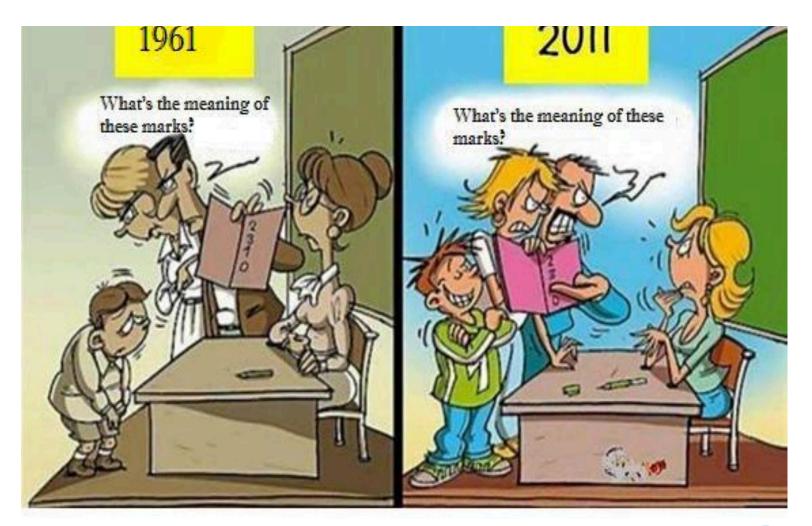


#### Data Dashboards

May 29 and 31, 2012





## Agenda and Workshop Goals

- Review goals of EPIC
- RISE Context and SLOs
- Data analysis and inference
- Data Dashboard Concepts and SLPs
- Looking at an rGrade Data Dashboard
- Data Meetings and Data Analysis



#### **EPIC Goals**

- I. Organize and analyze evidence of student learning from various sources,
- 2. Align new core academic standards with language arts instruction and assessment.
- 5. Design curriculum that reflects evidence of student learning and scientifically based reading instruction.
- 6. Implement and evaluate data-driven assessment in everyday practice.

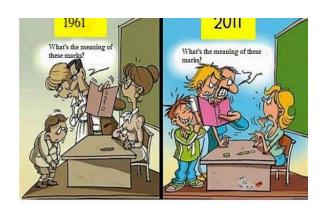


## **TEST**



#### **About RISE**

- EPIC ≠ RISE Training
- RISE training for EPIC staff
- PD activities in EPIC are informed by RISE but not driven by it





## RISE Component 2: Student Learning Achievement

 Definition: Meeting a uniform and predetermined level of mastery on subject or grade level standards

 Achievement is a set point or "bar" that is the same for all students, regardless of where they begin



## RISE Component 2: Student Learning Growth

• Definition: Improving skills required to achieve mastery on a subject or grade level standard over a period of time.

• Growth differentiates mastery expectations based upon baseline performance.



## RISE Hierarchy of Assessment Options

- State Assessment (ECAs, ISTEP, etc)
- Common Corporation Assessment
  - Created or purchased
  - e.g. Acuity, mClass
- Common School Assessment
  - Created or purchased
- Classroom Assessments
  - Teacher-developed



# Typical Time That Teachers Spend Working in the Hierarchy

State Assessments

Common Corporate
Assessments

Common School Assessments

Classroom Assessments



## Student Learning Objectives: Preview of July 17<sup>th</sup> Workshop

- Informed by student learning data
- Specific and measurable
- Aligned to state standards
- Based on growth and achievement



## Review data analysis and inference

Quick Role Play



## Reliability

- A cornerstone of assessment
- Essential for judging quality
- Imprecision of educational assessment
- Reliability = Consistency



#### Stability

- Consistency of test results over time
- No intervening events
- a.k.a Test/Retest
- Procedures for calculation:
  - Correlation Coefficient
  - Classification-consistency reliability
- Comparison to prior tests of other students



#### Standard Error of Measurement

 An estimate of consistency of an individual's performance in relation to the test's reliability



#### **Validity**

- The linchpin of educational measurement (the attribute that holds it all together)
- Is there such a thing as a valid test?
- Inference



## Validity Evidence

- Content related...
- Criterion related...
- Construct related...



#### Content Related Evidence

- Measure of content in item to content in aim
- How do we make a test content valid?
  - Developmental care
  - External Reviews
  - Alignment Process



#### Criterion-Related Evidence

- For criterion tests
- Used for prediction on external criterion
- Determines confidence of score-based inference



#### Construct-Related Evidence

- The extent to which empirical evidence confirms an inferred construct exists AND that a given assessment procedure is measuring the inferred construct accurately.
- What's a construct?
  - An explanatory variable which is not directly observable (Cronbach and Meehl, 1948)
  - The thing you hold true in order to test something else.
  - The manifestation of the something else (e.g. love, liberty, etc.

