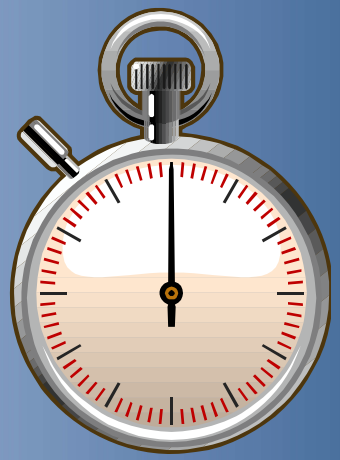
Using Scientific Research-Based Interventions to Improve Outcomes for All Students

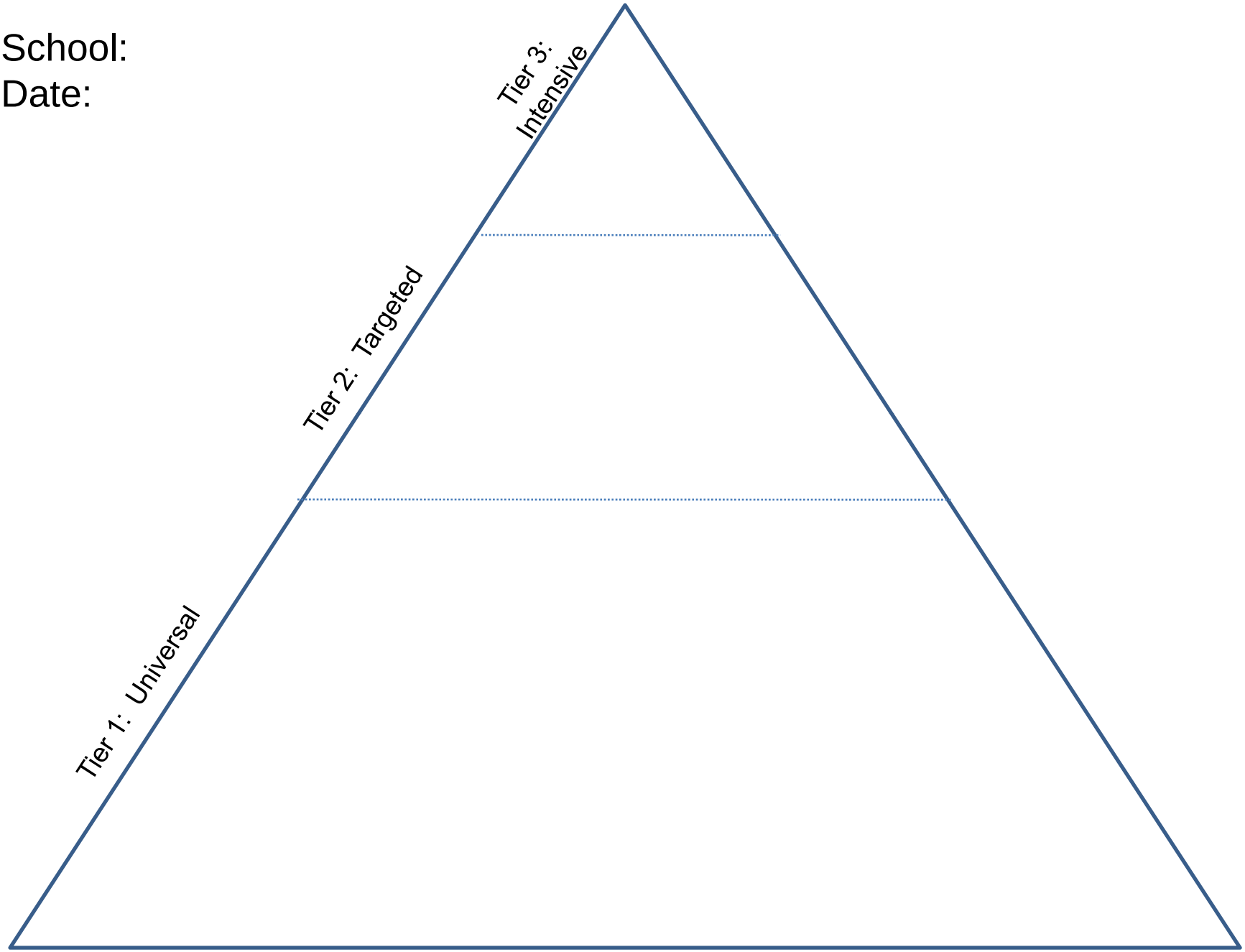
Progress Monitoring

Resource Mapping

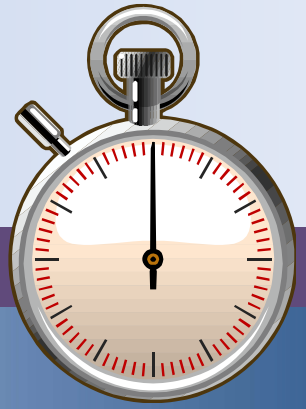
- Create a Resource Map with ideas for:
  - Curriculum, Instruction, & Learning Environment
  - Assessments
  - Decision-Making/Progress Monitoring
  - Staffing and Scheduling
- What do we have in place?
- What evidence do we have to support?
- What is having the most positive impact on student outcomes?



School:
Date:



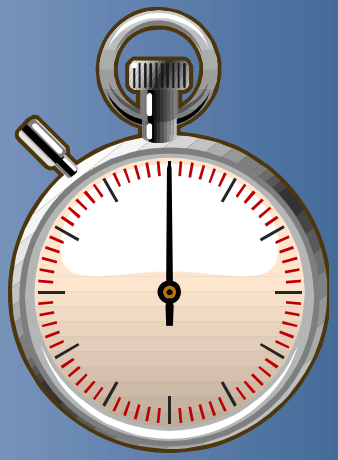
Resource Mapping
Questions to Consider



- **<u>Curriculum, Instruction & Assessment</u>**
  - Does curriculum already exist for the priority areas for intervention?
  - Have we identified effective instructional strategies?
  - What common assessments & behavioral data already exist that can be used as universal screening to identify difficulties in math and reading?
  - What progress monitoring tools already exist?

Resource Mapping
Questions to Consider

- **Staffing**
  - Are there teacher duties that can be relieved?
  - Which teachers have dual certification?
  - Available interns, paraprofessionals, tutors, instructional aides?
  - Community volunteers (families, retired teachers or other professionals)?
- **Schedules**
  - Fixed or block schedule
  - School-wide intervention block
  - Workshop/academy/ common block
  - Homeroom period



Resource Mapping
Questions to Consider

- **<u>Instructional Materials</u>**
  - Leveled texts and other differentiated materials?
  - Reading instructional programs and materials?
  - Math instructional materials?
  - Math manipulatives?
  - Computers and computer programs?
  - Are materials must age appropriate, engaging, and respectful for older students?
  - Are culturally relevant materials available and utlized?

Essential Questions for Learning

- How are monitoring and evaluating distinct?
- What are the essential characteristics of monitoring systems?

The Purpose of Assessment

"Assessment is a process of collecting data for the ***purpose of making decisions*** about individuals or groups and this decision-making role is the reason that assessment touches so many people's lives."

(Salvia & Ysseldyke, 2001)

Traditional Assessments

- Tests typically are lengthy
- Tests are administered on an infrequent basis
- Teachers do not have ready access to data to inform instructional planning and students therefore don’t receive the immediate feedback needed
- Grades and placement decisions are often reflective of test results

Versus Progress Monitoring

- Brief and easy to administer
- Alternate forms (probes) that measure same skill at same difficulty level (repeatable)
- Sensitive to change/small increments of growth
- Administered at regular intervals
- Can use data to quantify short and long-term goals and monitor student progress in meeting grade level benchmarks
- Can estimate rate of student improvement

studentprogress.org

Review of Progress Monitoring Tools

Updated December 2007

Please note that the National Center on Student Progress Monitoring does not endorse or recommend the tools included in the chart. The Center provides this information to assist educators and practitioners in making informed decisions about scientifically based tools that best meet their individual needs.

