



Formative assessment policies, programs, and practices in the Southwest Region





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Prepared by

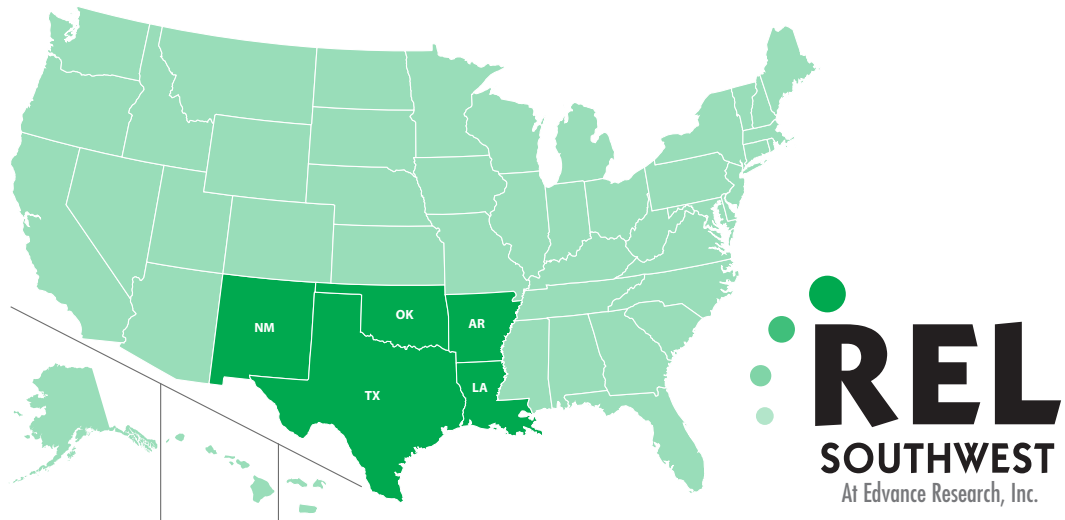
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Summary

Formative assessment policies, programs, and practices in the Southwest Region

Formative assessments help educators target instructional practices to meet specific student needs and monitor and support student progress toward valued state learning outcomes. Policies and programs in the five Southwest Region states suggest a range of strategies to support the development and use of formative assessments.

This report describes state formative assessment policies, programs, and practices in the five states covered by the Southwest Regional Educational Laboratory: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. Formative assessments, unlike summative assessments, yield descriptive data—not judgments. They are used diagnostically and to improve instruction—not, for example, to assign end-of-course grades (Wiggins, 1998).

Such distinctions are reflected in a definition of formative assessment recently adopted by the Council of Chief State School Officers: “An assessment is formative to the extent that information from the assessment is used, during the instructional segment in which the assessment occurred, to adjust instruction with the intent of better meeting the needs of the students assessed” (Popham, 2006). This definition was used to guide the collection of formative assessment data for this study.

A systematic examination uncovered disparities in how states define formative assessment. Arkansas, Louisiana, and New Mexico have formal definitions—but the definitions differ, suggesting that Southwest Region states view formative assessment through slightly different lenses. (No formal definitions were discovered for Oklahoma or Texas.)

Researchers found no study that specifically explored the effects of formative assessment policy on local practice. But related research on school reform (Darling-Hammond & McLaughlin, 1995), assessment reform (Chudowsky & Pellegrino, 2003; Stiggins, 2002), and accountability (Goodwin, Englert, & Cicchinelli, 2003) suggests that explicitly communicating a clear, consistent message about effective practices facilitates cross-district consistency with the state’s education goals.

Three Southwest Region states have been most explicit in communicating their intent for formative assessment to stakeholders through state policies or mandates, state-supported programs or products, or allotments of services and resources to districts:

- Arkansas’ House Bill 2253, although currently withdrawn pending further study, calls for a two-year pilot using formative assessments statewide.

- Louisiana's Enhanced Assessments of Grade-Level Expectations gives teachers access to an online pool of custom items aligned to state standards, with additional tools for individualizing instruction.
- New Mexico's *Consumer Guide* (New Mexico Public Education Department, 2006b) evaluates vendors' tests and judges their appropriateness for formative use by state districts.

