Standard 12: Assessment and Data

What consumers need to know about teacher preparation

To learn more about how programs are scored on this standard, including how individual indicators are satisfied, please see its scoring methodology.

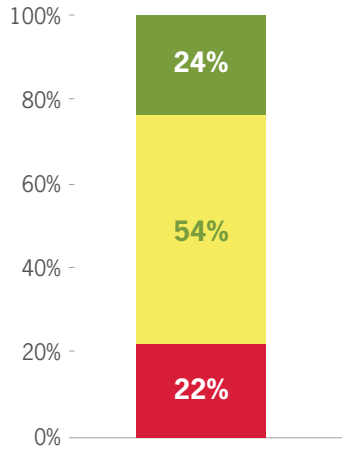
For examples of model materials on this standard, please see the resources section.

Great teachers know what concepts and skills their students have mastered and what they still have trouble understanding. Not surprisingly, there is increasing evidence that the better a teacher becomes at pinpointing what students need to learn, the better the students do learn. The development of assessments (e.g., quizzes), as well as the capacity to analyze and interpret assessment results to improve instruction, are explicit skills teacher candidates should have an opportunity to practice.

Coursework and assignments representing the culmination of a candidate's preparation are examined to check that elementary and secondary teacher candidates have an opportunity to practice developing their own assessments, analyzing student assessment results and applying their analysis to lesson planning. We also check to see that candidates have an opportunity to practice analyzing student data in teams, because schools are increasingly fostering a collaborative approach to teaching. The "strong design" 🏆 indicator evaluates the structure of coursework in which preparation related to assessment is provided, examining whether a core assessment course is complemented by coverage of subject-specific assessment topics in methods courses.

Overview

Distribution of scores on Std. 12: Assessment and Data
(N=690 elementary and secondary programs)



● or ◕
Provides teacher candidates with practice in developing assessments and analyzing and interpreting assessment data.

◑
Provides teacher candidates with some practice in developing assessments and analyzing and interpreting assessment results.

◔ or ○ (zero)
Provides teacher candidates with no or virtually no practice in developing assessments or analyzing and interpreting assessment results.

Sample for this standard

Our original intent in the first edition of the Review was to evaluate on this standard all programs about which we received data. We reluctantly decided not to do so after determining that document processing and analysis was imposing too great a burden. Instead, we established a time limit for analysis that would nonetheless ensure that we could evaluate a sample of sufficient size to provide credible information about the nature of teacher preparation in this area. Once this time limit was established, we prioritized the evaluation of programs in IHEs that produce larger numbers of teachers each year or have national reputations for teacher preparation. We also included as many programs as possible in selected states, such as Oregon, in which the state has played a particularly strong role in promoting teacher preparation in assessment.

The only analysis on this standard conducted for the second edition of the *Review* was for programs that submitted new data.

Why do programs fail to meet the Assessment and Data Standard?

- *Teacher preparation programs do not require that teacher candidates analyze or interpret data from standardized assessments.* While the state's standardized tests are a topic of instruction in coursework in nearly half of all programs, few programs have assignments in coursework or capstone projects that require that teacher candidates grapple with data from those tests and get practice using the data to plan instruction.
- *Most of the assessment-related practice required of teacher candidates is individual practice.* While teaching is an increasingly collaborative profession, we find little evidence of collaborative practice in assessment-related assignments in most of the coursework evaluated.
- *Course assignments and capstone projects do not require teacher candidates to develop a full range of classroom assessments.* Practice in preparing *both* formative and summative assessments is important.

Programs earning the "Strong Design" designation

No programs in the sample satisfy the standard's "strong design" indicator.

Programs of distinction

The following programs that meet the standard stand out for their attention to ensuring that teacher candidates practice analyzing and interpreting both classroom and standardized assessment data:

✔+ **Fort Hays State University's** undergraduate elementary program requires a performance assessment in which teacher candidates develop and use both formative and summative assessments, analyze the resulting data alongside their students' state standardized assessment data, and plan lessons based on that analysis. The program also requires a course in which teacher candidates, both individually and in groups, use a set of mock classroom and standardized assessment data to conduct an analysis and plan for future instruction.