Tools Area		Foundational Psychometric Standards		Progress Monitoring Standards				
		Reliability	Validity	Alternate Forms	Sensitive to Student Improvement	AYP Benchmarks	Improving Student Learning or Teacher Planning	Rates of Improvement Specified
Accelerated Math and Reader	*Math	●	●	●	●	●	●	●
	Reading	○	●	●	●	●	●	●
AIMSweb	iEarly Literacy	●	●	●	●	●	●	●
	Early Numeracy	●	●	●	●	●	○	●
	Math	●	●	●	○	●	○	●
	Maze	●	●	●	●	●	●	●
	Reading	●	●	●	●	●	●	●
	Spelling	●	●	○	●	●	●	●
	Written Expression	●	○	●	●	●	●	●

Progress Monitoring by Design

- Determine whether students are benefitting from core instruction
- Develop more effective programming for students who are not benefitting
- Identify students who are not making adequate progress
- Compare the efficacy of different forms of instruction/intervention
- Design more effective, individualized interventions early on

Progress Monitoring

- Should be conducted more frequently as interventions become more intensive
- Adequate progress monitoring should result in no surprises for teachers or parents with regard to student's achievement, including on the statewide assessments
- Should be conducted frequently enough to show growth against peer benchmarks AND be targeted enough to indicate rates of growth in narrowing the gap between peers and current level

Progress Monitoring (continued)

- Examination of this data should help school teams rule out lack of appropriate instruction
- This information will be important in designing a comprehensive evaluation
- Progress monitoring <u>must</u> continue once a student is eligible for special education

Have you ever wondered…?

How PM Lends Itself to DDDM in Tier 1

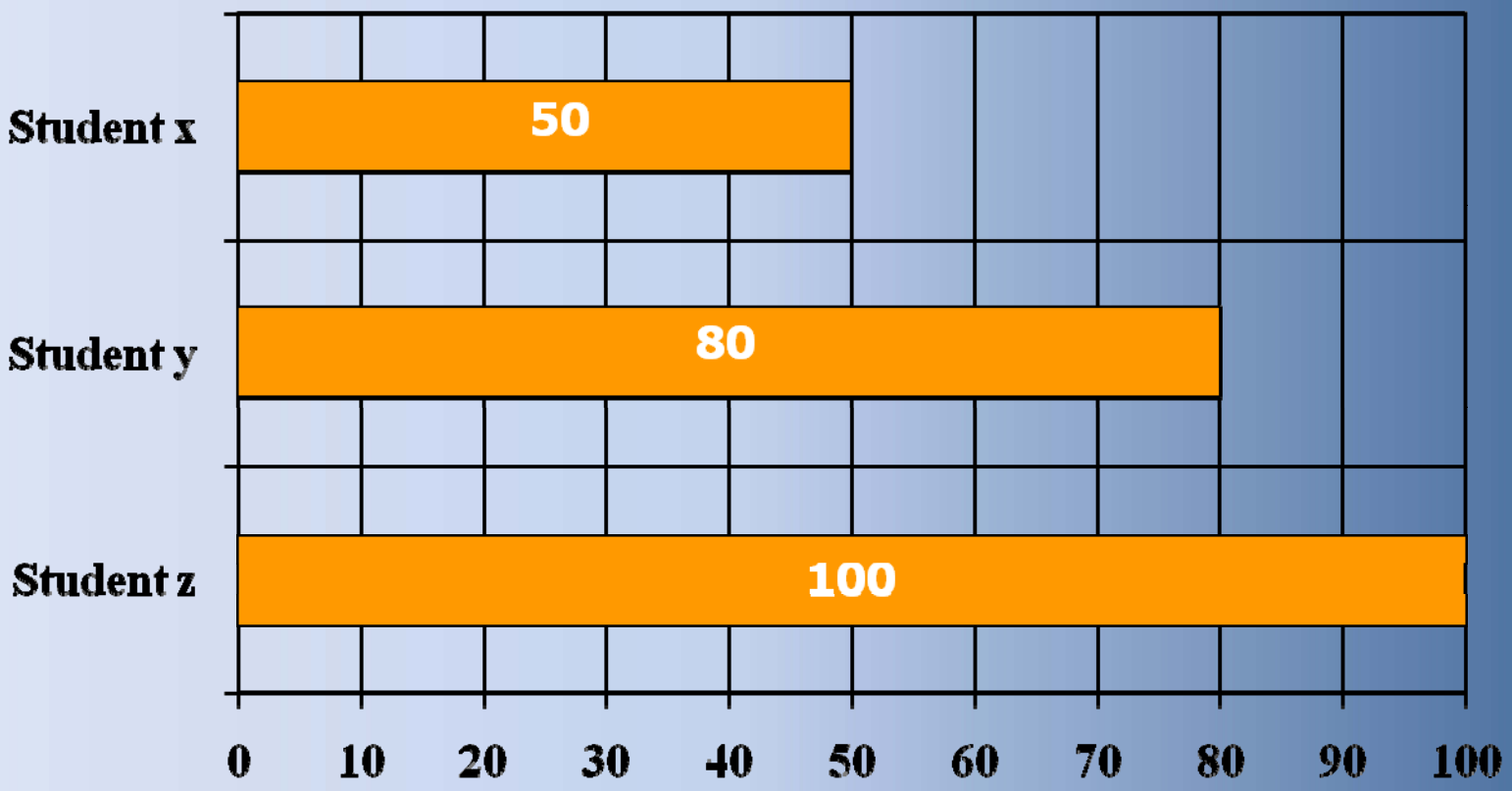
As a result of progress monitoring, educators can: compare data to individual, classroom, grade level, school, or district data to inform overall curriculum, instruction, and environmental changes that are necessary to improve student outcomes, such as:

- instructional strategies, procedures, and materials;
- flexible grouping;
- allocated time for particular lesson components;
- motivational strategies (performance vs. skill deficit);
- type, frequency, and duration of instructional support.

The Policy Basis for Adopting PM

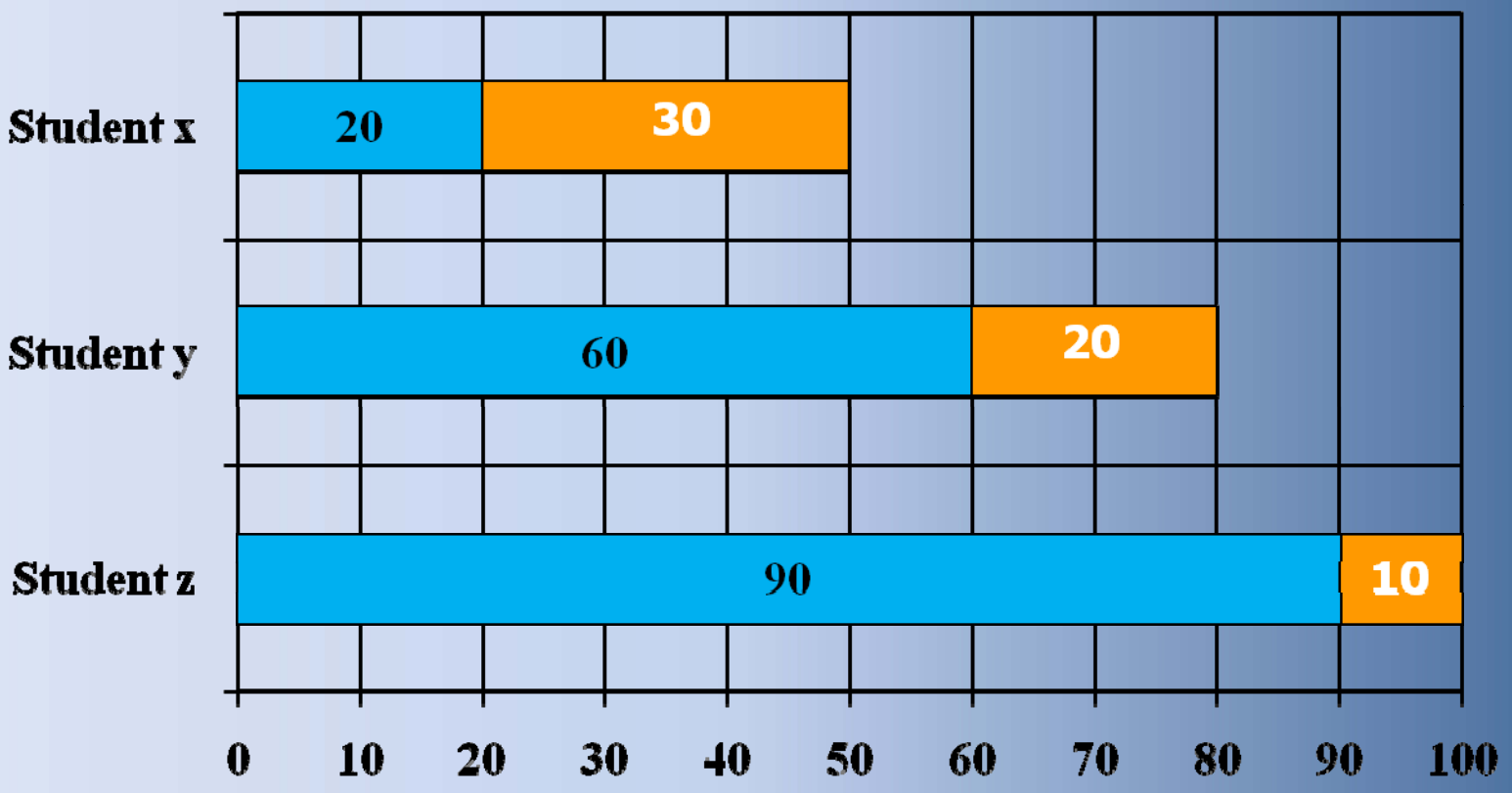
- No Child Left Behind focuses on the progress of sub-groups of students
- IDEA 2004 focuses on early intervening services and response to intervention, including <u>need to provide families with continuous progress monitoring updates beyond report card grading</u>.