Each state's position appears intended to fit coherently within its existing comprehensive assessment system and state context.

Substantial variability emerged in how much states regulate the development or use of formative assessments at state and local levels. Researchers found a range of state laws, with formal state directives only in Arkansas, Oklahoma, and Texas. State education agency policies also vary across the Southwest Region. In Arkansas the Academic Improvement Plan specifies that districts must implement a formative assessment component, but districts are responsible for selecting and purchasing the tool for this (Arkansas Department of Education, 2006a). Similarly, Oklahoma requires end-of-course test data to be reported to districts for formative use, but does not supply districts with strategies for reaching this goal. In Texas the Technology Immersion Pilot provides a platform for administering online diagnostic assessments, though the test items are to be provided by each district (Texas Education Agency, 2006b). Louisiana's guidance is most direct: a state grant allows the

Louisiana Department of Education to provide all districts with an online formative assessment system, including both a pool of custom items (aligned to state standards) and training in collecting and reporting data for formative purposes.

Variability also was observed in the support provided to districts for formative assessment, such as professional development opportunities, resources, and product endorsements. Researchers found evidence of five different state-sponsored professional development opportunities related to formative assessment for Arkansas educators, but none for New Mexico educators. Oklahoma was the only state for which researchers could find no evidence of state resource allocation for formative assessment. But Oklahoma, along with Arkansas and Texas, provides districts with endorsements for particular programs or products related to formative assessment.

Overall, Arkansas, Louisiana, and Texas appear to have developed multitiered or multifaceted strategies for supporting formative assessment at the state and local levels. For example, Arkansas provides state guidance and support through regulations, programming, and professional development opportunities for teachers through resource allocation. In contrast, New Mexico focuses its support primarily on one state initiative, its *Consumer Guide*. In Oklahoma limited evidence emerged on state policies and programs, but a range of district formative assessment practices was found.

TABLE OF CONTENTS

Overview	1
Defining formative assessment	4
The need for formative assessment	4
Improving learning outcomes for all students	5
Promoting effective instructional practices across all districts within a state	5
Providing balance within a state’s comprehensive assessment system	6
How are Southwest Region states defining formative assessment?	7
What formative assessment policies or programs are in place in Southwest Region states?	8
State legislation	8
State education agency policies or initiatives	8
Use of released test items	10
What types of support link state policies with district formative assessment practices?	10
Professional development opportunities	10
Resources	11
Product endorsements	11
What examples of district-initiated formative assessment practices can be identified in each Southwest Region state?	11
Arkansas	12
Louisiana	12
New Mexico	12
Oklahoma	13
Texas	13
Call for research in the field	13
Appendix A State statistics	15
Appendix B Study methods and limitations	16
Appendix C Side-by-side comparison of states’ formative assessment policies, practices, and programs	23
Appendix D Letter of introduction to district superintendents	32
Appendix E Questions for district representatives responding by email	33
References	34
Boxes	
1 State characteristics	2
2 Methods and data collection	7
Tables	
A1 State summary statistics	15

B1	Summary of data collection activities	18
C1	Information about comprehensive assessment systems	23
C2	Research question 1: How are Southwest Region states defining formative assessment?	23
C3	Research question 2: What state policies or programs related to formative assessment are in place in each Southwest Region state?	24
C4	Research question 3: What types of support link state policies with district formative assessment practices?	28
C5	Research question 4: What examples of district-initiated formative assessment practices can be identified in each Southwest Region state?	30

Formative assessments help educators target instructional practices to meet specific student needs and monitor and support student progress toward valued state learning outcomes. Policies and programs in the five Southwest Region states suggest a range of strategies to support the development and use of formative assessments.

OVERVIEW

Under the No Child Left Behind Act of 2001 states are held accountable for the performance of all students. Within this context results from formative assessments could provide timely and descriptive information about students to help teachers plan for and deliver effective individualized instruction. The ability to do this in all schools statewide can be facilitated by state policy or programming guidance and state resources for materials, professional development, and financial support.

