



Using Data for Continuous School Improvement

2015 Fall CIP Workshops
AM Session



Using Data for Continuous School Improvement



<https://goo.gl/e9c077>

2015 Fall CIP Workshops

About this Session

Part One:

Data Literacies – Four Types of Data – Self-Assessment Continuums

Overview

The importance of Data Literacy and Data Use; Continuous Improvement Continuums

Goals

Review Literacies and Types of Data; Understand process of continuums for self-evaluation

Part Two:

Perceptual Data – Data Literacy Self-Evaluation

Overview

The value of perceptual data and access options; District-level data literacy

Goals

Make connections between perceptual and other data types; Use available resources to monitor and improve the learning climate

HAVE TO DOs

GET TO DOs



Goal 2 SLDS Grant

Provide a statewide system of data analysis training that reaches every district and is sustainable once the grant funds have been expended.

Tiered Training Delivery

Statewide Data Cadre ✓

ESUs and NDE Staff ✓

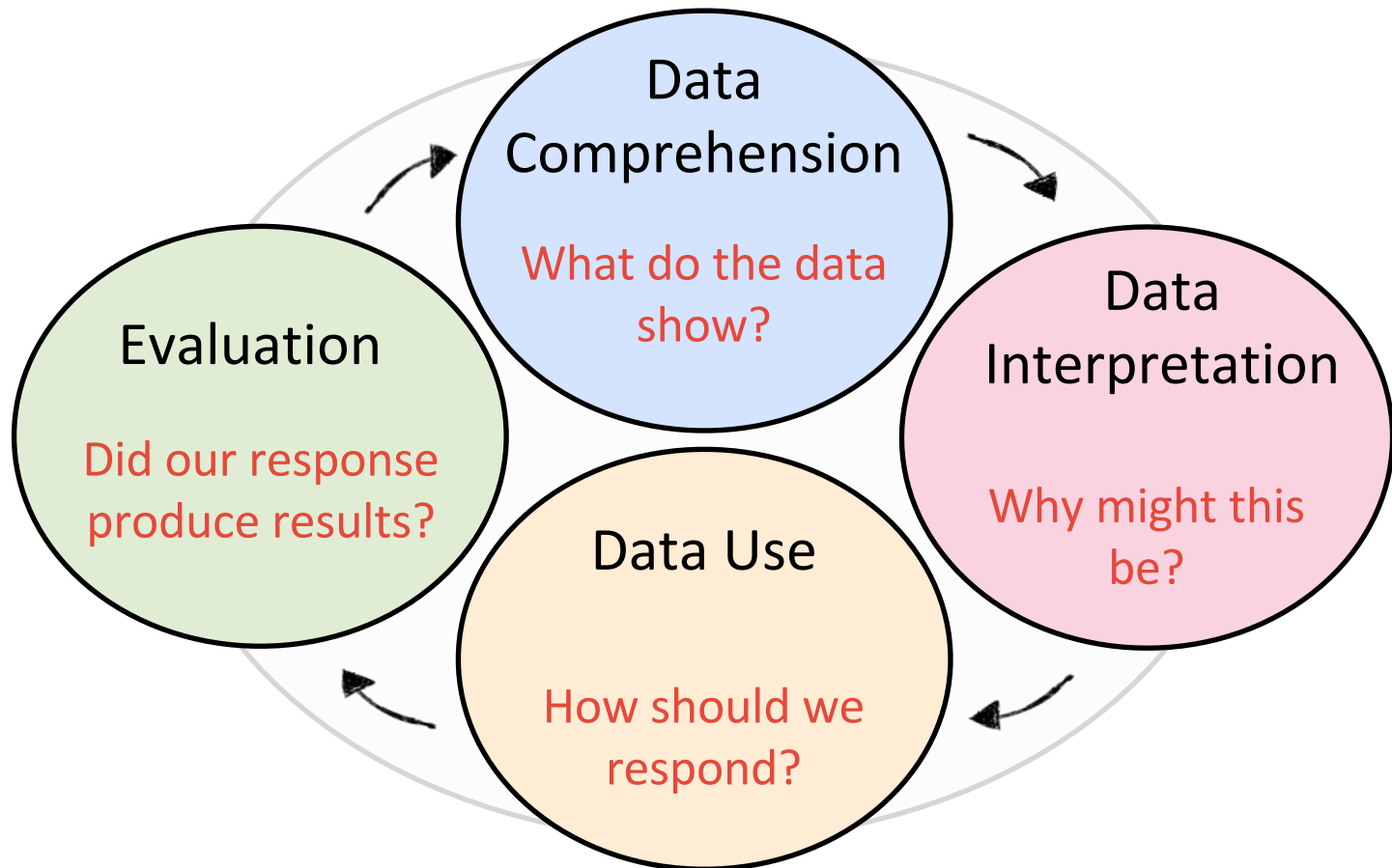
School District Leadership and Staff ✓



Data Cadre

- Create data use and literacy capacity and culture in Nebraska school districts.
- Collaborative effort between NDE and ESUCC:
 - 8 ESU consultants from 7 service units and the ESUCC
 - 11 NDE representatives from 8 departments
 - 1 representative from higher education

Nebraska Data Literacies



Data Literacies Format

1. Literacy

- a. Concept

- i. Indicators



Literacy 1

What do the data show?

Data Comprehension

Concepts:

- a. Continuous Improvement Process