What Grade Would You Give?



James Tucker, Ph.D.

What Are We Really Grading?



James Tucker, Ph.D.

Testing vs. Assessment

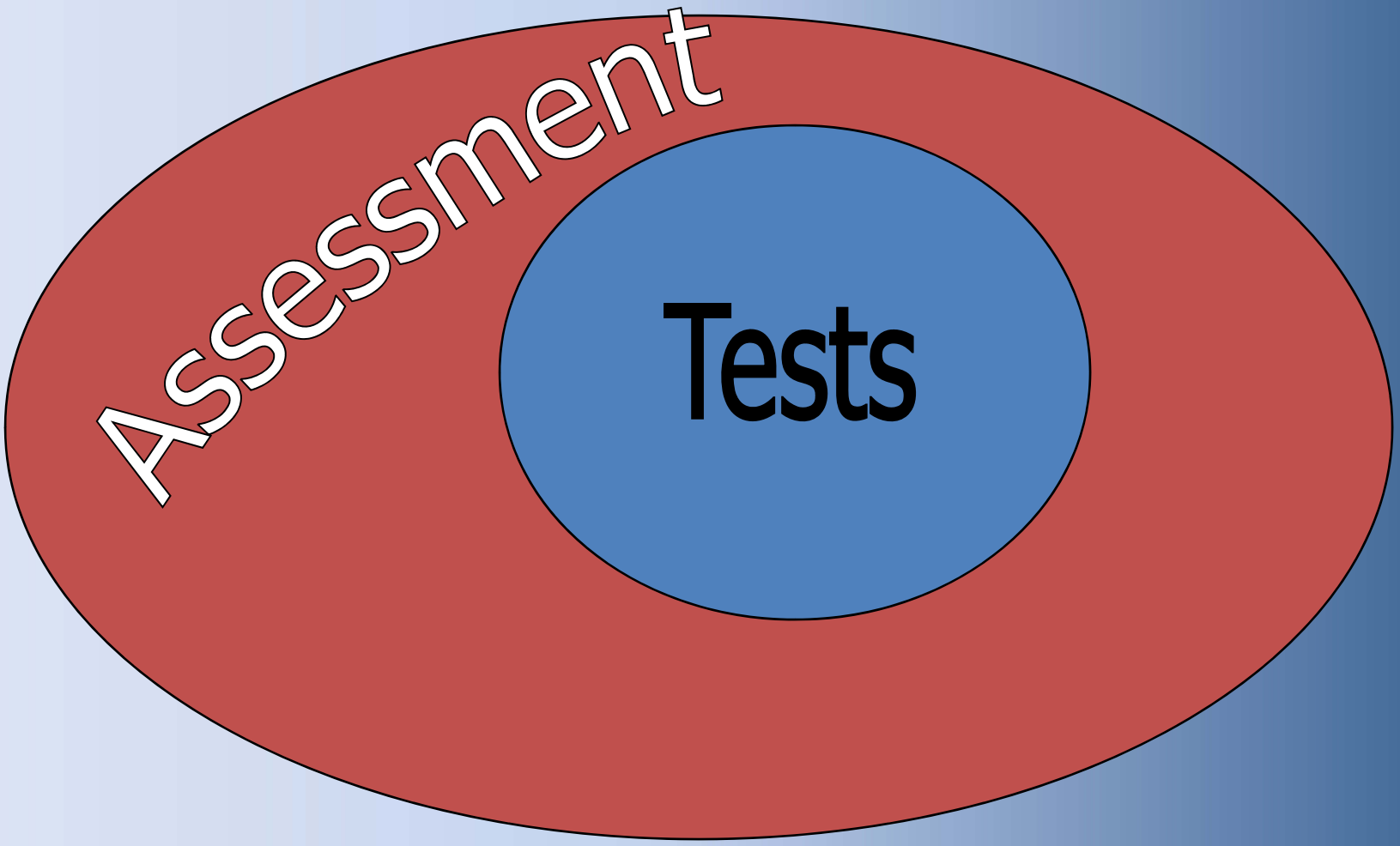
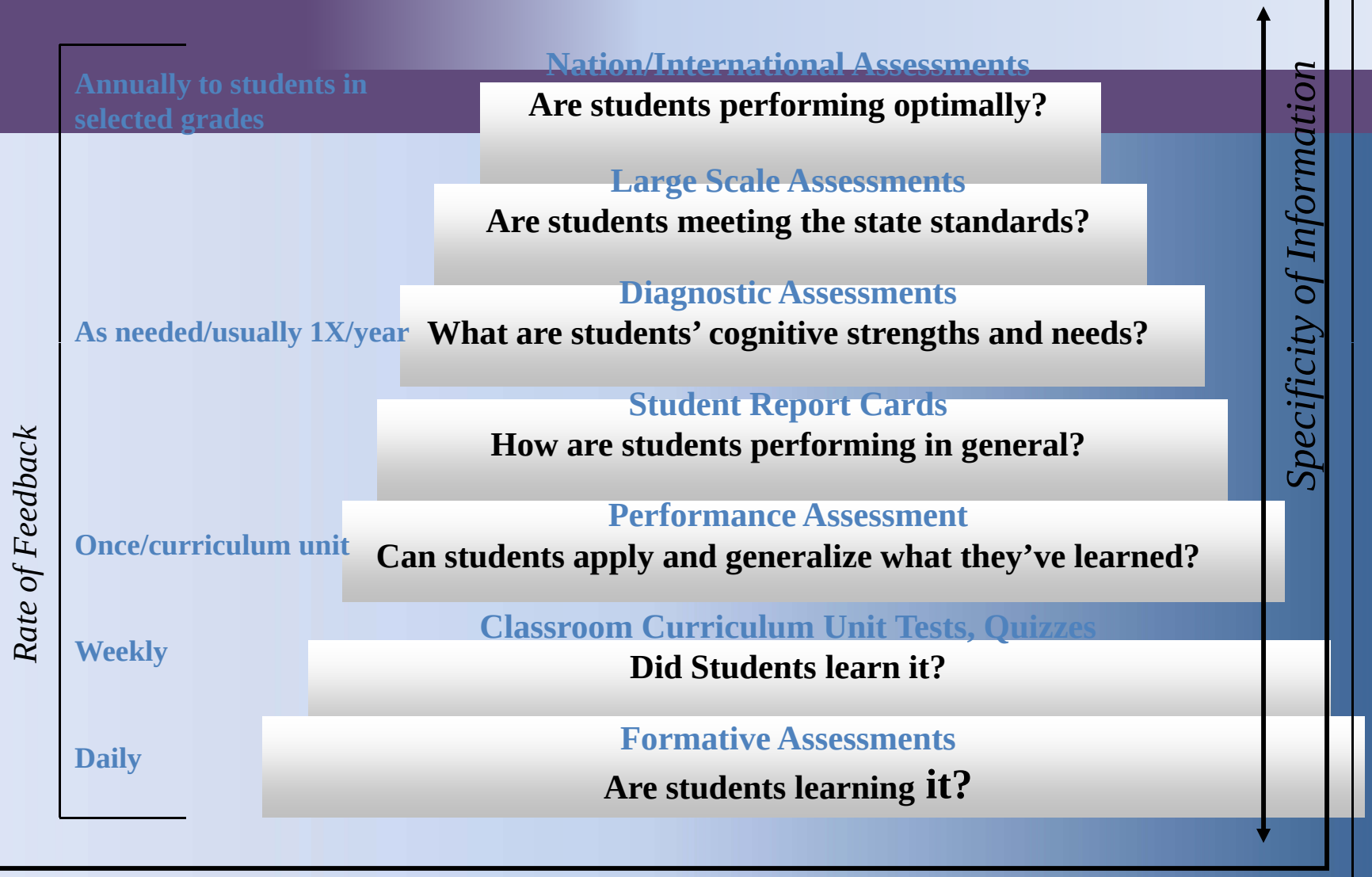