This report presents findings from a study of formative assessment policies and programs in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, the five states covered by the Southwest Regional Educational Laboratory (see box 1 for state summary statistics that provide context for the report findings). Because the study was initiated in response to regional interest in formative assessment, the types of evidence collected include information about how each state supports the development and use of formative assessments at the state and district levels. Descriptive in nature, the report provides a detailed portrait of state policies and programs related to formative assessment.

Texas clearly stands out in overall size, with more than six times as many students enrolled in nearly five times as many schools as the next largest state. Among the other states Arkansas and New Mexico are more comparable in size, as are Louisiana and Oklahoma. Only 14 percentage points separate the state with the highest percentage of students eligible for free or reduced-price lunch (Louisiana, 62 percent) from the state with the lowest percentage (Texas, 48 percent). New Mexico identifies the highest percentages of students with disabilities (20 percent) and English language learners (19 percent). Arkansas and Texas identify only 12 percent of their students as having disabilities, and Arkansas identifies only 4 percent and Louisiana only 2 percent of their K–12 populations as English language learners.

BOX 1

State characteristics

The table to the right contextualizes the study's findings and promotes meaningful cross-case comparisons. It presents summary statistics that describe characteristics of the K–12 school populations in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, such as the number of students served and percentages of English language learners, students with disabilities, and students eligible for free or reduced-price lunch. Appendix A describes the characteristics of each state's K–12 student population in greater detail.

Southwest Region state summary statistics

Statistic	Arkansas	Louisiana	New Mexico	Oklahoma	Texas
K–12 student enrollment	463,115	724,281	326,102	629,476	4,405,215
Number of public schools	1,158	1,541	842	1,787	8,746
Students eligible for free or reduced-price lunch (percent)	52	62	58	54	48
Students with disabilities (percent)	12	14	20	15	12
English language learners (percent)	4	2	19	7	16

Source: U.S. Department of Education, 2006; National Office for Research, Measurement, and Evaluation, 2005 (Arkansas); Louisiana Department of Education, 2005 (Louisiana); New Mexico Public Education Department, 2005; Oklahoma State Department of Education, 2005 (Oklahoma); Texas Education Agency, 2005 (Texas).

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A systematic examination uncovered disparities in how states define formative assessment. Arkansas, Louisiana, and New Mexico have formal definitions—but these definitions differ, suggesting that Southwest Region states view formative assessment through slightly different lenses. The definitions are also communicated to stakeholders in different ways, through a variety of sources. (No formal definitions of formative assessment were discovered in Oklahoma or Texas.)

Researchers found no study that specifically explored the effects of formative assessment policy

on local practice. But related research on school reform (Darling-Hammond & McLaughlin, 1995), assessment reform (Chudowsky & Pellegrino, 2003; Stiggins, 2002), and accountability (Goodwin, Englert, & Cicchinelli, 2003) suggests that explicitly communicating a clear, consistent message about effective practices facilitates cross-district consistency with the state's education goals.

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- New Mexico's *Consumer Guide* evaluates vendors' tests and judges their appropriateness for formative use by state districts (New Mexico Public Education Department, 2006b).

Each state's position appears intended to fit coherently within its existing comprehensive assessment system and state context.

Substantial variability emerged in how much states regulate the development or use of formative assessments at state and local levels. Researchers found a range of state laws, with formal state directives only in Arkansas, Oklahoma, and Texas. State education agency policies also vary across the Southwest Region. In Arkansas the Academic Improvement Plan mandated by the state's rules governing the Arkansas Comprehensive Testing, Assessment, and Accountability Program specifies that districts must implement a formative assessment component, but districts are responsible for selecting and purchasing the tool for this (Arkansas Department of Education, 2006a). Similarly, Oklahoma requires end-of-course test data to be reported to districts for formative use, but does not supply districts with strategies for reaching this goal. In Texas the Technology Immersion Pilot provides a platform for administering online diagnostic assessments, though the test items are to be provided by each district (Texas Education Agency, 2006b). Louisiana's guidance is most direct: a state grant allows the Louisiana Department of Education to provide all districts with an online formative assessment system, including both a pool of custom items (aligned to state standards) and training in collecting and reporting data for formative purposes.