- b. District/School Profile
- c. Data Tools and Skills

Data Literacies

Nebraska Department of Education Data Literacies, Concepts, and Indicators

1. **What do the data show?** - *Data Comprehension*

Team members continuously collect, analyze, and apply learning from a range of data sources using multiple levels of analysis. Sources will include comparison and trend data about student learning, instruction, program evaluation, and organizational conditions that support learning.

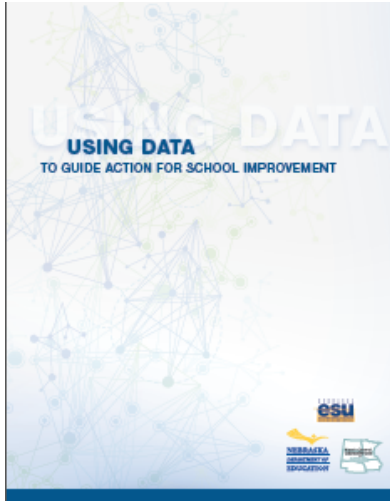
- a. **Continuous Improvement Process:** Team members will be actively engaged in a continuous improvement process to determine verifiable improvement in student learning including readiness for and success in the next level.
 - i. Identify the stages of the continuous improvement process within the system used by the district/school
 - ii. Identify all stakeholders involved in the continuous improvement process
 - iii. Describe the district/school's current progress in the continuous improvement process
 - iv. Identify subgroups for disaggregation (i.e. gender, poverty, limited English proficient, special education, ethnicity, etc.)
- b. **District/School Profile:** Team members will create and maintain a district/school data profile using multiple types of data, multiple levels of data analysis, and metrics appropriate for the measure of data.
 - i. Types of Data

Data Literacies Definitions

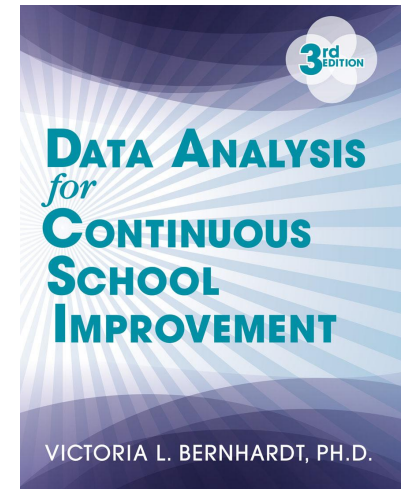
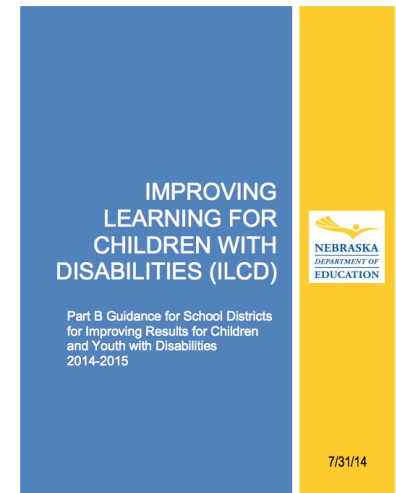
Data Literacies Definitions