Figure 1.The Richness and Complexity of Student Assessment Data



Non-discriminatory Assessment Practices

Practitioners must be cognizant of the fact that some progress monitoring practices may not be appropriate for use with culturally and/or linguistically diverse students since they may yield unreliable and invalid results.

(Baca, Hoover, Klingner 2008)

For Example

- Conduct student discussions and classroom observations regarding assessment items.
- Validate information from the home and family settings to corroborate progress monitoring data.
- Linguistically appropriate goals (e.g., LAS, LAS Links) and aligned services are included in progress monitoring.
- Evidence-based adaptive behavior interventions are attempted and documented.

What information do we need?

- Quantitative data to:
  - Define the gap between expectations and current level of performance to develop focus area
  - Monitor student progress and growth
- Qualitative data to:
  - Determine function or underlying cause for area of concern
  - Define the context/conditions
  - Examine the implications of decisions

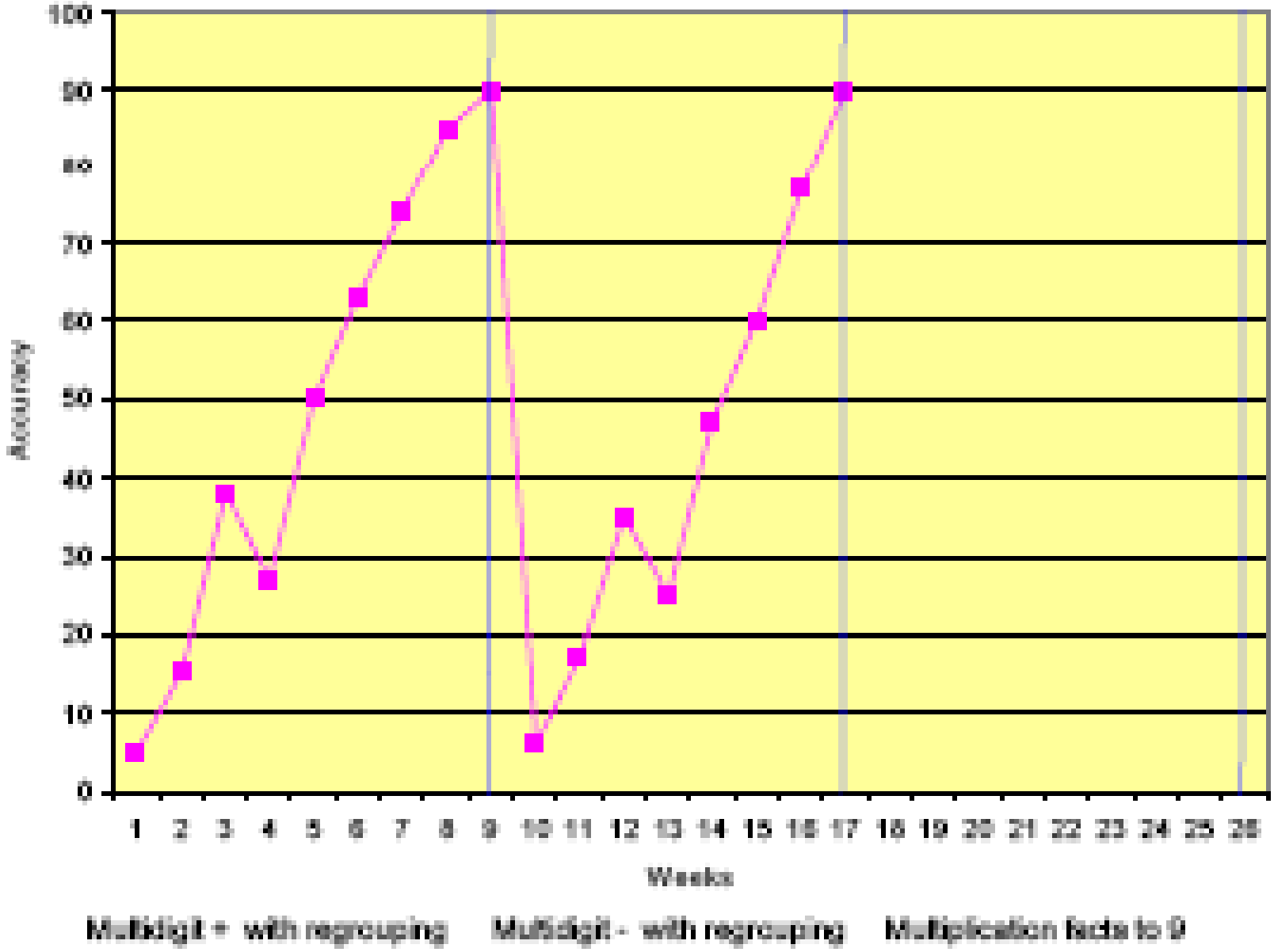
What is the Purpose of the Assessment?

- What do you need from the assessment?
- Why are you using the assessment?
- What will you do with the data?
  - Measure overall growth
  - Measure growth in a specific skill area
  - Use the data to inform instruction and intervention