Variability also was observed in the support provided to districts for formative assessment, such as professional development opportunities, resources, and product endorsements. Researchers found evidence of five different state-sponsored professional development opportunities related to formative assessment for Arkansas educators, but none for New Mexico educators. Oklahoma was the only state for which researchers could find no

evidence of state resource allocation for formative assessment. But Oklahoma, along with Arkansas and Texas, provides districts with endorsements for particular programs or products related to formative assessment.

Overall, Arkansas, Louisiana, and Texas appear to have developed multi-tiered or multifaceted strategies for supporting formative assessment at the state and local levels.

For example, Arkansas provides state guidance and support through regulations, programming, and professional development opportunities for teachers through resource allocation. In contrast, New Mexico focuses its support primarily on one state initiative, its *Consumer Guide* (New Mexico Public Education Department, 2006b). In Oklahoma limited evidence emerged on state policies and programs, but a range of district formative assessment practices was found.

This report does not seek to judge or evaluate the effectiveness of formative assessment policies or practices. The researchers have excluded such evaluative considerations because the context for state regulation of formative assessment is confounded in three ways:

- Formative assessment decisionmaking has traditionally been the domain of local education agencies rather than state education agencies (Shepard, 2000b). Yet with high-stakes assessments based on statewide content standards, educators increasingly seek state guidance in identifying effective tools for gauging student progress toward learning goals.
- Because of a dearth of empirical evidence about the effectiveness of such policies in stimulating effective formative assessment practices, states have no framework for weighing tradeoffs associated with different implementation models.

Substantial variability emerged in how much states regulate the development or use of formative assessments at state and local levels

Clarifying the meaning and purpose of formative assessment and describing its current status can help state and regional decisionmakers weigh options for implementing and supporting promising state and district formative assessment policies, programs, and practices

- Understandings of what constitutes formative assessment differ within the education community, and no consensus has emerged about best practice in using data formatively. Critical questions thus remain unanswered about the appropriate nature and degree of state guidance for formative assessment practice and about the criteria for judging or evaluating the effectiveness of such policies.

While the report seeks to respond to a specific need in the Southwest Region, it also speaks to a broader challenge facing states across the nation. Clarifying the meaning and purpose of formative assessment and describing its current status in five states can help state and regional decisionmakers weigh options for implementing and supporting promising state and district formative assessment policies, programs, and practices. Such efforts may make the links between state education goals and state and local data use more explicit and contribute to greater balance and coherence in state comprehensive assessment systems.

Because of the absence of empirical evidence on the impact of state policies on formative assessment practice, more research is needed to support state decisionmakers seeking to understand how state-level guidance may foster effective local formative assessment practices and ensure cross-district consistency with the state's education goals.

DEFINING FORMATIVE ASSESSMENT

What is formative assessment? A definition recently adopted by the Council of Chief State School Officers was used to guide the collection of formative assessment data for each state:

An assessment is formative to the extent that information from the assessment is used, during the instructional segment in

which the assessment occurred, to adjust instruction with the intent of better meeting the needs of the students assessed (Popham, 2006).

As the definition suggests, formative assessments are intended to support learning and help target instruction through feedback that informs teachers about student progress toward valued learning goals (Sadler, 1989). Such assessments can help educators measure learning outcomes or detect learning gains over short periods of time, rather than just after a year of instruction (Black and Wiliam, 1998, 2002, 2006; Commission on Instructionally Supportive Assessment, 2001; National Research Council, 2001a; Wiliam, 2007). They can be used both to describe student learning and to evaluate instructional methods. Since formative assessments aim to improve instruction, they tend to target specific, finely grained learning goals rather than broad academic standards (Shepard et al., 2005). Although some locally designed interim or benchmark tests may be included in the category, formative assessments should be distinguished from statewide standardized tests of achievement, end-of-course exams, and mini-summative benchmark assessments (practice tests) intended to prepare students for high-stakes accountability tests (Perie, Marion, & Gong, 2007).