Term	Definition	Clarification
action plan	a sequence of steps that must be taken, or activities that must be performed well, for a strategy to succeed. An action plan has three major elements: specific roles, timelines, and resources.	An action plan for improvement serves as the guide for all staff in implementing strategies to achieve a goal. The plan will direct each staff member over a period of time and should help all staff implement strategies to improve student learning.
analytic approach	any method based on breaking down a complex process into its parts so as to better understand the whole	
articulated curriculum	curriculum that has been sequenced and aligned across grade levels (vertical alignment), classrooms (horizontal alignment), and subject areas	
assessment	an instrument used to collect data about and evaluate student performance	
authentic assessment	a continuous evaluation of student learning based on pre-determined criteria, such as a rubric, that requires students to demonstrate their understanding of content or acquisition of skills in a meaningful or applied context	
baseline data	the level of performance at the start of a data collection or process that can be used to measure change in indicators in the future.	
categorical data	information that consists of counts or observations in specific categories rather than measurements	Categorical data that have a meaningful order (e.g. 1-5 rating) are referred to more specifically as <i>ordinal data</i> , whereas categorical data without a meaningful order (e.g. yes-no response) are known as <i>nominal data</i> .
cohort	a group of individuals who share a similar characteristic or experience	For example, a student's "expected graduation year" or "cohort" is determined by adding four years to the school year in which the student enters grade nine for the first time.

Data Use Curriculum



Nebraska Data Literacies





DATA ANALYSIS *for* **CONTINUOUS** **SCHOOL** **IMPROVEMENT**

VICTORIA L. BERNHARDT, PH.D.

Bernhardt, V.L.
(2013)

*Data Analysis for
Continuous School
Improvement*

(Third Edition)

New York, NY:
Routledge

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THE ESSENTIAL QUESTIONS FOR SCHOOL IMPROVEMENT

Data Literacy 1

What do the data show?

Where are we now?



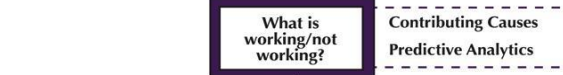
Data Literacy 2

Why might this be?

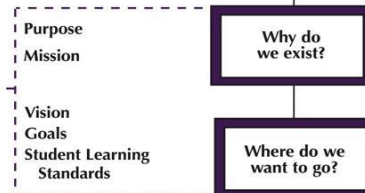
Data Literacy 2

Why might this be?

How did we get to where we are?



Where do we want to be?



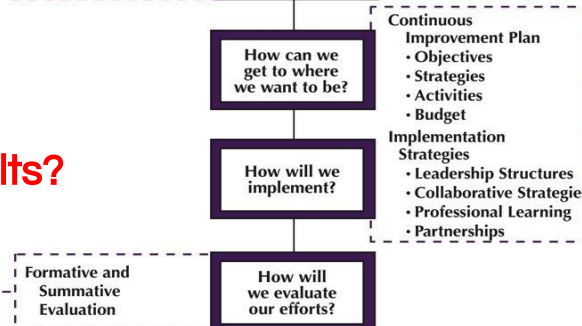
Data Literacy 3

How should we respond?