✔+ **University of Louisiana at Lafayette**'s undergraduate elementary and undergraduate secondary programs require a project in student teaching in which teacher candidates develop and use both formative and summative assessments, analyze the resulting data with their cooperating teachers, and adjust their teaching strategies according to the assessment results. This project also requires teacher candidates to analyze their students' standardized test data with a cooperating teacher and decide on an instructional strategy that would help improve student learning.

✔+ **CUNY Hunter**'s graduate elementary program is one of only three graduate programs in the sample to meet the standard. This program's assessment course requires a series of assignments in which the teacher candidates develop and implement formative and summative assessments, and then inform their instruction with analysis of results from their field classrooms from both classroom and standardized assessments. The course also requires a series of lab assignments in which teacher candidates work in groups to develop assessment items as well as analyze standardized and classroom assessment data to determine instructional implications.

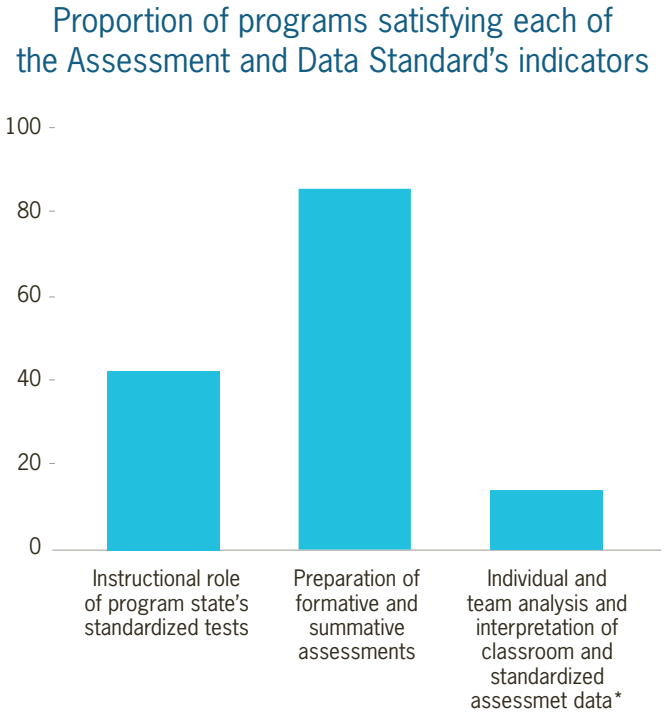
More information about data and assessment

While the general distribution of scores on this standard do not differ significantly across different types of programs, a larger proportion of graduate elementary programs (33 percent) fail to meet the standard compared to programs in undergraduate elementary, undergraduate secondary or graduate secondary programs.[1]

The discussion that follows addresses program performance on each of the standard's indicators:

- The instructional role of standardized tests, particularly the program state's standardized tests, is addressed in instruction.
- Teacher candidates prepare formative and summative assessments.
- Teacher candidates participate in individual and team analysis and interpretation of classroom and standardized assessment data.

1 NCTQ's report *What Teacher Preparation Programs Teach About K-12 Assessment* (May 2012) (access at: http://www.nctq.org/dmsStage/What_Teacher_Prep_Programs_Teach_K-12_Assessment_NCTQ_Report) evaluated 180 programs in 30 states on how well coursework and capstone projects prepared teacher candidates in three domains: 1) Assessment Literacy, 2) Analytical Skills, and 3) Instructional Decision-Making. All the programs evaluated for the report are included in the sample of programs scored on the **Assessment and Data Standard** in the *Review*. However, because the evaluation process and scale used in the report are different from those used for this standard in the *Review*, and because the bar was set higher for programs in the report, results are not directly comparable.



* This indicator can be partially satisfied and the proportion shown is the proportion of programs that do so (n=94) as well as those that fully satisfy the indicator (n=2).

