

Teachers' Use of Data to Improve Teaching and Learning

August 13, 2009



Data rich.

Information poor.



Outline of the Brief

- How the expectation of data use impacts the classroom teacher
- The multiple types of data and their significance in informing teaching and learning
- How to best support teachers' use of data at the local, state, and federal level
- Federal policy recommendations



New Expectations For Teaching

- Taking responsibility for the achievement of all students
- Shifting from, “Have my students learned?” to “How do I fill in the gaps for what EACH student doesn’t understand?”
- Employing assessment and data literacy skills
- Working collaboratively with colleagues



Having access to data does not necessarily mean using data.

Using data does not necessarily mean using data effectively.



Unintended Consequences

- Misdiagnosing students' learning problems
- Inappropriately attributing data results
- Tutoring to the “bubble students”
- Tracking
- Drilling on test items
- Narrowing the curriculum



High School Specific Challenges

- Culture of subject matter departments
- Number of students for whom a teacher is responsible
- School structure
- Planning time

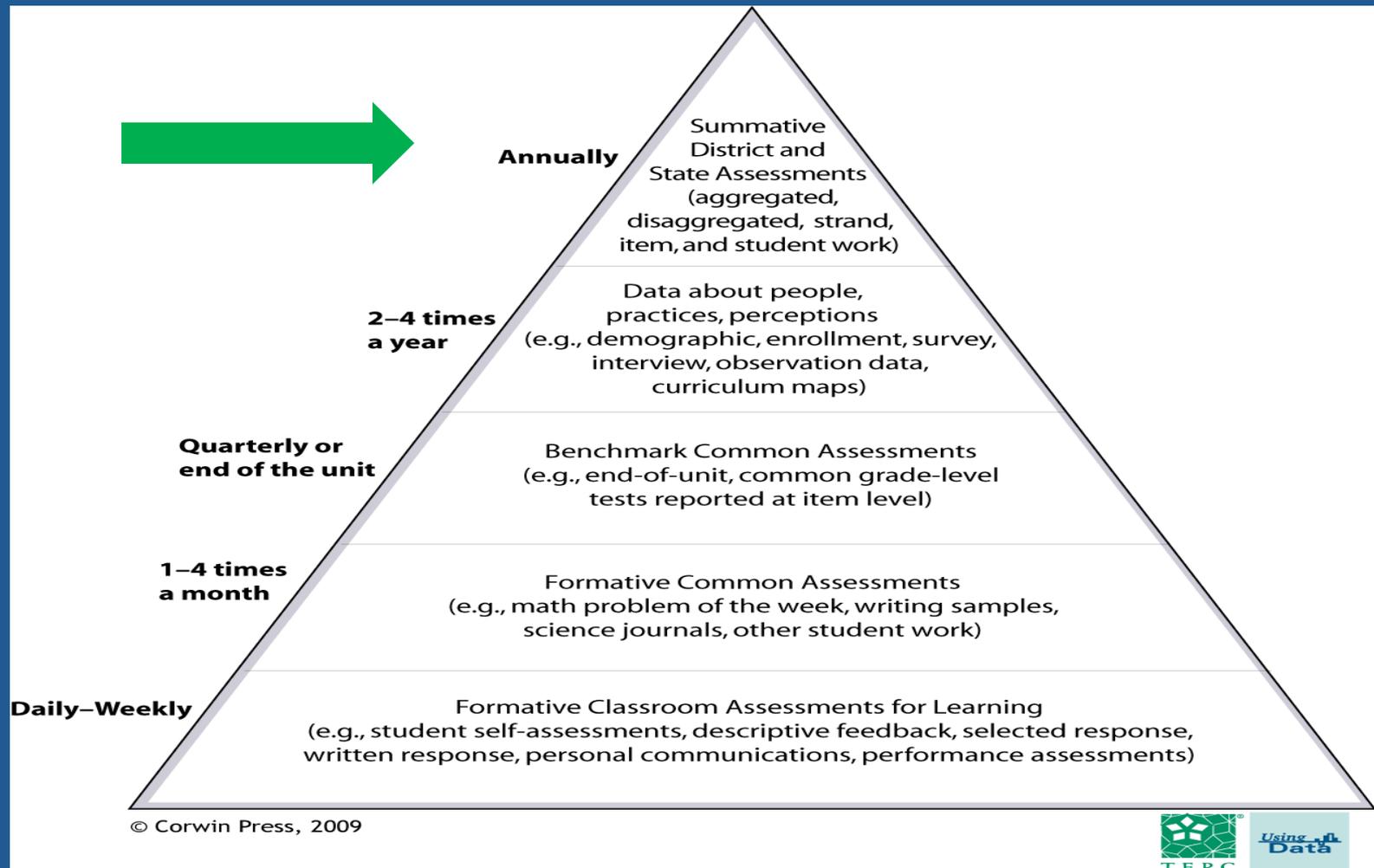


What Do We Mean By Data?

