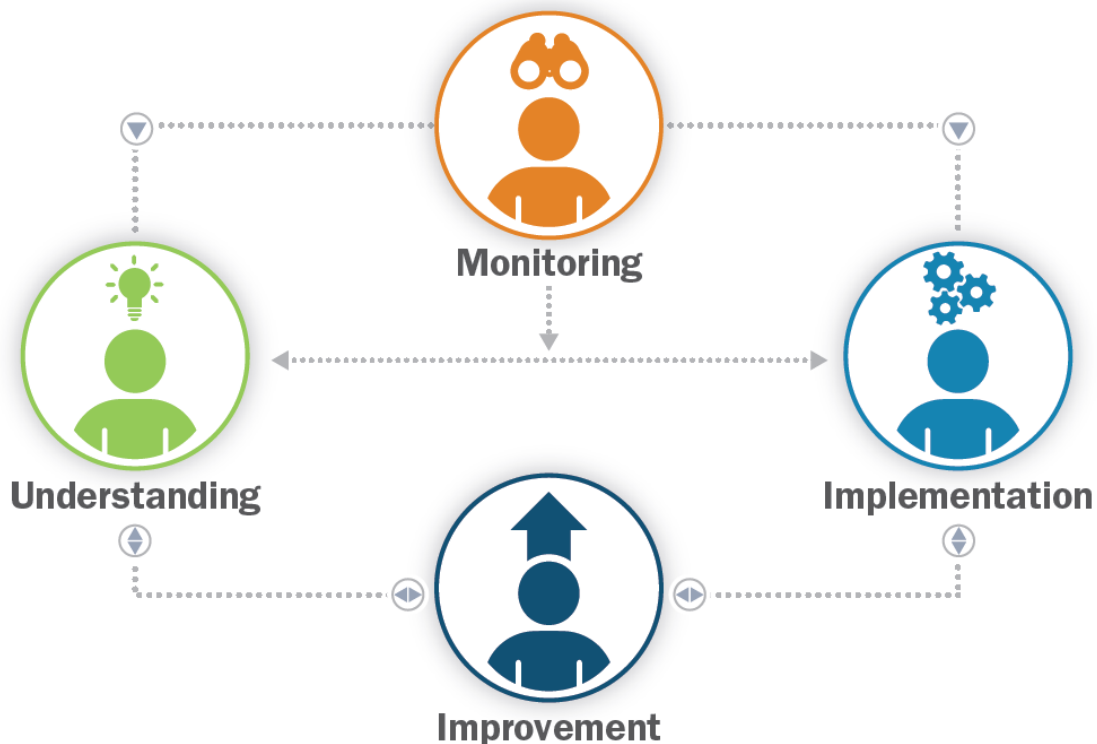


# Handout 1: Data Diagnostic Model

The Data Diagnostic Model used for this training includes four components of data quality: Understanding, Implementing, Monitoring, and Improving. This four-component process serves as a tool for examining the “health” or quality of your data system. It is important to consider these iterative phases to identify the following: behaviors that will lead to improved outcomes and why they will produce intended results; how to practice those behaviors; how and when to evaluate the effectiveness and impact of those behaviors; and how to sustain them over time to achieve your goals.

The goal of high-quality National Reporting System (NRS) data is achieved by *understanding* the purpose of data collection, the information that should be entered into the system, and how to report it; *conducting* or *implementing* the steps that will apply this understanding, such as a data flow process; and *monitoring* the approach to identify effective processes, assess accuracy, and determine whether the system should be modified. By focusing on these components, states can continually *improve* processes and data quality to serve students and to meet local, state, and federal requirements.

As you participate in this training, consider the status of your state as it relates to each of the components of the Data Diagnostic Model described on the next page. Space is provided to record your thoughts as you hear information relevant to your state from the Office of Career, Technical, and Adult Education; the NRS team; and your colleagues.



## Understanding

Understanding data system inputs is essential to producing quality data. It is critical that all those involved in data collection, entry, reporting, and analysis know what information should be collected, the purpose it serves, how to enter it into the data system, and how to report it. Knowing how student and program performance are measured allows local programs to capture required information through intake and follow-up procedures. When state staff understand the meaning and parameters of the data collected, they can track program performance and report it accurately. Your state constantly makes efforts—by fielding questions and offering guidance, providing training and resources, and communicating on a regular basis—to maintain and increase understanding, revisiting concepts and introducing new ones as policies develop and change.

### Notes:

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## Implementation

When the various players in state data management understand the purpose, data points, and requirements, they can apply best practices to achieve high data quality. A structured data quality approach includes purposeful and measured processes for conducting data collection, data entry, and data verification. This approach hinges on both sound physical data collection mechanisms and data flow processes. This includes collection schedules, intake and exit procedures, and methods for recording gains and follow-up measures. Your state is continually in implementation mode, applying knowledge of policies and procedures and fine-tuning processes to achieve high-quality data.

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## Monitoring

Monitoring data management on a regular basis allows your state to increase accountability and improve performance. Your state uses various methods to accomplish effective data system implementation by checking procedures, verifying accuracy, and assessing program performance. Strategies such as desk reviews, on-site reviews, document reviews, environmental scans, observations, interviews, and program self-assessment all uncover strengths and areas for improvement within the system. After identifying successful processes and glitches in the system, you can make decisions to maintain or modify operations.

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## Improvement

The three parts of the diagnostic model described above take place in concert and guide the improvement process. As you determine that (a) people know what is needed and how to achieve high-quality data, (b) the right people are involved and are following the procedures deemed necessary, and (c) methods are used to reveal effective components, as well as breakdowns in the system, then you can make decisions to continue or modify data procedures. In assessing these areas, you may identify information gaps, misunderstandings, communication issues, staff training needs, equipment failures, lack of incentives to perform, and other problems that necessitate interventions. Examining staff understanding, data systems implementation, and performing monitoring to identify issues allows you to make informed decisions on how to improve the system and achieve higher data quality.

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