Data Literacy 4

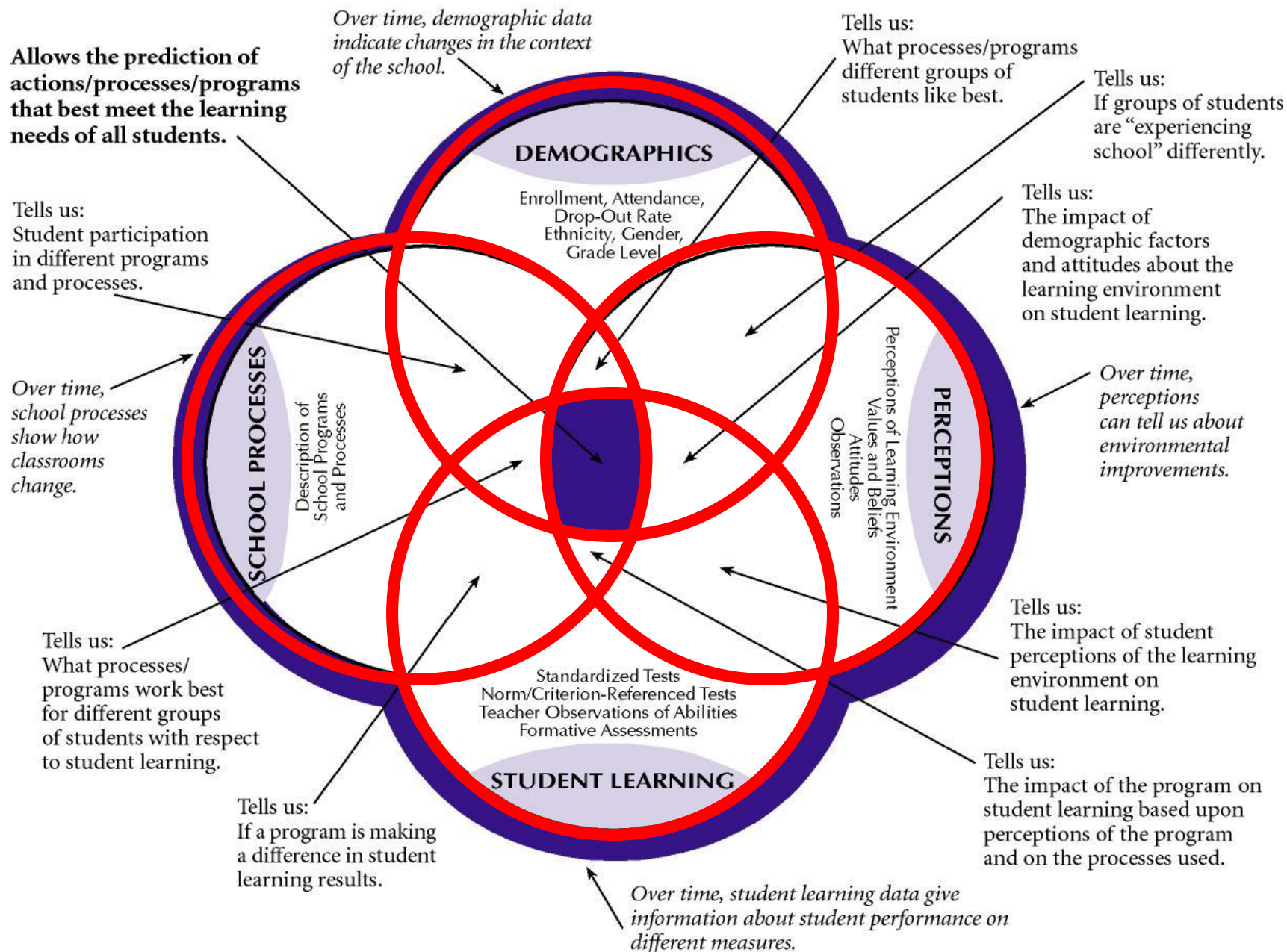
Did our response produce results?

Is what we are doing making a difference?