## Validity Alignment

- Categorical Concurrence
- Depth of Knowledge
- Range of Knowledge
- Balance of Representation



#### Reliability vs. Validity

- Can an unreliable test yield valid inferences?
- Can a reliable test yield invalid inferences?



#### Norm-referenced measurements

- Refers to the process of comparing one testtaker to his or her peers.
- Percentile: Percent of students in norm group that an examinee outscored
- Stanine: A method of scaling test scores on a nine-point standard scale with a mean of five and a standard deviation of two.
- Grade Equivalent: Compares performance on the test to that of students at various levels who took the same test (does not refer to grade-level competency).

#### Criterion-referenced measurement

- The score shows whether or not the learner performed well or poorly on a given task/test
- Mastery of curricular aim
- More the focus of educational reform (assessing to a common standard)



#### Data Dashboards

- What are they?
- Why so many?
- What can a teacher do with them?
- How we learn to love data by calling it evidence!



## Data Dashboards: Some Definitions

- Live data presented for everyday analysis
- Not the snapshot, but the "camera";
- Not the measure, but the gauge
- "Dynamic learning inference spaces"



#### Examples of Data Dashboards

- Summary screens of tools like mCLASS
- Printouts of results from Acuity
- The Growth Model Data in the Learning Connection
- A teacher's own Excel spreadsheet
- Other district or online systems



## Using Data Dashboards: A Teacher's Tool

- The means of organizing information in the most sustainable, sharable way
- A method of making sense of data, from personal and shared perspectives.
- Can be used to determine targeted assessments and RTI
- More than the "system". It's how we wrap discussion and action around the data.

# Data Dashboards: Using Them in Practice



#### 2011 SLPs as Data Dashboards

- Home brew approach: Focus on teacher's personal constructions and reflection
- A portfolio approach to gathering evidence
- Permitted student artifact capture
- A precursor to live data systems



#### Building Data Dashboards

- It doesn't have to be comprehensive
- Use it to organize disparate data
- For EPIC only, unless you find it useful
- Not intended for RISE purposes



## Looking at an rGrade DD



#### rGrade Functions

- Building Rubrics
- Managing grade- and content-area rosters of student data
- Analyzing individual student progress
- Analyzing aggregate student performance

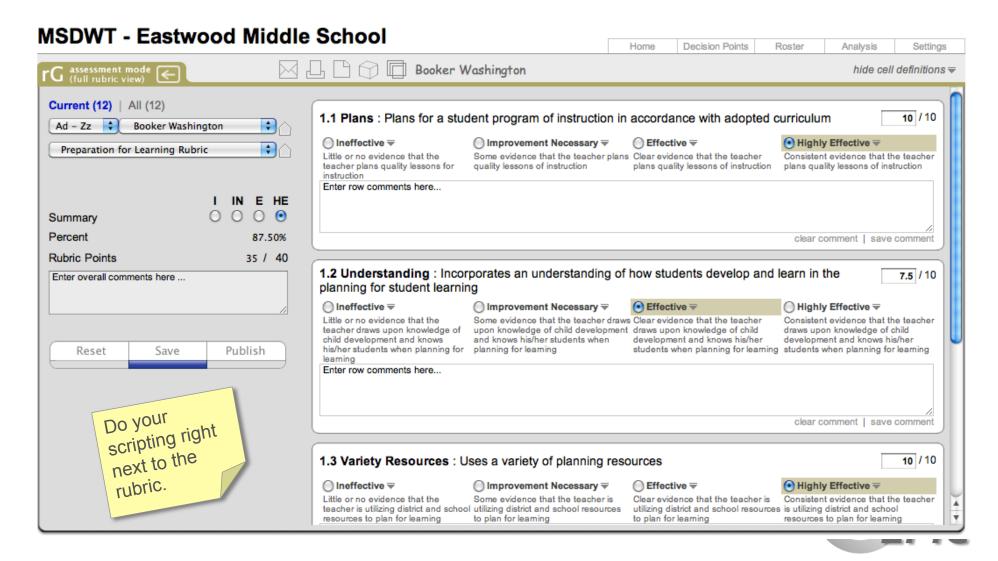


## Key rGrade Tools

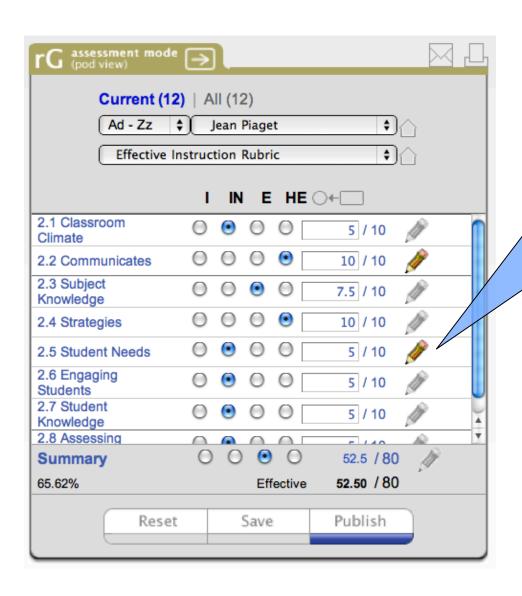
- Rubrics Module: Where you build, share, and acquire rubrics
- Programs Module: Your DD across all teachers within a subject area
- Courses Module: Your own personal DD for your students. May include some common assessments