Types of Assessments

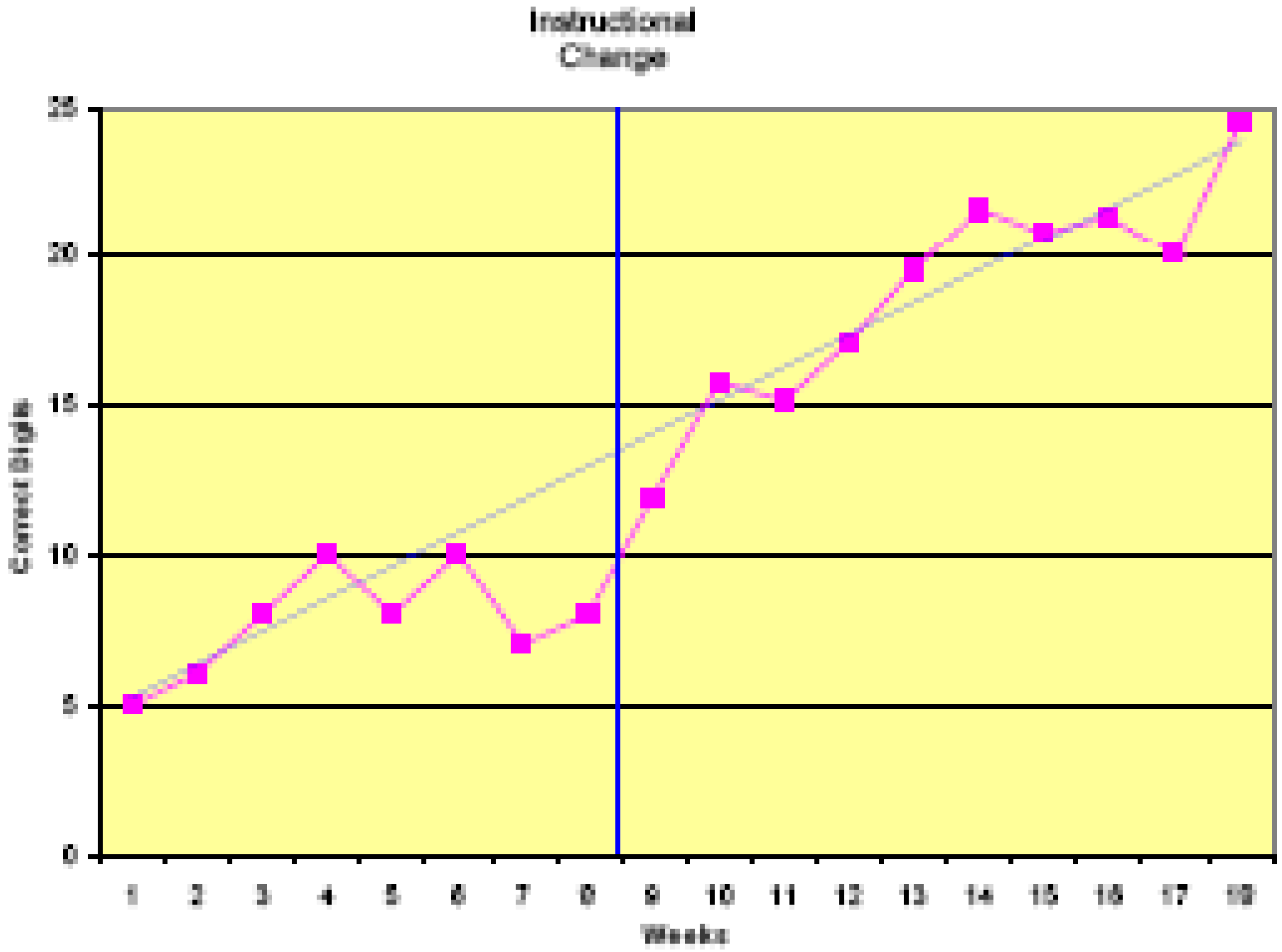
- **Criterion-referenced**
  - Based on a specific skill area
  - Can be scripted, but not necessarily
    - Brigance
    - CMT/CAPT
    - DRA
  - Diagnostic
- **Pros**
  - Determines specific skill area strengths and weaknesses
  - Connects to curriculum
- **Cons**
  - Does not reflect daily lessons
  - One shot deal

Mastery of 4th Grade Math



Types of Assessments

- **Norm-referenced**
  - Standardized or Scripted
  - Comparison to a representative group
  - Based on Bell curve
    - Primary Reading Inventory
    - Stanford Nine
    - ITBS
    - WISC III
- **Pros**
  - Determines how we compare to typical peers
- **Cons**
  - Labels us
  - Does not relate to local curriculum
  - One shot deal


Instructional
Change
Correct Digits
0
5
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15
20
25
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Weeks

Types of Assessments

- **Curriculum-based measurement**
  - Based on national and local norms
  - Systematically sample items from curriculum
    - Math Computation
    - Math Application
  - Identify a global behavior that requires various subskills
    - Oral Reading Fluency/WCPM
    - Basic Fact Fluency
- **Pros**
  - Closely connected to specific interventions and accommodations
  - On-going
  - Standardized
- **Cons**
  - Developing local norms takes time
  - Lack of comparison to true peers

Curriculum Based Measures

- Are technically adequate
- Are efficient (don’t waste instructional time)
- Are easy to administer
- Are general indicators of overall student competence in a domain
- Have multiple alternate, equivalent forms
- Are available for free download from *Intervention Central*

Other Types of Assessments

- **Curriculum-based assessment**
  - Based on specific skills
  - Closely connected to instruction
    - Running record
    - Writing samples
    - Student products
    - Common Formative Assessments
- **Pros**
  - Can determine students' instructional level
  - Directly connects to curriculum and daily lessons
  - On-going
- **Cons**
  - Consistency of assessment procedure

Other Types of Assessments

- **Observation-based assessment**
  - Based on observations of behavior/actions
  - Observable, measurable, specific
    - Scripting
    - Specific counting
      - Tallying
      - Duration
      - Time on Task
- **Pros**
  - Assesses actions beyond paper-pencil
  - Assesses context
- **Cons**
  - Observer bias
  - Not always reflective of function

Other Types of Assessments

- **Record Review** ("Heartland Area Education Agency 11", 2003)
  - Based on file reviews and permanent products
  - Examines patterns overtime
    - Cumulative File
    - Student Portfolio
    - Health Record

- **Pros**
  - Provides information of patterns over time
  - Assists in getting information from past teachers
- **Cons**
  - Can be subjective/highly interpretative
  - Can provide a bias perspective

Other Types of Assessments

- **Interviews** ("Heartland Area Education Agency 11", 2003)
  - Based on conversations, surveys, or observation checklists
  - Examines patterns in perceptions
    - Student Interview
    - Family Interviews
    - Teacher Behavior Checklist
    - Interest inventories
- **Pros**
  - Provides patterns in observations
  - Assists in understanding the whole child
- **Cons**
  - Can be subjective/highly interpretative
  - Can provide a bias perspective

Putting it Together

Components of a Monitoring System

- Measures outcomes
- Establishes targets
  - Considering benchmarks set in general education and current student performance
- Focuses on decision making to inform instruction and selection of intervention (type and intensity)
- Uses multiple assessment measures
- Uses frequent probes (at least monthly)
- Graphs and analyses data
  - Level of progress
  - Rate of progress

Establish Baseline

- Establish baseline of current level of performance
  - Determine a starting point before anything is implemented
  - Determine what the student(s) currently know(s) and is able to do