- Assessment Data
 - Summative
 - Interim
 - Formative
- Other Types
 - Surveys
 - Attendance
 - Discipline
 - Enrollment
 - Course taking
 - Etc.



Need for Multiple Types of Data



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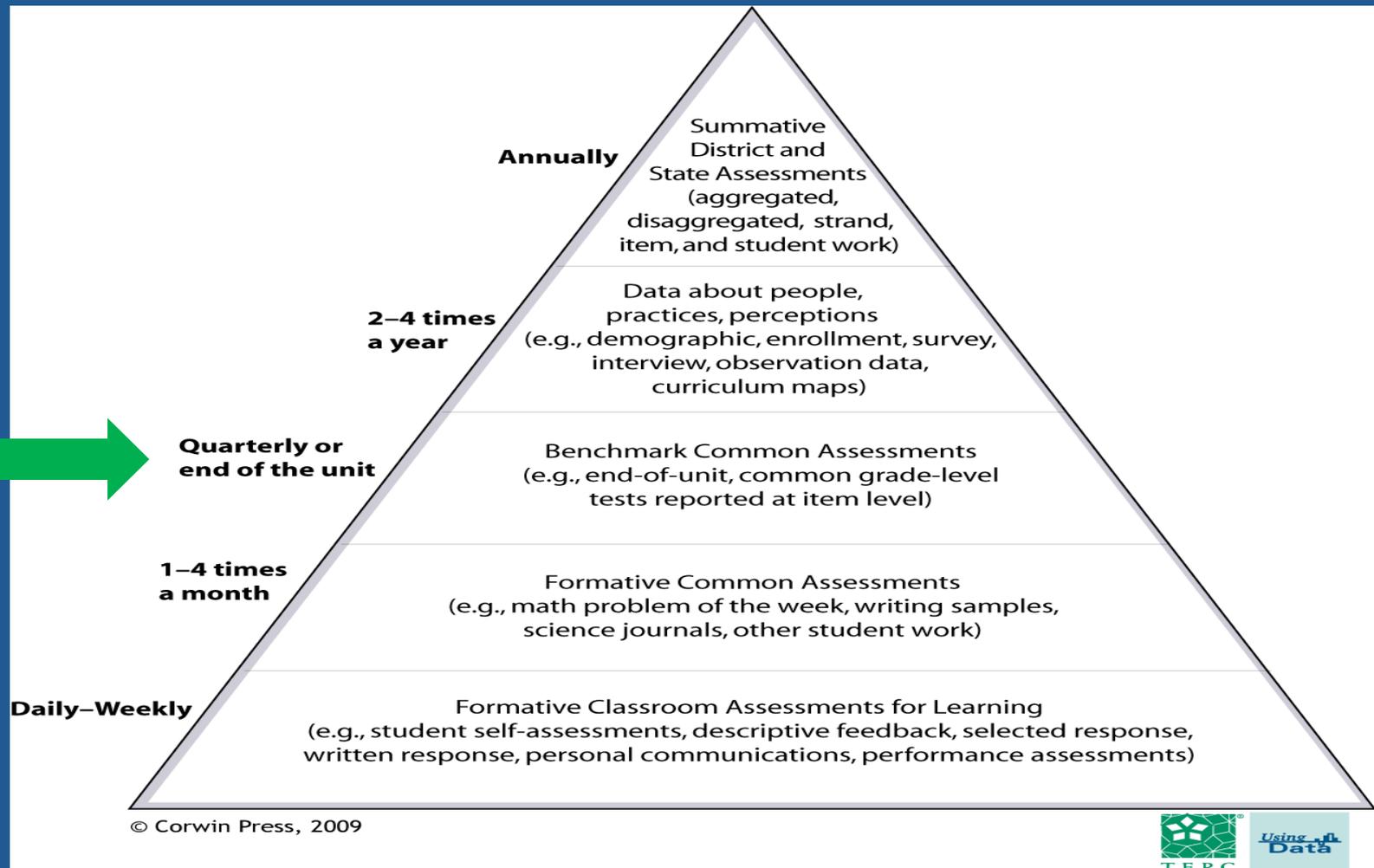
Summative Assessment

Describes what a student has learned after teaching has been completed.

- May provide information about incoming students, inform the planning of interventions, and general unit planning decisions.
- Not useful for making daily adjustments to classroom instruction.
- Not often aligned to college and career ready standards.



