

Multiple Measures, Multiple Uses

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Overview

- Provide an overview of potential uses of data by level of education system (Table 1).
- Briefly describe the types of measures that can be used to meet each purpose (at student, teacher and school levels) (Tables 2 - 4).
- Show similarities and differences in types of measures for common purposes across the three levels (Table 5).
- Use the term “measure” broadly to talk about types of data collected from different kinds of assessments rather than specific ways of measuring student knowledge.

Major Points

- There has been an expansion of uses of measures over time (most recently teacher and principal evaluation and accountability).
- Different uses (e.g., diagnosis, external accountability) embody different technical requirements for measures and how they are combined (e.g., standardization, reliability, validity).
- Different uses call for data collection at different points in time.
- Aggregation of data across levels of the system also raises a set of design and technical issues.

Table 1: Uses of Multiple Measures

Uses	Student	Teacher	School
Diagnosis	Instructional decisions Placement Allocation of educational services	Professional development and support	Resource allocation Technical assistance
Inform teaching/ learning		Focus, align, redirect content and instructional strategies	Focus on, align curriculum to skills/content School improvement planning
Evaluation	Certification of individual achievement	Teacher performance	Program evaluation Principal evaluation
Public Reporting		Teacher performance	School performance Parent or community action
External Accountability	Course credit Promotion High school graduation	Renewal Tenure Pay	School sanctions and rewards Principal renewal, pay

Table 2: Multiple Measures: Students

Uses	Uses	Measures
Diagnosis	Instructional decisions Placement Allocation of educational services	Teacher evaluation of student work <ul style="list-style-type: none"> • Teacher observation • Teacher assignments • Homework • Teacher-made tests • End-of-unit tests Grades Benchmark tests (district/state) Annual tests (district/state) Behavioral measures (attendance, etc.)
Inform teaching/ learning		
Evaluation	Certification of individual achievement	Grades Teacher evaluation of student work Transcripts Annual tests (district/state) High school graduation tests (“Comprehensive”/End-of-course)
Public Reporting		
External Accountability	Course credit Promotion High school graduation	Grades Teacher evaluation of student work Attendance Transcripts Annual tests (district/state) High school graduation tests (“Comprehensive”/End-of-course)

Table 3: Multiple Measures: Teachers

Uses	Uses	Measures
Diagnosis	Professional development and support	Observation of practice Student grades Student tested achievement <ul style="list-style-type: none"> • Benchmark tests (district/state) • Annual tests (district/state) Student behavior (attendance, etc.)
Inform teaching/learning	Focus, align, redirect content and instructional strategies	At classroom level: Student work Teacher-made tests End-of-unit tests Benchmark tests (district/state) Annual tests (district/state)
Evaluation	Teacher performance	Observation of practice <ul style="list-style-type: none"> • District rubrics • State rubrics Student tested achievement <ul style="list-style-type: none"> • Annual tests (district/state) • Status/growth
Public Reporting	Teacher performance	Rating of teacher performance (combination of measures of practice, student tested achievement) Student tested achievement
External Accountability	Renewal Tenure Pay	Rating of teacher performance (combination of measures of practice, student tested achievement) Student tested achievement

Table 4: Multiple Measures: Schools

Uses	Uses	Measures
Diagnosis	Resource allocation Technical assistance	Observation of teacher practice Evaluation of student work Student tested achievement <ul style="list-style-type: none"> ● Benchmark tests (district/state) ● Annual tests (district/state) Student behavior (attendance, etc.) School climate (student, teacher, parent surveys)
Inform teaching/ learning	Focus on, align curriculum to skills/content School improvement planning	Across classrooms: Observation of teacher practice Evaluation of student work Benchmark tests (district/state) Annual tests (district/state)
Evaluation	Program evaluation Principal evaluation	Observation of teacher practice Student tested achievement <ul style="list-style-type: none"> ● School-designed tests ● Benchmark tests (district/state) ● Annual tests (district/state) ● Status/growth Student behavior (attendance, etc.) Observation of principal practice <ul style="list-style-type: none"> ● District rubrics ● State rubrics
Public Reporting	School performance Parent or community action	Student tested achievement ; graduation rates Student attendance School climate
External Accountability	Principal: Renewal, pay School: rewards and sanctions	Rating of teachers, principal Student tested achievement; attendance; graduation rates School climate measures

Table 5: Multiple Measures across Levels

Uses	Student	Teacher	School
Diagnosis	<p>Teacher evaluation of student work</p> <p>Grades</p> <p>Benchmark tests (district/state)</p> <p>Annual tests (district/state)</p> <p>Student behavior (attendance, etc.)</p>	<p>Observation of practice</p> <p>Student grades</p> <p>Benchmark tests (district/state)</p> <p>Annual tests (district/state)</p> <p>Student behavior (attendance, etc.)</p>	<p>Observation of teacher practice</p> <p>Evaluation of student work</p> <p>Benchmark tests (district/state)</p> <p>Annual tests (district/state)</p> <p>Student behavior (attendance, etc.)</p> <p>School climate (student, teacher, parent surveys)</p>
Inform teaching/ learning		<p>At classroom level:</p> <p>Evaluation of student work</p> <p>Benchmark tests (district/state)</p> <p>Annual tests (district/state)</p>	<p>Across classrooms:</p> <p>Observation of teacher practice</p> <p>Evaluation of student work</p> <p>Benchmark tests (district/state)</p> <p>Annual tests (district/state)</p>
Evaluation	<p>Grades</p> <p>Teacher evaluation of student work</p> <p>Transcripts</p> <p>Annual tests (district/state)</p> <p>High school graduation tests (“Comprehensive”/End-of-course)</p>	<p>Observation of practice</p> <p>Annual tests (district/state)</p> <ul style="list-style-type: none"> Status/growth 	<p>Observation of teacher practice</p> <p>School-designed tests</p> <p>Benchmark tests (district/state)</p> <p>Annual tests (district/state)</p> <ul style="list-style-type: none"> Status/growth <p>Student behavior (attendance, etc.)</p> <p>Observation of principal practice</p>

Table 5: Multiple Measures across Levels

Uses	Student	Teacher	School
Public Reporting		Student tested achievement Rating of teacher performance	Student tested achievement Rating of teacher performance Student attendance School climate measures (student, teacher, parent surveys)
External Accountability	Grades Teacher evaluation of student work Attendance Transcripts Annual tests (district/state) High school graduation tests (“Comprehensive”/End-of-course)	Rating of teacher performance Student tested achievement	Rating of teachers, principal Student tested achievement Student attendance Graduation rates School climate measures (student, teacher, parent surveys)