According to a seminal article by Black and Wiliam (1998), the term *formative assessment* does not merely signify how data are used, but also refers to a family of related assessment processes. Most educators today agree (Olson, 2006; Wiliam, 2005, 2007). For the purposes of the present study, a formative assessment is any assessment that is intentionally and purposefully linked to instruction, could yield rich diagnostic information about students, and is not intended for assigning summative or end-of-course grades (Wiggins, 1998).

THE NEED FOR FORMATIVE ASSESSMENT

States have several reasons for developing formative assessment policies and programs and

for supporting formative assessment practices. Among them are improving learning outcomes for all students, promoting effective instructional practices across districts, and creating balance in the state's comprehensive assessment system.

Improving learning outcomes for all students

The processes for using data to improve learning outcomes are grounded in cognitive development theory about how learning occurs and competence develops (National Research Council, 2001b). Clear communication of learning goals, with specific criteria for judging progress, ensures that teacher and learner share a consistent message. Then, through an interactive process, teachers build on students' existing knowledge and support, or scaffold, learning in small increments by focusing on key errors and prescribing the corrective steps needed for improvement.

During this process students are engaged and guided in adjusting their conceptual frameworks and learning strategies to received feedback (Pellegrino, 2006; Stiggins, 2002). The feedback reveals gaps between learning goals and the student's current status. When the process is functioning optimally, the student can see where problems arise and how to adjust in order to meet learning goals. The teacher can also use the student's progressive efforts to refine instructional methods (Ramaprasad, 1983; Sadler, 1989). Because both student and teacher share responsibility for learning outcomes, they adapt to narrow the gap between what the student knows and what learning targets still need to be reached.

For two reasons formative assessment processes might be particularly effective for improving learning outcomes for low-performing students. First, they are associated with a wide range of individualized interventions and instructional modifications that have proven effective for addressing diverse learning needs (Black & Wiliam, 2002, 2006; Bloom, 1984; Crooks, 1988; Fuchs, Fuchs, Mathes, & Simmons, 1997; Natriello, 1987; Nyquist, 2003; Wiliam, 2007). Results used formatively have been useful in guiding curricula or

instruction suited to a particular student population (Boston, 2002; Shepard et al., 2005).

Second, formative assessment processes provide specific information about key errors or misconceptions and suggestions for improvement that may prevent students from becoming discouraged (Ames, 1992; Bangert-Drowns, Kulik, Kulik, & Morgan, 1991; Boston, 2002; Elawar & Corno, 1985; Vispoel & Austin, 1995). Students have the opportunity to acknowledge their limitations through candid self-appraisal without punitive consequences. This process facilitates the development of metacognitive skills that foster self-evaluation, enabling students at almost any level to develop a tool box of strategies for achieving target goals and transferring what is learned to new contexts (Assessment Reform Group, 2002; Shepard et al., 2005).

Promoting effective instructional practices across all districts within a state

By adapting instructional strategies, formative assessment processes can be used to transform test results into meaningful learning activities (Fuchs et al., 1997; Shepard, 2000a; Shepard et al., 2005). They encourage teachers to develop instructional practices supported by research in cognitive science, measurement theory, and instructional technology (Chudowsky & Pellegrino, 2003; Stiggins, 2002) and by the principles endorsed by the Commission on Instructionally Supportive Assessment (2001).

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In addition, depending on the context, formative assessments could serve different instructional purposes, including:

- Describing a student's academic strengths and limitations.
- Estimating a group's knowledge level prior to instruction.

- Checking for misconceptions following instruction.
- Providing evidence of progress toward learning goals at key intervals during instruction.
- Differentiating instruction.
- Catalyzing curricular reform.
- Evaluating the effectiveness of an instructional strategy.

