- Based on our observations, what do we know now?

The following questions are designed for the team to consider prior programs, initiatives, and interventions

2 Adapted from *Protocols for Examining Data,* developed from National School Reform Faculty Materials. Retrieved from https://achieve.lausd.net/cms/lib/CA01000043/Centricity/domain/244/secondary%20sbac%20resources/Protocol%20for%20Examining%20Data.pdf

and the existing conditions that impacted the level of success.[3]

- Did the school fully implement its prior strategies and interventions as planned?
- What implementation challenges and barriers did the school encounter?
- What were the identified strengths and weaknesses of each step during the strategies/interventions implementation?
- Are the frequency and duration of interventions sufficient for specified subgroups and low-performing students?
- Is the scheduling of interventions sufficient to meet the needs of specified subgroups and low-performing students?
- What measures were used to determine if the strategies/interventions were effective?
- How and how often was the progress of students who benefited from the strategies and interventions measured?
- Were the results different for specific subgroups?

The team may find an Initiative Inventory helpful in evaluating the evidence of implementation, impact, and costs.

Decide or Delve

Finally, the team looks at the data and the story it is telling to determine if they have the data needed to make decisions or the team determines the need to delve even further into the data to understand the challenges of the school or district. Questions asked to find trends and outliners may also produce further questions that require additional data.

Gathering and analyzing evidence is cyclical. It is an ongoing activity to inform the cycle of continuous improvement.

3 Adapted from *Data Review Protocols, 2015,* Hanover Research. Retrieved from https://www.gssaweb.org/wp-content/uploads/2015/04/Data-Review-Protocol-1.pdf and *New Jersey Annual School Planning Process Guiding Questions for Data Analysis.* Retrieved from https://www.state.nj.us/education/ESSA/asp/resources/GuidingQuestions.pdf.