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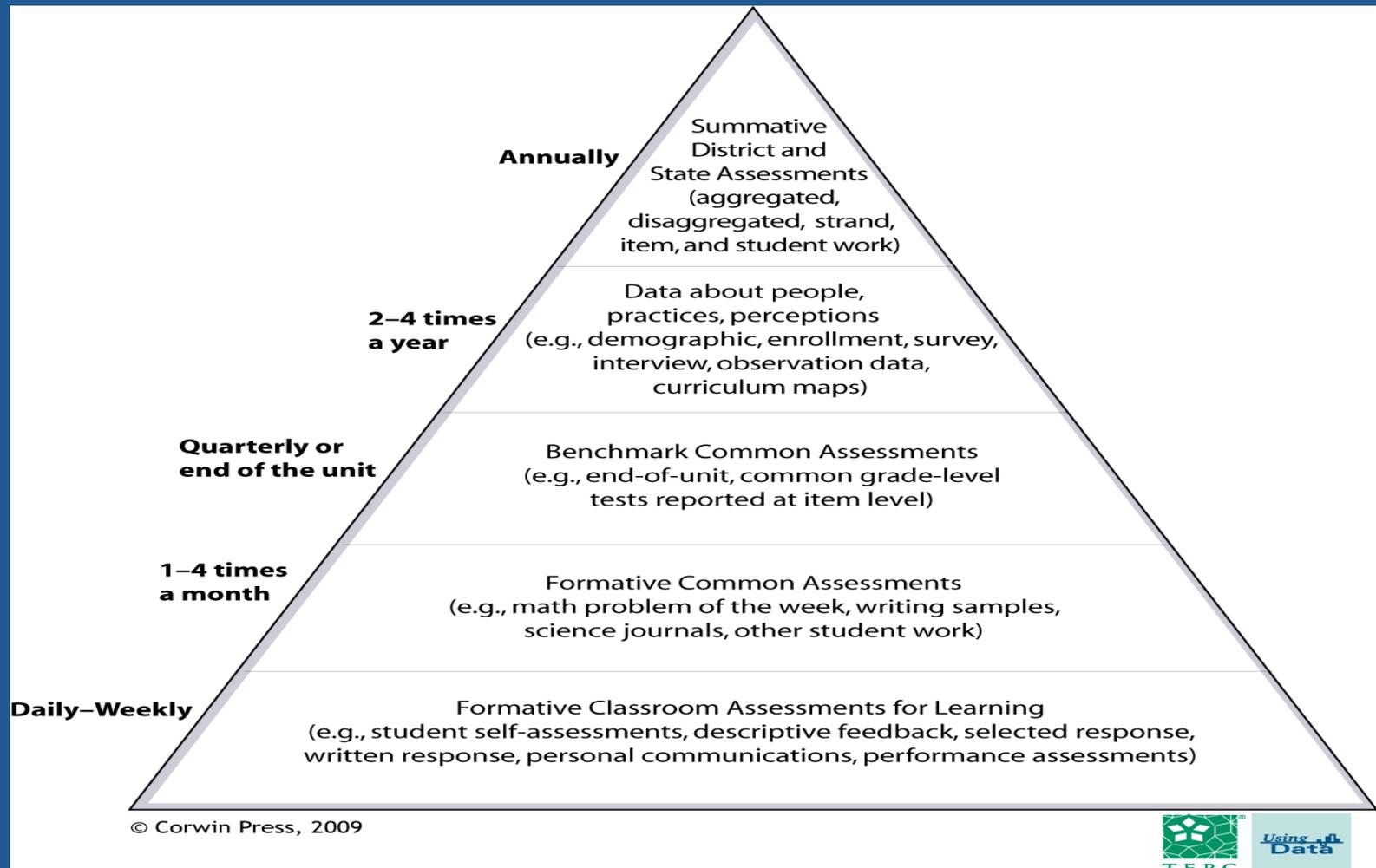
Interim Assessment

Evaluates students' knowledge and skills relative to standards and are administered over a more limited time frame (often every 5 to 9 weeks).

- May illuminate the strengths of an individual student or predict student achievement on a future assessment.
- Often are mistimed and misaligned with instructional needs in the classroom.