Educators have used results from formative assessments to measure, detect, diagnose, grade, prescribe, treat, observe, identify, and correct. Formative assessments can be administered at different times in the instructional cycle (collected continually, periodically, or at key intervals throughout a course of instruction), using different modes of administration (paper-based, computer-based, or performance-based) or formats (multiple-choice, open-ended, computer-adaptive, self-evaluation, journal, portfolio, or project; Commission on Instructionally Supportive Assessment, 2001; National Research Council, 2001a).

Because formative assessments can serve different roles in the states, different models compete for educators' attention (Black and Wiliam, 1998, 2006; Olson, 2006; Shepard et al., 2005). Tests described as formative include curriculum-based assessment (Council of Chief State School Officers, 2001), instructionally supportive assessment (Commission on Instructionally Supportive Assessment, 2001), instructionally sensitive assessment (Shepard, 2000b), assessment for learning (Stiggins, 2002), and diagnostic assessment.

Targeted research to facilitate decisionmaking about the most effective formative assessment practices is lacking. But findings from research in related areas (such as school reform, see Darling-Hammond & McLaughlin, 1995; and

accountability reform, see Goodwin, Englert, & Cicchinelli, 2003) suggest that access to key structures and resources is likely to better position state decisionmakers to weigh the tradeoffs of each formative assessment option in relation to state goals for instruction. Specifically, targeted support for the following stakeholder groups has been shown to enable decisionmaking about instructional improvement through formative assessment:

- Teachers, who need professional growth opportunities to ensure development of content knowledge and specialized pedagogical skills that have been linked to effective instructional practices (Elmore, 2002; Shepard et al., 2005; Stiggins, 2002).
- District and school administrators, who need the support of data management systems that facilitate documentation of assessment processes and appropriate reporting and use of results (Heritage, Lee, Chen, & LaTorre, 2005; Reeves, 2004).
- State policymakers, who need empirical data to defend decisions about assessment policies, programs, and practices (Pellegrino, 2006; Wiliam, 2005, 2007).

Attention to these types of support can help ensure, across all districts, that formative assessment practices are consistent with state goals for effective instruction.

Providing balance within a state's comprehensive assessment system

No Child Left Behind–related demands for state and local education accountability require comprehensive assessment systems whose tests serve various purposes. To meet these needs, state assessment systems can be configured in several ways—from separate tests for each purpose (both summative and formative) to curriculum-based hybrids administered as standardized large-scale assessments (such as benchmark or interim assessments) but supporting finely grained analyses

Formative assessment processes can link the elements of a cohesive assessment system, including instruction, content standards, aligned curriculum, and trusted measures of progress

BOX 2

Methods and data collection

This study examines evidence about state- and district-level formative policies, programs, and practices in the Southwest Region. Data were collected through document analyses and interviews with state and district representatives (see appendixes B, D, and E). Using case-study methodology, researchers then compared how

Arkansas, Louisiana, New Mexico, Oklahoma, and Texas define formative assessment, regulate formative assessment practices, and support the development and implementation of these practices at the state and district levels. They also describe a sample of locally initiated formative assessment practices drawn from these states.

The findings suggest substantial variability in how the Southwest Region

states define formative assessment and in how each state guides or supports the development and use of formative assessments at the state and district levels. Because the findings are based on a small sample of states linked only by membership in a regional educational laboratory—and on the practices of a small convenience sample of districts—caution is warranted in generalizing findings beyond the immediate state sample.

of student learning outcomes. Formative assessment processes can link the elements of a cohesive assessment system, including instruction, content standards, aligned curriculum, and trusted measures of progress (Boston, 2002).

The need exists both for summative data from large-scale achievement tests administered at the end of a year of instruction and for formative data from more individualized, short-term tests that provide descriptive and diagnostic information about students' strengths and limitations (which may be used to inform decisionmaking throughout the course of instruction). Results from summative assessments may be useful in assigning standardized judgments about a student's proficiency in relation to state-adopted content standards. But results from formative assessments have been shown to be more effective in guiding the course of instruction in ways that have a positive impact on student learning, especially for low-performing students (Black & Wiliam, 1998, 2006; Bloom, 1984; Crooks, 1988; Fuchs et al., 1997; Natriello, 1987; Nyquist, 2003; Wiliam, 2007).