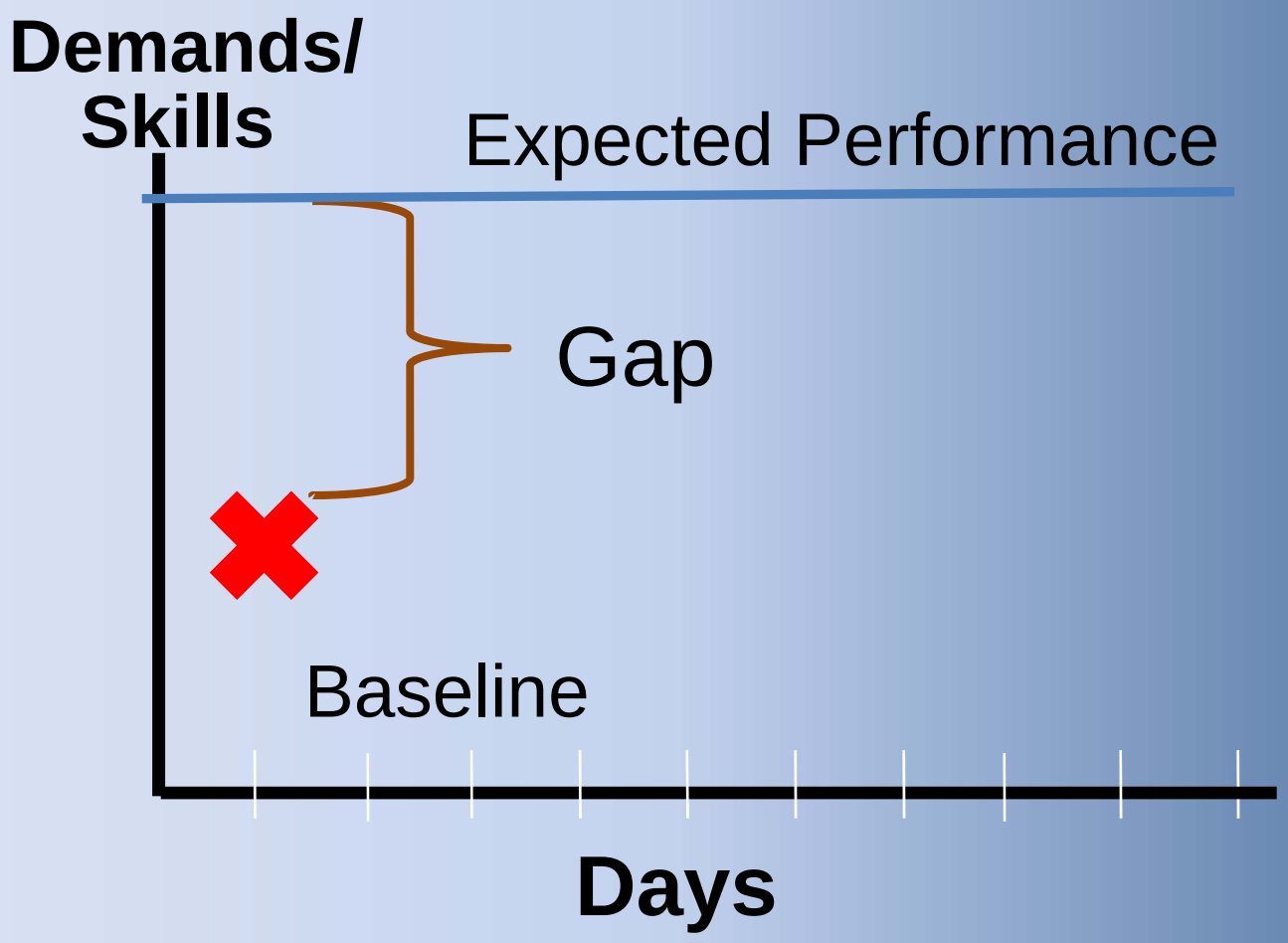
Baseline Data

- Baseline data needs to align with the focus area that is:
  - Observable (can be seen or heard)
  - Measurable (can be counted)
  - Specific (clear terms, no room for a judgment call)
- Always quantitative
- Minimum of 3 data points
- Sensitive to small changes

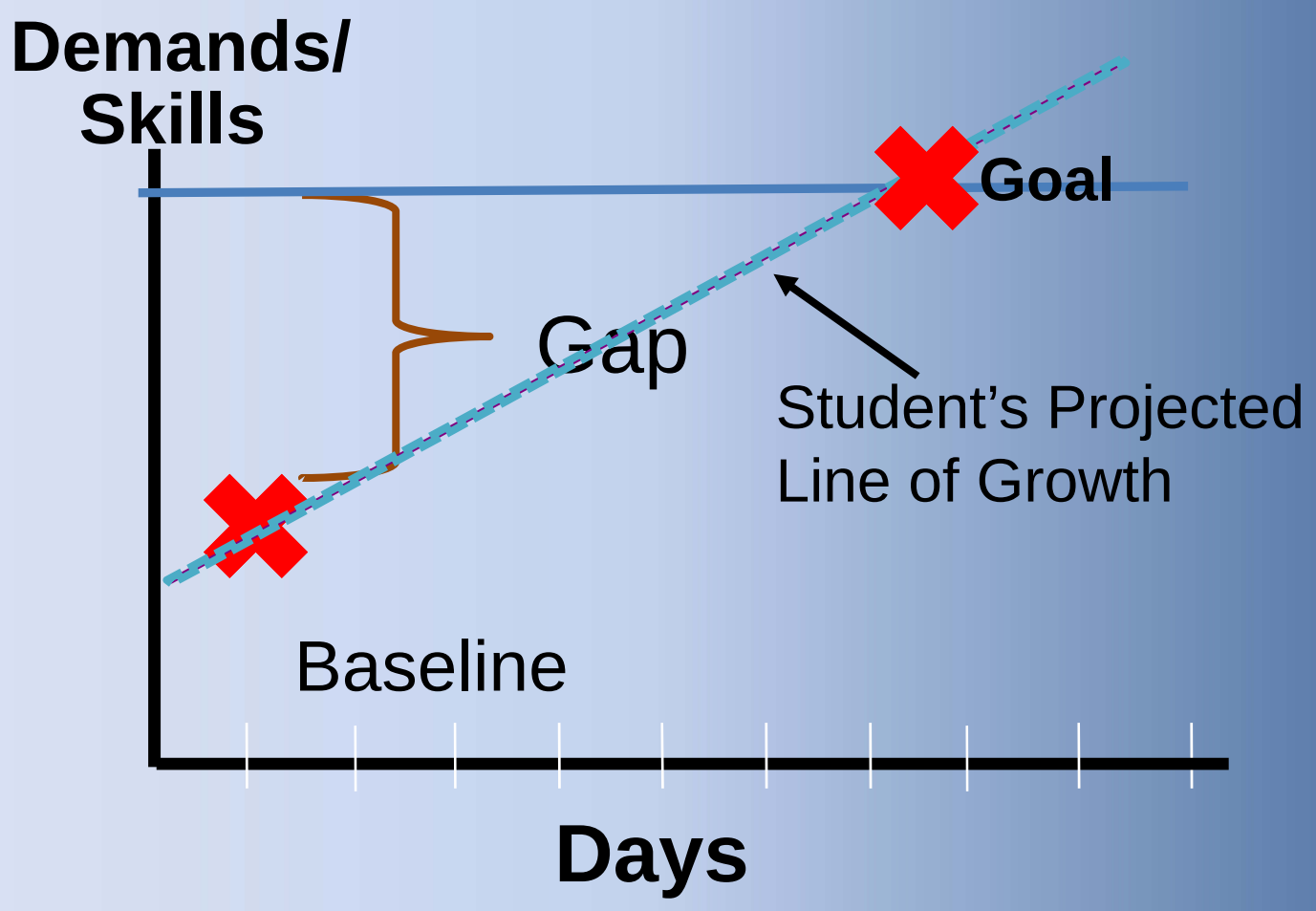
Set a Target

- Establish the expected performance level of all students
- Establish the baseline for this student
- Connect the line from the baseline to the expected performance for all students in one year
- Determine the benchmarks for this student to meet end of year grade level expectations