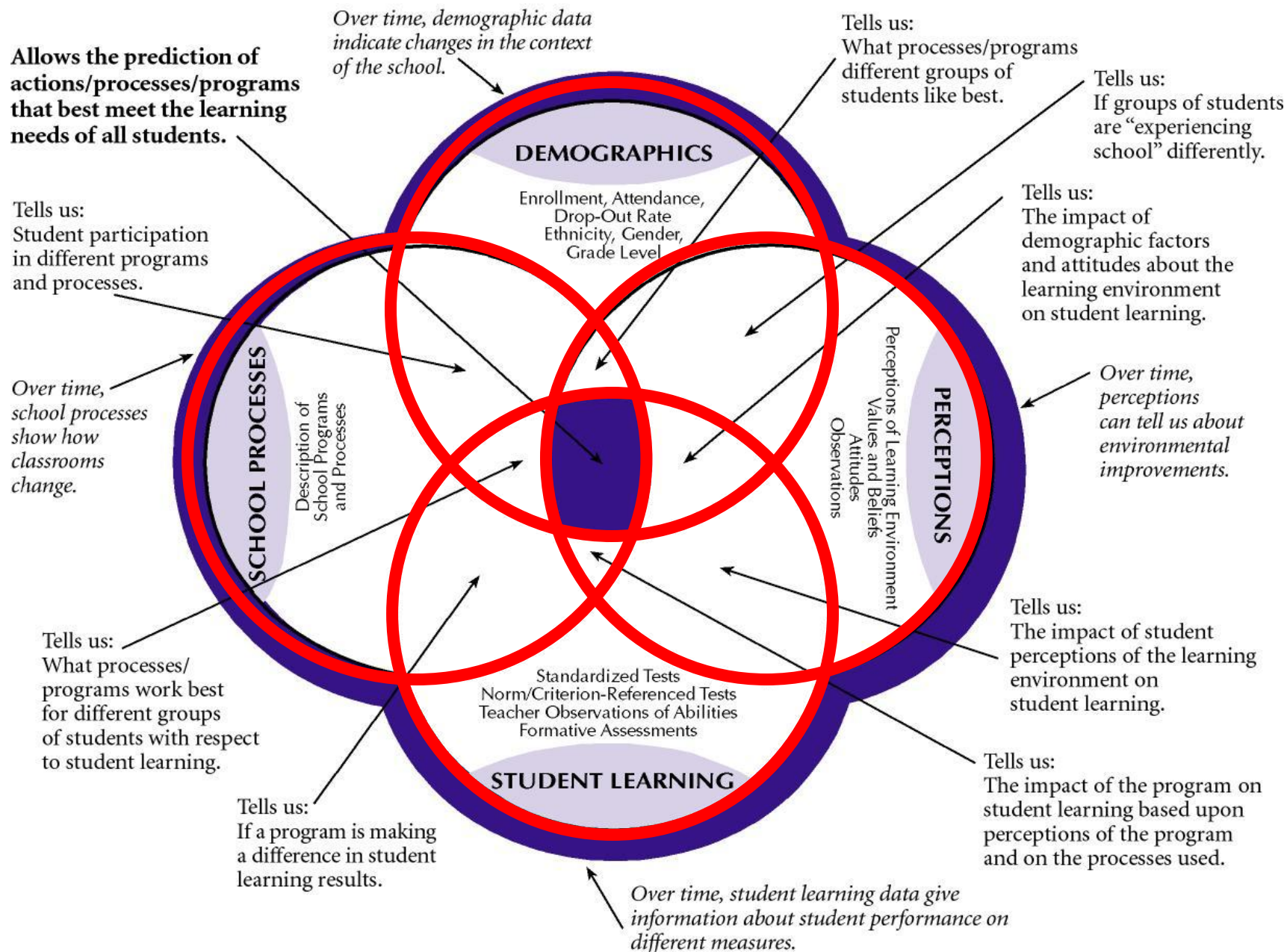


How are we going to get to where we want to be?

Multiple Measures of Data



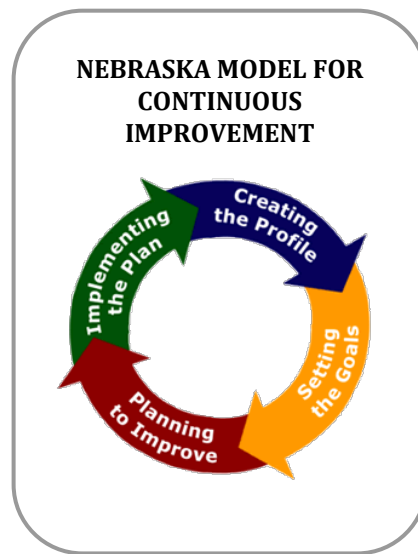
Multiple Measures of Data



Using Data for Continuous Improvement



Continuous Improvement Models



Nebraska Frameworks



AdvancED



Rule 10: Regulations and Procedures for the Accreditation of Schools

009 Continuous School Improvement

- ***009.01A2 Collection and analysis of data about student performance, demographics, learning climate, and former high school students.***