The study presents findings from the document analyses and interview processes (see box 2 and appendix B on methodology and data collection) organized by the four research questions that guided this study (see appendix C for a side-by-side display of the evidence collected for each Southwest Region state on each of the research questions):

- How are Southwest Region states defining formative assessment?
- What state policies or programs related to formative assessment are in place in the Southwest Region?
- What types of support link state policies with district formative assessment practices?
- What examples of district-initiated formative assessment practices can be identified in each Southwest Region state?

HOW ARE SOUTHWEST REGION STATES DEFINING FORMATIVE ASSESSMENT?

Definitions of formative assessment vary across the Southwest Region states. They are also communicated to stakeholders in different ways. Definitions are situated in a variety of sources, including a professional development guide (Arkansas), an assessment guide (Louisiana), and a consumer guide to help teachers select formative assessment materials (New Mexico).

Although researchers found explicitly stated definitions in Arkansas, Louisiana, and New Mexico, they noted slight differences in how each of these definitions relates the purpose of formative assessment to teaching and learning. Whereas the *Arkansas Department of Education Rules Governing*

Professional Development (Arkansas Department of Education, 2005, 5.05.03, p. 7) defines formative assessment as “assessment for learning,” Louisiana’s *Graduate Exit Exam Assessment Guide* (Louisiana Department of Education, 2006a, p. A-2) defines it as the “the ongoing evaluation of student performance for the purpose of assessing student learning and planning instruction.” And the *New Mexico Public Education Department Division of Assessment and Accountability Consumer Guide to Formative Assessments* defines formative assessments as “ongoing assessments in a classroom . . . used to improve instructional methods and provide feedback throughout the teaching and learning cycle” (New Mexico Public Education Department, 2006b, p. 1). Researchers could find no evidence of formal definitions for Oklahoma or Texas in any paper or web-based document.

WHAT FORMATIVE ASSESSMENT POLICIES OR PROGRAMS ARE IN PLACE IN SOUTHWEST REGION STATES?

Although the Southwest Region states have various assessment policies, all have some type of formal state directive that can affect formative assessment practices. Such directives include state legislation, state education agency policies, and policies on released test items.

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State legislation

Evidence of a law, code, or regulation explicitly addressing formative assessment was found in Arkansas (house bill and state act), Texas (state administrative code), New Mexico (state act), and Oklahoma (school law). Louisiana regulates formative assessment processes

only by default through an administrative code that calls for a comprehensive assessment system.

State laws in Arkansas (Arkansas General Assembly, 1999) and Texas (Student Success Initiative of 1999; Texas Education Code Section 28.006)

require the inclusion of formative assessment data in developing personal education plans for students failing to demonstrate proficiency on state tests or at risk of retention or not graduating. Oklahoma’s Administrative Code 210 (2003) supports the use of diagnostic reading test data in association with its Reading Sufficiency Act/Reading Proficiency Act. New Mexico supports pre- and post-instruction tests for kindergarteners through its Reading Excellence Act (2000).

The Arkansas Department of Education’s *Rules Governing the Arkansas Comprehensive Testing, Assessment, and Accountability Program* (2006c, 7.02.4, p. 14) requires formative assessment strategies used in student academic improvement plans to be “included and revised periodically.” Filed in February 2007, Arkansas House Bill 2253 (Arkansas House of Representatives, 2007) called for funding for a two-year pilot using formative assessments statewide. Allocations for the pilot were to be \$25 per student (personal communication with Arkansas Department of Education representative, April 2007). This bill has since been withdrawn, pending further study.

State education agency policies or initiatives

All Southwest Region state education agencies include formative assessment in their policies and programs, if in different ways.