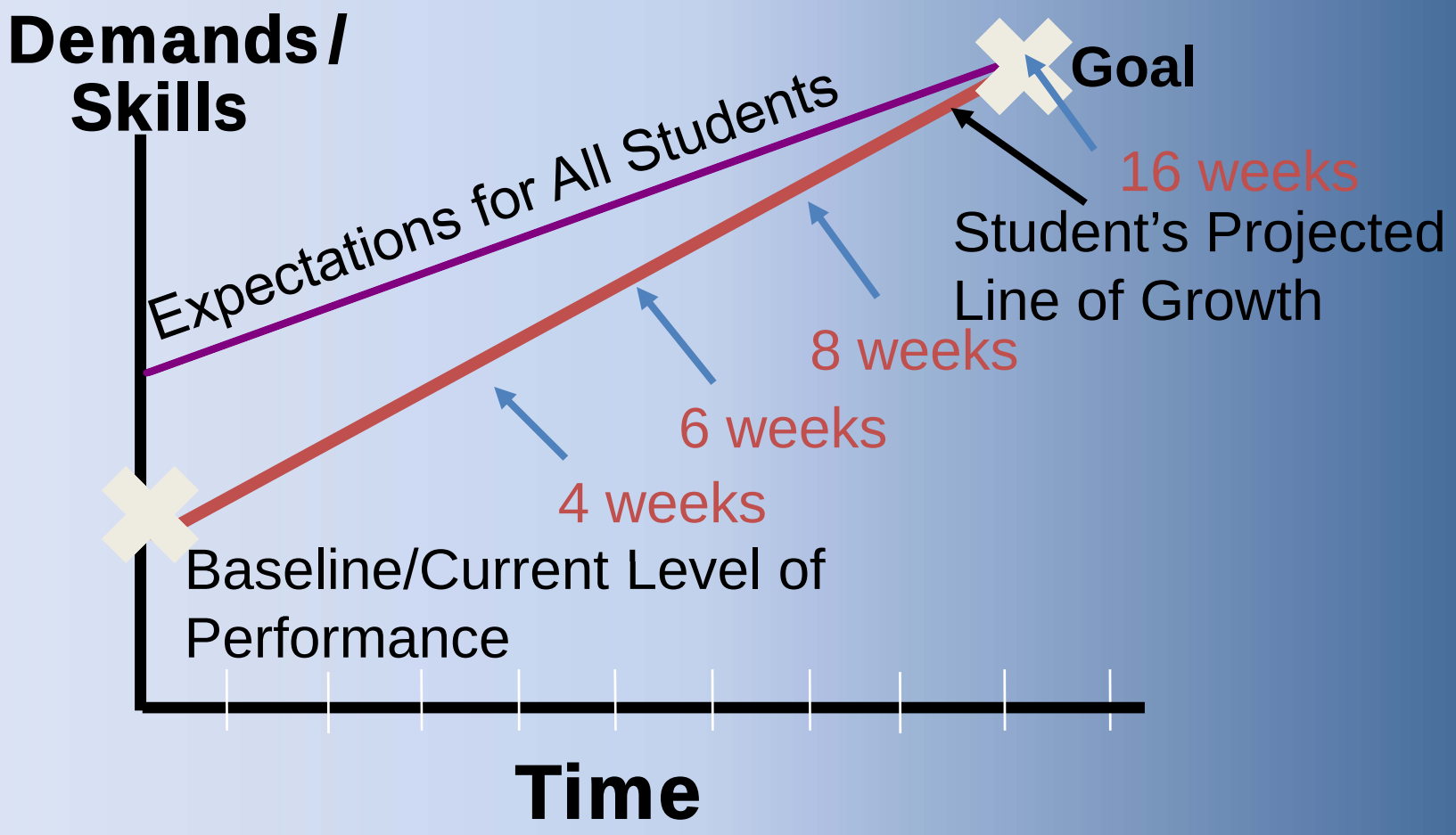
The Achievement Gaps



The Goal Line



Interval Goals



Documenting Student Progress

- Quantitative Information
  - Graphing progress (e.g., attendance, homework completion, correct words per minute, etc.)
  - Noting scores/levels and assessments used
  - Stating student growth in terms of numbers

- Qualitative Information
  - Narratives regarding objective, observable language
  - Noting the analysis of scores and the context (curriculum, instruction, and environment)

Documenting Student Progress (continued)

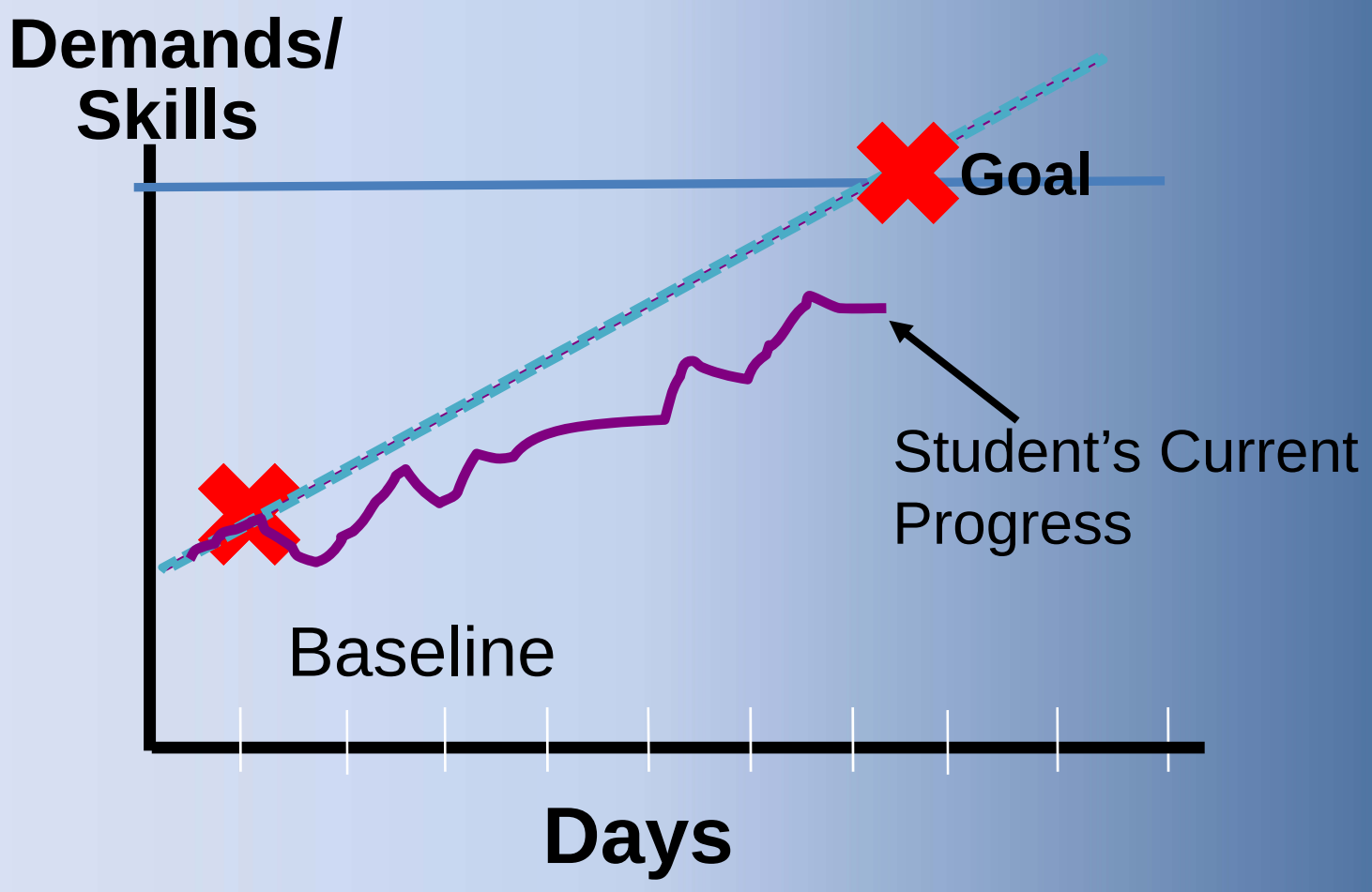
School team documentation of interventions and progress monitoring measures:

- **Reading**: Decoding, comprehension, and Fluency
- **Math**: Calculation and problem solving
- **Writing**: Written expression (developing ideas, organization, conventions of language, editing and revising)

Monitor the Progress

- Compare the level of student growth and rate of student progress:
  - Baseline
  - Benchmark
  - Grade level peers
  - Classroom peers
  - True peers
- Evaluate fidelity of implementation
- Determine efficacy of intervention

Monitoring Progress



How are Student A and Student B Doing?

- Are students making progress?
- Is the rate of growth for each student acceptable? Why or why not?
- How does the rate of growth compare to what was expected?
- What are the potential factors that are creating this growth pattern?
- Is the intervention plan working for each student? How do you know?

Figure 5.
Progress monitoring data from child NOT responding to a reading intervention