AdvancED

- ***Standard 5: Using Results for Continuous Improvement***



THINK BROADER

Holistic view of each student

Equal access to information

Collective impact

BE BETTER

Continuous improvement

Sharing of best practices

Focused on every student, every
day

EXPERIENCE BOLDER

New system for measurement

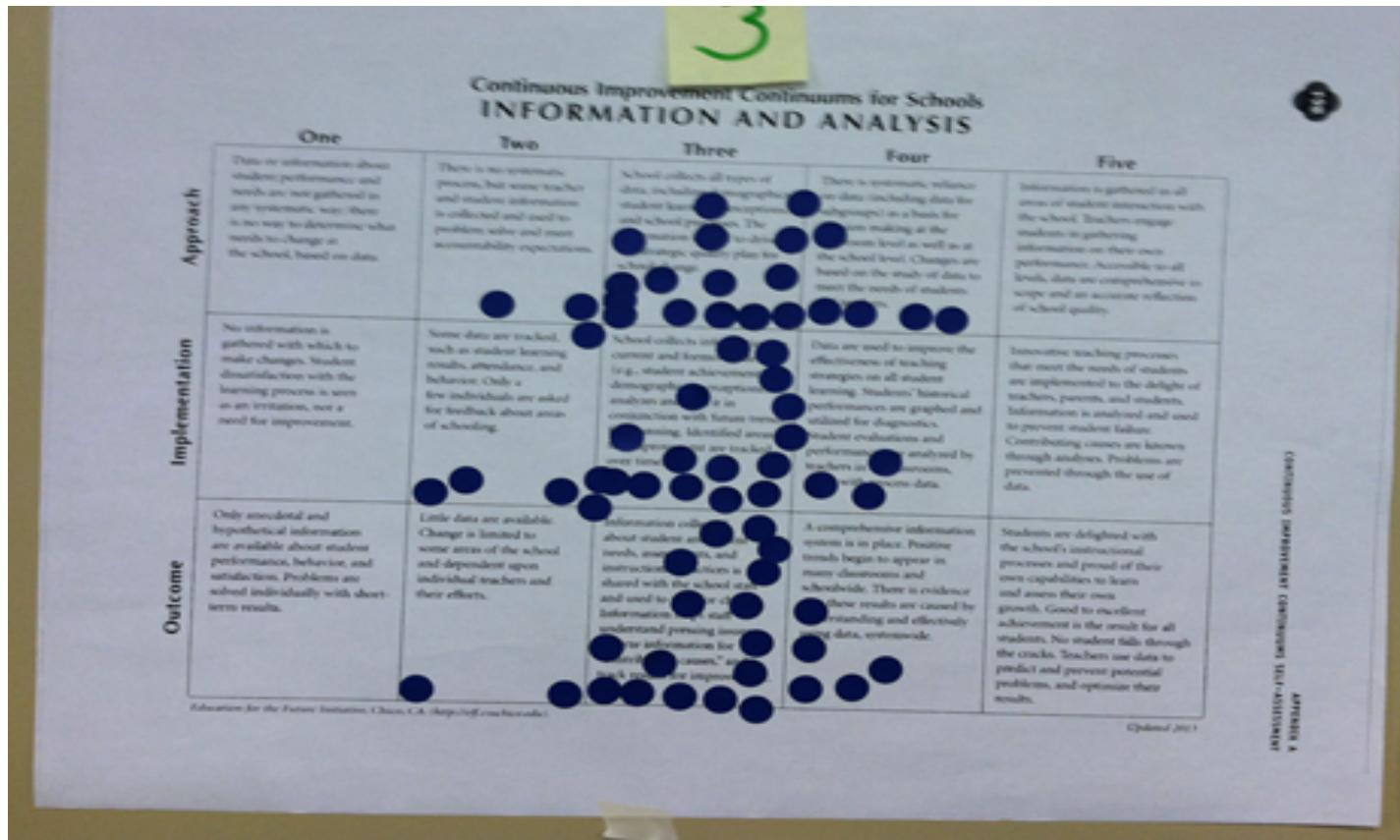
Customized for Nebraska

Outcome-based approach



10-minute Break

Continuous Improvement Continuums for Self-Assessment



How are we going to get to where we want to be?

Is what we are doing making a difference?