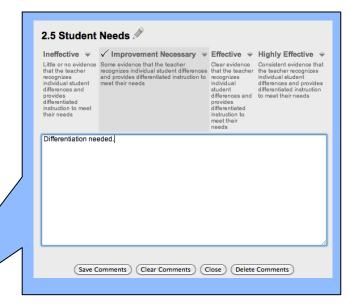


# Full Rubric Assessment Mode: Ready for notes and scripts!



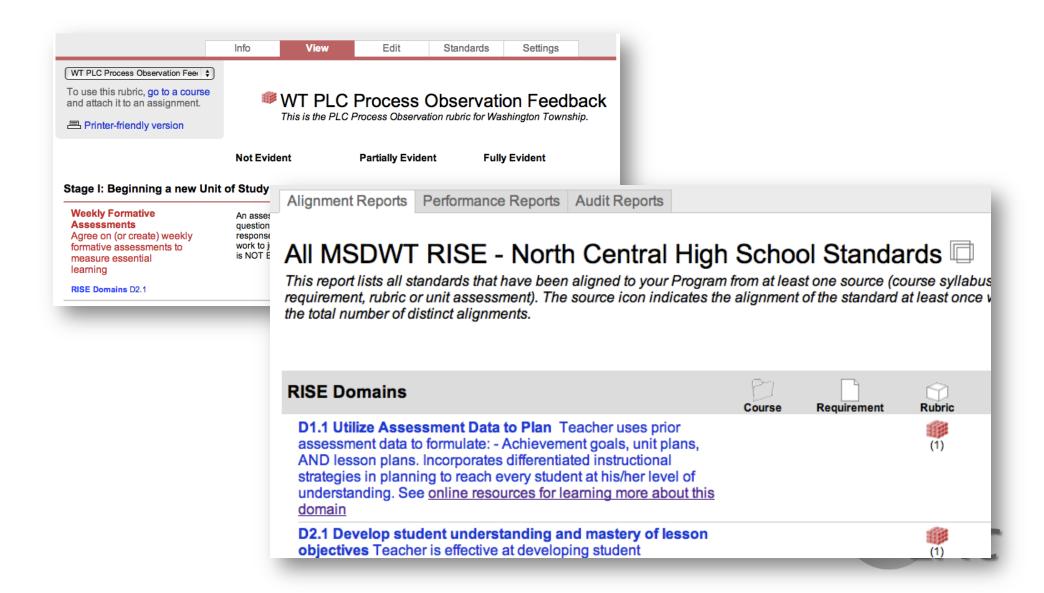
## rG Pod View: For use on phones and tablets



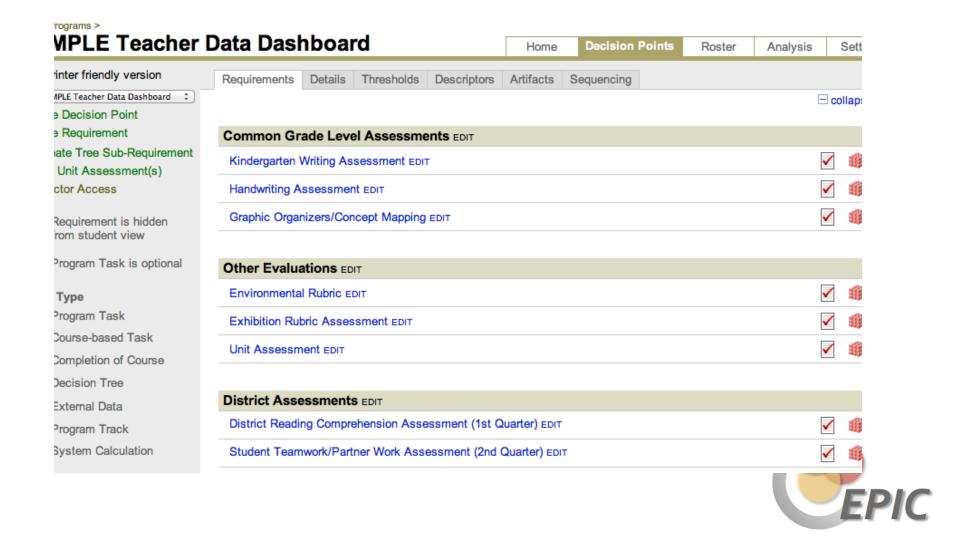


On all rubrics you have the ability to use a calculated score or professional judgment.