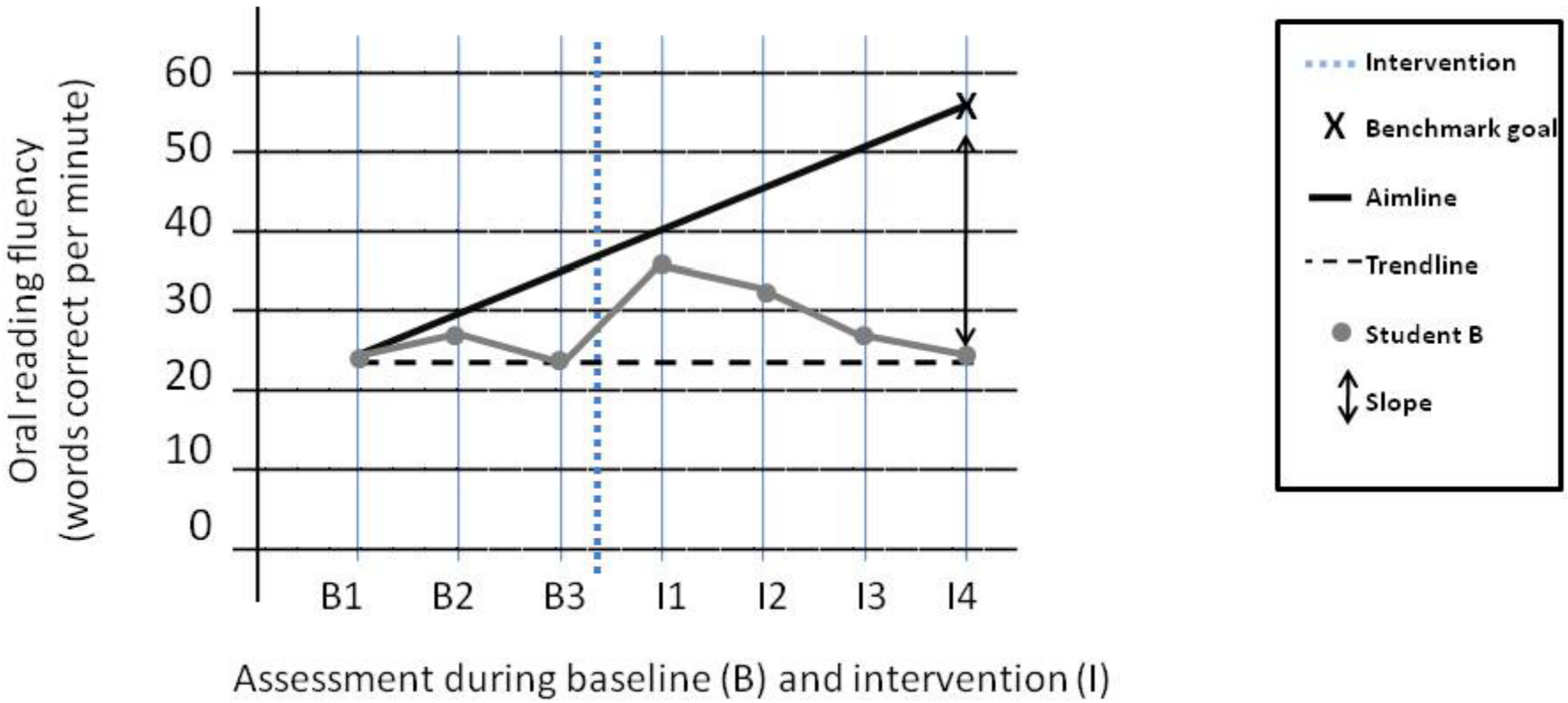
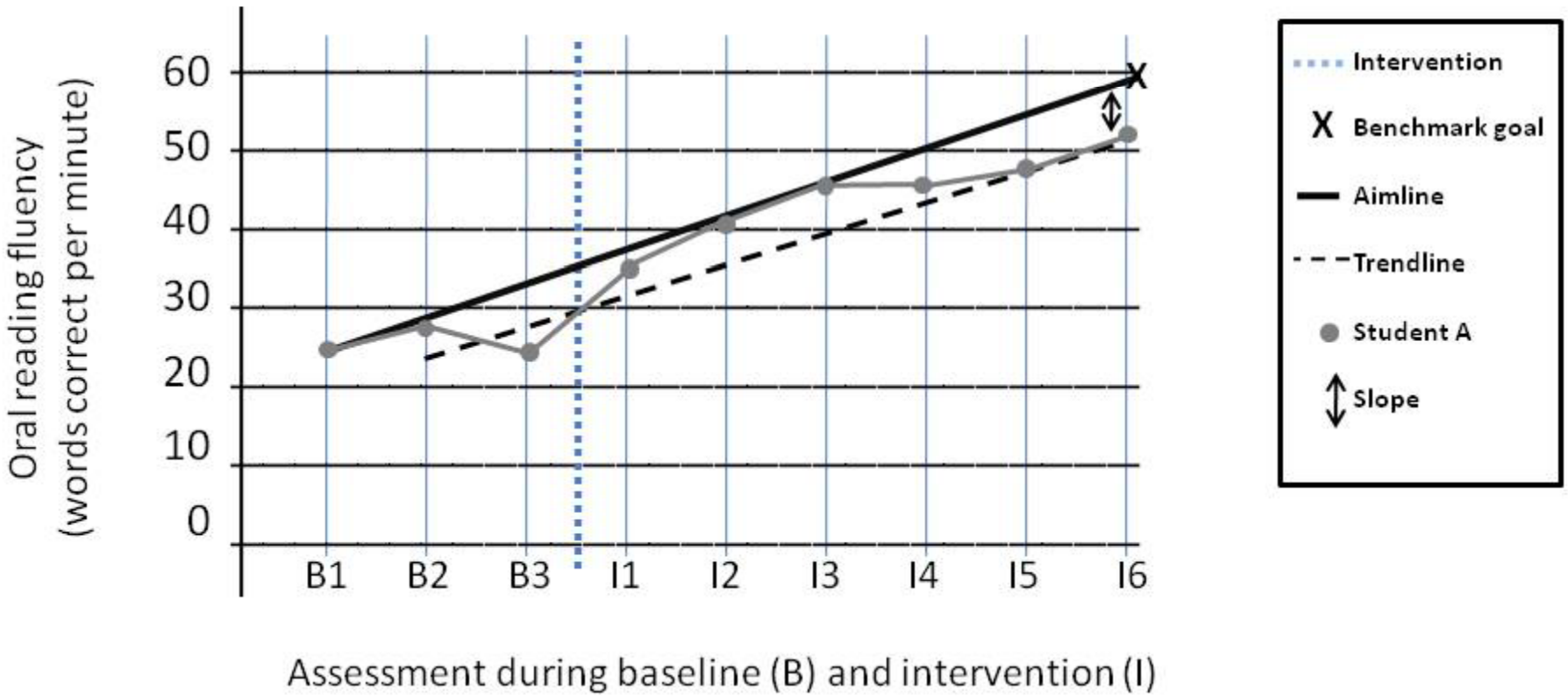


Figure 4.
Progress monitoring data from child responding to a reading intervention



Standard Decision Rules Using 4-Point Method

- If four most recent data points fall above goal line, target goal needs to be increased.
- If four most recent data points fall below goal line, intervention needs to be modified.
- If four most recent data points fall above and below goal line, continue until trendline can be applied.

Trendlines

- A trendline is a line drawn in the data path to indicate the direction (trend) of the observed behavior
- Trendlines can help monitor level of growth as well as rate of progress
- Minimum of 8 points of progress monitoring data are required to make an informed decision about student progress or lack thereof.

Standard Decision Rules Using Trend Line

- If trend line is steeper than goal line, target goal needs to be increased.
- If trend line is flatter than goal line, intervention needs to be modified.
- If trend line and goal line are fairly equal, determine if intensity of intervention is adequate or maintain intervention.

Slope

- The slope of trendline indicates rate of improvement
- The difference between goal line and trend line (level and rate) becomes the marker to determine responsiveness to intervention
- Difficult decisions will need to be made based on time in students' educational career (e.g., 9th grader vs. 1st grader)
- This data may be utilized as part of the comprehensive evaluation process to determine eligibility for special education

Examining Data

- All students screened at regular intervals
- Principal has access to all school data
  - Where are we doing well? What do we need to replicate?
  - Where are we falling short overall?
  - What types of support are needed at each grade level (curriculum review, PD, personnel/expertise)?

Examining Data

- Teachers have access to overall class data at grade level
  - Where are we doing well? What do we need to replicate or do more of?
  - Where are we falling short overall?
  - What types of support are needed (materials, coaching, literacy support)?
  - What instructional strategies should be utilized at this time?

Examining Data

- Teachers have access to individual student data from class
  - Which students are doing well? Why?
  - Which students are struggling? Why?
  - What types of support are needed (materials, coaching, supplemental interventions)?
  - How will we determine interventions, align resources, and monitor student progress?

Indicators of Collaborative Strategic Decision-Making

- Identify the focus area for improvement
- Determine the desired outcome
- Generate alternative strategies
- Examine strategies for impact & feasibility
- Develop a plan of action that includes a monitoring system
- Implement the plan & monitor student progress
- Evaluate student progress & the plan

SERC/EIP, 2004

Considering Fidelity

- How is fidelity of instruction/intervention currently being monitored?
- How can this become a routine part of school environment (e.g., walkthroughs)?
- Even though is might appear to create adversarial relationships, how can this lead to more open dialogue and better instructional methods?

SRBI Planning Tool

Working with your teammates, discuss the following questions and record your responses on the *SRBI Planning Tool*.

- Regarding your districts progress monitoring status:
  - What is your current state?
  - What is your desired state?
  - What are your next steps?

SRBI Action Plan

Based on new learning from:

- information/content shared
- training materials/resources
- personal reflections
- gap analysis completed for each component
- assessment inventory
- resource mapping

What will be your team's initial next steps for the use of SRBI as an organizational framework for improved student outcomes in your school/district?