Continuous Improvement Continuums for Schools

INFORMATION AND ANALYSIS

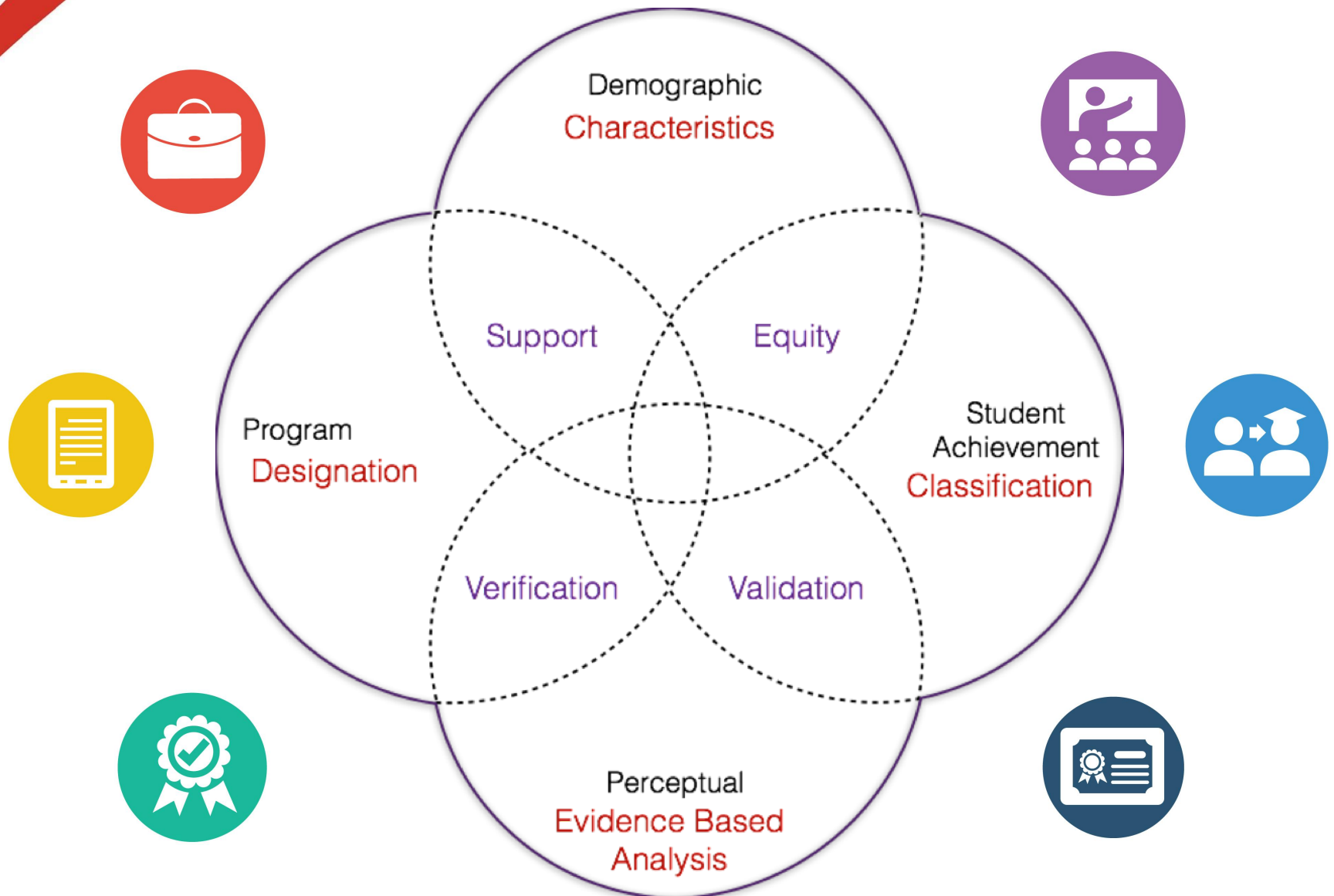
	One	Two	Three	Four	Five
Approach	Data or information about student performance and needs are not gathered in any systematic way; there is no way to determine what needs to change at the school, based on data.	There is no systematic process, but some teacher and student information is collected and used to problem solve and meet accountability expectations.	School collects all types of data, including demographics, student learning, perceptions, and school processes. The information is used to drive the strategic quality plan for school change.	There is systematic reliance on data (including data for subgroups) as a basis for decision making at the classroom level as well as at the school level. Changes are based on the study of data to meet the needs of students and teachers.	Information is gathered in all areas of student interaction with the school. Teachers engage students in gathering information on their own performance. Accessible to all levels, data are comprehensive in scope and an accurate reflection of school quality.
Implementation	No information is gathered with which to make changes. Student dissatisfaction with the learning process is seen as an irritation, not a need for improvement.	Some data are tracked, such as student learning results, attendance, and behavior. Only a few individuals are asked for feedback about areas of schooling.	School collects information on current and former students (e.g., student achievement, demographics, perceptions), analyzes and uses it in conjunction with future trends for planning. Identified areas for improvement are tracked over time.	Data are used to improve the effectiveness of teaching strategies on all student learning. Students' historical performances are graphed and utilized for diagnostics. Student evaluations and performances are analyzed by teachers in all classrooms, along with process data.	Innovative teaching processes that meet the needs of students are implemented to the delight of teachers, parents, and students. Information is analyzed and used to prevent student failure. Contributing causes are known through analyses. Problems are prevented through the use of data.
Outcome	Only anecdotal and hypothetical information are available about student performance, behavior, and satisfaction. Problems are solved individually with short-term results.	Little data are available. Change is limited to some areas of the school and dependent upon individual teachers and their efforts.	Information collected about student and parent needs, assessments, and instructional practices is shared with the school staff and used to plan for change. Information helps staff understand pressing issues, analyze information for "contributing causes," and track results for improvement.	A comprehensive information system is in place. Positive trends begin to appear in many classrooms and schoolwide. There is evidence that these results are caused by understanding and effectively using data, systemwide.	Students are delighted with the school's instructional processes and proud of their own capabilities to learn and assess their own growth. Good to excellent achievement is the result for all students. No student falls through the cracks. Teachers use data to predict and prevent potential problems, and optimize their results.