While a large majority of programs evaluated require that their candidates prepare both formative and summative assessments, only a small minority require even minimal analysis and interpretation of classroom and standardized assessment data.

The instructional role of standardized tests, particularly the program state's standardized tests, is addressed.

While 59 percent of all programs address standardized testing of some type, only 42 percent specifically address the instructional role of the program state's standardized testing system, and the latter is the instruction on which a program is evaluated. We note that determinations on this indicator are used for reporting purposes only, not for scoring a program on this standard.

✔+ **Valdosta State University**'s (GA) undergraduate secondary program includes an unusually substantive assignment involving **Georgia**'s state standardized tests, the Criterion-Referenced Competencies Test (CRCTs): Teacher candidates analyze the Georgia Performance Standards (GPS) and compare them to the expectations of the CRCTs. Teacher candidates must also analyze how the No Child Left Behind (NCLB) statute mandates affect instructional priorities in the context of the GPS and CRCTs.

Preparation of formative and summative assessments

Eighty-five percent of all programs in the sample require that teacher candidates prepare both formative and summative classroom assessments and thereby satisfy the indicator. About 11 percent of programs require only that teacher candidates prepare summative classroom assessments, and less than 1 percent require only the preparation of formative assessments. Very few (3 percent) programs in the sample do not require preparation of either type of classroom assessment.

✔+ **Northwestern Oklahoma State University**'s undergraduate elementary and undergraduate secondary programs require an assessment course in which teacher candidates prepare at least two different types of formative assessments as part of a unit of instruction delivered in their field classrooms. Teacher candidates must use the results of these assessments both to advise students of their progress throughout the unit and to redirect their own instruction during the unit. This assignment also requires that teacher candidates create an end-of-unit summative assessment to measure student learning gains from the beginning of the unit.

In addition to the preparation of assessments in this core assessment course, the elementary program's methods courses in math, science and social studies include explicit requirements for the development of assessments in lesson and unit planning assignments.

Individual and team analysis and interpretation of classroom and standardized assessment data.

For evaluation purposes, this indicator is considered as eight distinct activities, with partial credit on the indicator awarded for completion of four to seven activities. The eight cells in the graphic below represent the eight distinct activities.

Eight activities required by Indicator 12.3: Individual and team analysis and interpretation of classroom and standardized assessment data

	Classroom assessment data		Standardized assessment data	
	Analyze	Interpret	Analyze	Interpret
Individual	✔	✔	✔	✔
Team	✔	✔	✔	✔

Only two programs in the sample fully satisfy the indicator by requiring teacher candidates to complete all eight activities, and only about 14 percent of the programs evaluated require teacher candidates to complete assignments or projects that address a majority of the activities.

Full credit for Indicator 12.3

✔+ **Fort Hays State University**'s undergraduate elementary program requires a core assessment course in which teacher candidates conduct individual and collaborative analyses of mock formative classroom and standardized assessment data and discuss the instructional implications of that data both in individual reports and as part of a collaborative group assignment.

As the table below indicates, these assignments give the program credit for all of the activities evaluated under this indicator:

Fort Hays State University undergraduate elementary program score on Indicator 12.3	Classroom assessment data		Standardized assessment data	
	Analyze	Interpret	Analyze	Interpret
Individual	✔	✔	✔	✔
Team	✔	✔	✔	✔

Partial Credit for Indicator 12.3

✔+ The **University of North Carolina at Charlotte**'s undergraduate elementary program includes an assessment course that requires teacher candidates to analyze school improvement plans (which include standardized assessment data) and classroom assessment data individually and in teams. It also has teacher candidates complete an individual "impact on student learning" project in which teacher candidates disaggregate and analyze classroom assessment data and use that analysis to plan for future instruction.

As the table below indicates, these assignments give the program credit for a majority of the activities evaluated under this indicator:

University of North Carolina at Charlotte undergraduate elementary program score on Indicator 12.3	Classroom assessment data		Standardized assessment data	
	Analyze	Interpret	Analyze	Interpret
Individual	✔	✔	✔	
Team	✔	✔	✔	

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