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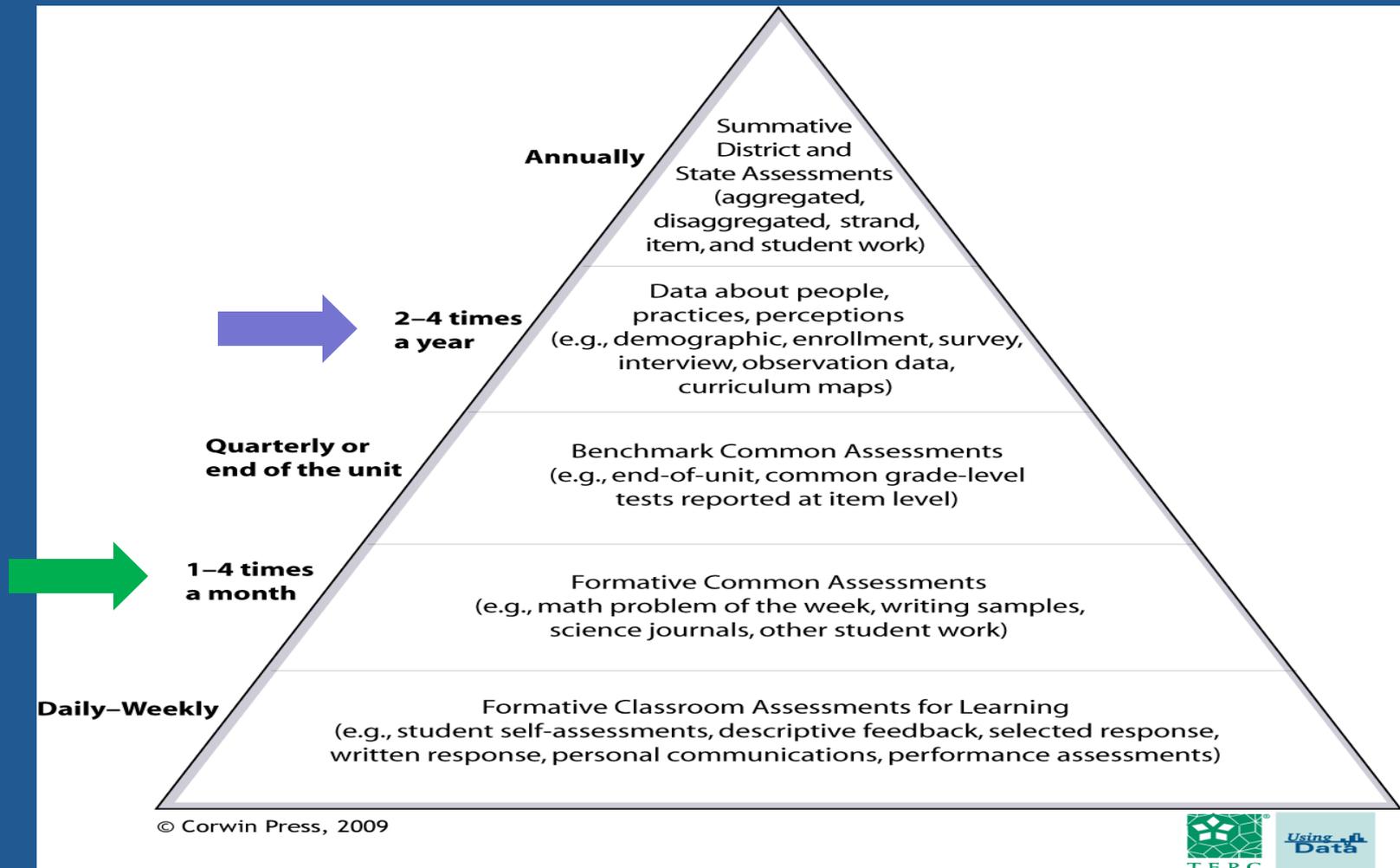
Formative Assessment

Process whereby teachers diagnose where individual students are in their learning and adjust instruction to ensure that all students are mastering the desired outcomes.

- Provides immediate feedback to modify and differentiate instruction.
- Teachers must have strong content knowledge, know how to imbed assessment into instruction, understand the learning objectives and progressions, and how to “re-teach.”



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Supporting Teachers' Use of Data

- School level
 - Provide PD (assessment and data literacy, TA, content)
 - School Structures
 - School Leader(s)
 - Data Coach

- District level
 - Purchase and manage data systems
 - Model data use
 - Provide school based support positions
 - Share best practices
 - Align curriculum and standards



Supporting Teachers' Use of Data (cont.)

- State level
 - Enact and support relevant policies
 - Provide high quality PD
 - Encourage partnerships between teacher preparation programs and districts
 - Model effective data use through use of balanced assessment systems



Federal Policy Recommendations

- Provide incentives for states to adopt and implement common standards.
- Ensure summative assessments are aligned to the state-led common standards effort.
- Support pre-service and in-service training for teachers to use data to improve student achievement.
- Support innovative school structures that allow for data use in the classroom.
- Invest in research.