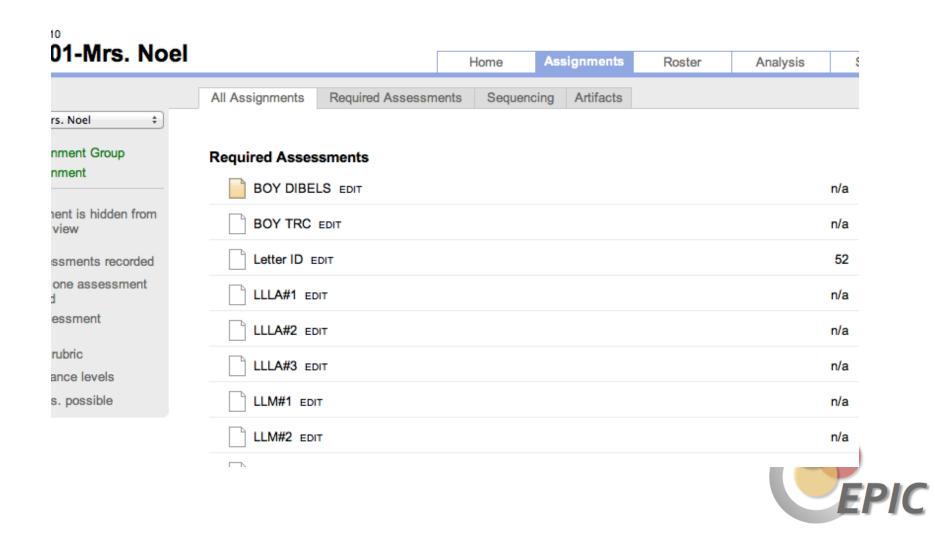
# Tracking Indicators



#### Assessment Data Dashboard



#### Classroom View

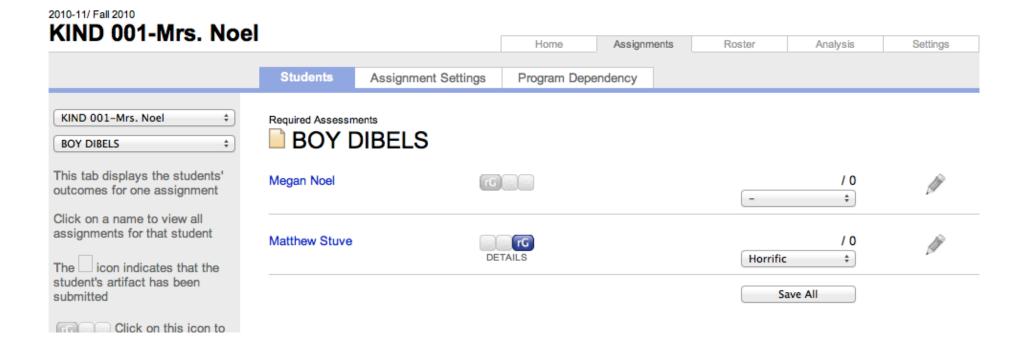


# Adding Test Scores

2010-11/ Fall 2010 KIND 001-Mrs. Noel Home Assignments Roster Analysis Settings **Students** Assignment Settings KIND 001-Mrs. Noel Classroom Assessments **Test Score** Test Score This tab displays the students' Megan Noel rG TO / 50 outcomes for one assignment Click on a name to view all Matthew Stuve rG assignments for that student / 50 Click on this icon to Save All enter an assessment



# Scoring by Performance Level





## Looking at Aggregate Data

- Performance
- Rubric
- Alignment



#### rGrade Demonstrates:

Performance to standard

Audit (gaps in coverage/performance)



#### Rubrics

- A scoring matrix used to assess student performance along a task-specific set of criteria
- Rows = criteria
- Columns = quality
- Cells = indicators of quality per criterion



# Whining Rubric

Handout Example



### SLO Development

- Separate of RISE SLOs for RISE scores
- Non-growth model
- Focus on literacy SLOs



### Data Meetings

- Discuss your current procedures
- Share Organize Data Meetings Handout
- Plans for future Data Meetings



### Data Analysis

 Use data from SLP and/or classroom data or sample data from EPIC team

 Complete Parts I & II of Data Analysis for Instructional Decision Making



## Looking Ahead

- June: Look at baseline data to determine learning targets (print data dashboards)
- July 17<sup>th</sup> Workshop: Design SLOs for Literacy and read Best Practices Rdg.
- July August: Create assessments for SLOs in rGrade DD
- Plan an implement instruction based on learning targets and SLOs
- November Showcase of Progress

