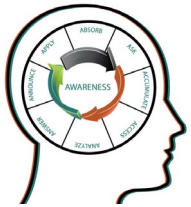

Develop Your Data Mindset

Module 1 - Introduction to Course and Theme, Need for Data Training, Data Types, and Methods of Inquiry
Part 1 - Welcome to Develop Your Data Mindset

By Nathan Anderson, Amy Ova, Wendy Oliver, and Derrick Greer

This material is based upon work supported by the National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, through Grant R372A150042 to North Dakota Department of Public Instruction. The opinions expressed are those of the authors and do not represent the views of the National Center, Institute, or the U.S. Department of Education.

Course Learning Goals

- Improve educator competence in using data
- Improve educator actions with data
- Improve educator attitudes toward data

SLDS Data Use Standards in the Course

- B.3.D Prioritization: Prioritizes time to analyze and use data
- K.1.A Question Formation: Knows which questions can be answered with data and how to identify the nature and extent of the data needed to answer questions
- K.1.C Types of Data: Knows that data come in two main forms—QUANTITATIVE and QUALITATIVE—and that, within these forms, there are other categories
- K.1.D Types of Measures: Knows various types and purposes of ASSESSMENTS and other MEASURES
- K.1.E Data Metric: Knows that MEASURES can be broken down into data metrics, which are calculated for ANALYSIS and monitored for changes
- K.1.F Data Sources: Knows different types of data sources and the benefits and limitations of using each
- K.2.C Data Collection: Knows that DATA COLLECTION can be performed using different methods and at different points in time
- K.2.D Data Context: Knows the circumstances and purposes for which data are collected

SLDS Data Use Standards in the Course cont.

- K.3.B Data Limitations: Knows that data have limitations and that these limitations affect the interpretation and usefulness of data
- S.1.A Goals and Questions: Identifies BASELINE measure(s) and poses questions that can be answered with data
- S.1.B Alignment: Aligns question(s), type of data needed, and measurement tools (e.g., ASSESSMENTS, surveys, etc.) with goals and objectives
- S.1.D Data Meaning: Identifies different types of data and can explain specific DATA DEFINITIONS and how data are collected and formatted
- S.2.A Data Discovery and Data Acquisition: Identifies and locates appropriate data sources and can access the data from various sources (e.g., classroom, school, district, state sources) for DATA ACQUISITION
- S.2.B Critical Evaluation: Knows how to perform CRITICAL EVALUATION on data sources for reputability, quality (including validity and reliability), relevancy, and ability to address the identified need
- S.3.A Facilitation: Collects data in ways that ensure VALID, RELIABLE data and that minimize BIAS

SLDS Data Use Standards in the Course cont.

- S.3.B Technology: Uses appropriate technologies to collect, access, and store data
- S.3.C Multiple Measures: Uses MULTIPLE MEASURES (e.g., FORMATIVE, SUMMATIVE, GROWTH MEASURES, etc.), appropriately
- S.4.C Aligned Analysis: Using appropriate technologies, conducts ANALYSIS suitable for the type of data collected, the VARIABLES identified, and the questions or hypotheses posed
- S.5.C Patterns: Identifies patterns, TRENDS, and gaps in data and suggests reasons for their occurrence
- S.6.B Explanation: Explains different data representations and distinguishing features (e.g., histograms, bar charts, contingency tables)
- S.6.C Multiple Audiences: Communicates effectively about data, interprets FINDINGS, and explains progress toward goals to a variety of constituent groups (e.g., students, families, and colleagues)
- S.7.A Strategies: Identifies appropriate strategies grounded in evidence to address the needs and goals identified during data ANALYSIS

Welcome

Too often when educators hear the term data-driven instruction, they cringe because they immediately think of heightened accountability for educators and students and...standardized tests.

The purpose of this course is to equip you with knowledge and skills to make evidence-based decisions in school settings so you can take evidence-based actions such as personalizing instruction based on student strengths and weaknesses. This is being data-informed.