Continuous Improvement Continuums for Schools

STUDENT ACHIEVEMENT

	One	Two	Three	Four	Five
Approach	Instructional and organizational processes critical to student success are not identified. Little distinction of student learning differences is made. Some teachers believe that not all students can achieve.	Some data are collected on student background and performance trends. Learning gaps are noted to direct improvement of instruction. It is known that student learning standards must be used to guide instruction and learning.	A shared vision is created. Each staff agree and commit to what they are going to teach, how they are going to teach, how they will assess, and how they and students will treat each other and students (teachers). Student learning standards are identified for implementation, and a continuum of learning is created throughout the school. Student performance data are collected and compared to the standards in order to analyze how to improve learning for all students.	Data on student achievement and the achievement of student learning standards are used throughout the school to pursue the improvement of student learning. Teachers collaborate to implement appropriate instruction and assessment strategies for meeting student learning standards articulated across grade levels. All teachers believe that all students can learn.	School makes an effort to exceed student achievement expectations. Innovative instructional changes are made to anticipate learning needs and improve student achievement. Teachers are able to predict characteristics impacting student achievement and to know how to perform from a small set of internal quality measures.
Implementation	All students are taught the same way. There is no communication with students about their academic needs or learning styles. There are no analyses of how to improve instruction.	Some effort is made to track and analyze student achievement trends on a schoolwide basis. Teachers begin to understand the needs and learning gaps of students.	Teachers commit to effective instruction and assessment strategies to implement standards and to increase their students' learning. Student feedback and analysis of achievement data are used in conjunction with implementation support strategies, such as lesson study and demonstration lessons.	There is a systematic focus on implementing student learning standards and on the improvement of student learning schoolwide. Effective instruction and assessment strategies are implemented in each classroom. Teachers support one another with peer coaching, lesson study, and/or action research focused on implementing strategies that lead to increased achievement and the attainment of the shared vision.	All teachers correlate critical instructional and assessment strategies with objective indicators of quality student achievement. A comparative analysis of actual individual student performance to student learning standards is utilized to adjust teaching strategies to ensure a progression of learning for all students.
Outcome	There is wide variation in student attitudes and achievement with undesirable results. There is high dissatisfaction among students with learning. Student background is used as an excuse for low student achievement.	There is some evidence that student achievement trends are available to teachers and are being used. There is much effort, but minimal observable results in improving student achievement.	There is an increase in communication between students and teachers, and teachers and teachers, regarding student learning. Teachers learn about effective instructional strategies that will implement the shared vision, student learning standards, and meet the needs of their students. They make some gains.	Increased student achievement is evident schoolwide. Student morale, attendance, and behavior are good. Teacher morale is high. Teachers converse often with each other about preventing student failure. Areas for further attention are clear.	Students and teachers conduct self-assessments to continuously improve performance. Improvements in student achievement are evident and clearly caused by teachers' and students' understandings of individual student learning standards, linked to appropriate and effective instructional and assessment strategies. A continuum of learning results. No students fall through the cracks.

AQuESTT and Data Analysis for Continuous Improvement





Thank you!