Welcome

Our goal is NOT to provide the skills for you to distribute worksheets based on data or for you to use data to motivate or segregate student learning. Rather our goal is to help you develop a data mindset and skill set to utilize data for a variety of educational purposes. A **data mindset** is a transferable set of knowledge, skills, and behaviors representing one's capacity to navigate a comprehensive data use process, which includes identifying a knowledge gap, filling the gap through data analysis, and making decisions based on analysis findings. More specifically, a data mindset comprises the knowledge, skills, and behaviors necessary to navigate a process of identifying a need to know more about something; formulating a question that, if answered, can help reveal the missing knowledge; collecting data required to answer the question; retrieving the collected data; analyzing the retrieved data; responding to the question based on analysis of data; communicating analysis findings to applicable stakeholders; and making decisions based on the findings. A+ Inquiry is a conceptual framework representing key stages of a disciplined inquiry process that are addressed by someone with a competent data mindset.

Welcome

Keep in mind this course does not comprehensively cover all purposes for data use in education; however, the data utilization methods you learn in this course will be applicable to virtually any data use process you encounter. In this course, you will demonstrate knowledge and skills to be an effective data user through a narrow lens of student learning data, such as the interpretation and application of data from assessments that will allow you to offer rich and meaningful learning experiences for students. Although the main focus in this course is on the use of student learning data, the skills you learn in this course will be transferable to data use purposes beyond assessment, such as evidence-based decision making relevant to perception, behavior, and school process data.

Welcome

Time is of the utmost concern for educators. The investment you make in this course will reduce the amount of time you spend analyzing data throughout the school year.

This course is made possible through the Y15 Federal SLDS North Dakota Data UP grant. As part of the responsibilities for the grant -- and modeling good practice -- we will be analyzing data generated as you complete the course. All your data will be de-identified, and we will only be viewing the data in aggregate based on role. For example, we will examine differences in data between teachers and administrators. These data may be used to make revisions and enhancements to curriculum modules, evaluate the extent to which curriculum goals are met, and serve as evidence to provide rationale for future funding opportunities. By clicking continue, you grant us the right to collect and analyze the data you generate in the completion of this course/modules.

Select Your Role

Please select the role that most closely aligns to your job title and responsibilities

Are you in-service or pre-service?

- **In-service:** If you are currently working in a K12 district/school or are working to provide services such as professional development to K12 stakeholders, you are in-service.
- **Pre-service:** If you are currently working for a teacher preparation program or are a student of a teacher preparation program, including your student teaching time, you are pre-servcie

Select Your Role

If you selected **In-Service**, please select the role that aligns most closely with your job title and responsibilities.

- Administrator
- Counselor/Career Advisor
- Instructional Coach/Strategist
- Librarian/Media Specialist
- Special Education/Title 1
- Teacher
- Other

Select Your Role

If you selected **Pre-Service**, please select the role that aligns most closely with your job title and responsibilities.

- Professor
- Student
- Other

Course Description

In this course, you will learn data literacy and inquiry methods necessary for effective data utilization within a school setting. As such, this course is set up to resemble a virtual school environment, Great Plains district, with activities and events that may occur throughout a calendar year.

You will demonstrate knowledge and skills through a series of interactive simulations that address a variety of data utilization purposes, such as identifying strengths and weaknesses for a group of students, monitoring progress toward an end-of-year goal for an individual student, and differentiating instruction.

Course Description

This course is designed to model best practices in analyzing and collecting data to support personalized instruction that is learning centric. Throughout the course, you will be asked to monitor your progress towards your learning goals, to modify them, or to set new goals, as appropriate throughout the course. In order to do so, you will self-assess and participate in frequent formative assessments for learning. You should, as a reflective practitioner, reflect on your understanding and performance and revisit your goals as appropriate.

Additionally, in modules 5-13, you will experience standards-based grading that drives your personalized learning experience. By doing the above, you will be practicing great 21st Century digital literacy skills to personalize your own learning experience.

Well Done

You have completed this module part. You can begin the next lesson when you are ready.