Arkansas. The *Arkansas Department of Education Rules Governing the Arkansas Comprehensive Testing, Assessment, and Accountability Program* (Arkansas Department of Education, 2006, 7.02.4, p. 14) requires that formative assessment strategies be included in all students’ academic improvement plans and that such policies be “revised periodically based on results from the formative assessments.” According to a representative (interview, 2007 March), the department authorizes the use of criterion-referenced tests in developing individual academic improvement plans for students failing to demonstrate proficiency on statewide tests in reading, writing, and math. The department’s *Rules Governing Professional Development*

(Arkansas Department of Education, 2005, 3.05, p. 1) specifies that “learning teams . . . are to develop common formative assessments.”

In addition, in a report from the Technology in Education Task Force commissioned by the Arkansas Legislative Joint Committee on Educational Facilities (Technology in Education Task Force, 2004), task force members voice support for the development of an online formative assessment system that allows educators, students, and parents to monitor student progress through the use of test items linked to state standards. The Arkansas Department of Education administers the Smart Start (Arkansas Department of Education, 2006e) and Smart Step (Arkansas Department of Education, 2006f) programs to monitor student progress toward state performance standards. The department also endorses the Arkansas Target Testing Initiative (discussed below).

Louisiana. Ongoing formative assessment is called for in the Louisiana Department of Education’s *Louisiana Literacy Plan* (Picard, 2006). The department also administers the Practice Assessment/Strengthen Skills (PASS) program, which allows teachers to develop electronic and paper-based practice tests in English and language arts, math, science, and social studies to help students prepare for statewide testing (Louisiana Department of Education, nd). The department supports use of the PASS system because, following research-based recommendations, it incorporates an instructional feedback loop.

In May 2007 the Louisiana Department of Education secured a grant to develop its Enhanced Assessments of Grade-Level Expectations (EAGLE) in response to teachers’ requests for finely grained performance data (substrand level) that will allow them to make meaningful data-based instructional decisions. Teachers will have access to an online pool of custom items aligned to Louisiana standards in English and language arts, math, science, and social studies. Linked instructional resources give teachers additional tools for individualizing instruction.

EAGLE can be used diagnostically prior to instruction to develop or modify lesson plans or to evaluate level of competency at the conclusion of an instructional unit. Student self-assessment and goal setting are encouraged through guided feedback that helps students identify the source of error or type of mistake and develop new learning skills to reach their goals. According to conversations with Ron May, project director, and Fen Chou, psychometrician (2007, April), the Louisiana Department of Education views this program as an opportunity to incorporate current research on formative assessment with a state-supported tool (customized item bank) for measuring student progress. Of the Southwest Region states, Louisiana is the only one with a state-endorsed, department-initiated, online formative assessment tool.

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New Mexico. The New Mexico Public Education Department convened a task force consisting of department specialists and district representatives to develop a consumer guide for formative assessments. The state’s *Consumer Guide* provides evaluations of vendors’ tests that district-level decisionmakers can use in determining the tests’ appropriateness for formative purposes (New Mexico Public Education Department, 2006b). These educator-written rubrics evaluate the strengths and limitations of each product according to 15 criteria that include cost, link to state content standards, accessibility for students with disabilities and English language learners, and flexibility of administration.

Vendors are encouraged to submit existing tests, and districts can request that certain products or programs be reviewed. The *Consumer Guide* is viewed as an interim measure to help districts evaluate existing tests until a statewide formative assessment is developed. The New Mexico Public Education Department web site encourages the use of the *Consumer Guide* during decisionmaking

to ensure that New Mexico districts have access to trustworthy information when judging formative assessment systems. New Mexico is the only Southwest Region state that provides this type of statewide service for districts seeking to implement formative assessment practices.

According to Dr. Karen Harvey, assistant secretary, Quality Assurance and Systems Integration Division, (interview, 2007, April), the Public Education Department issued a request for proposals to investigate developing a voluntary state curriculum in math (2007/08), reading, and science (both 2008/09) with lesson plans and curriculums aligned to research-based guidelines and National Assessment of Educational Progress standards. When fully developed, this initiative is intended to support local formative assessments.

All five Southwest Region states link their policies and programs to some form of state support for the development and use of formative assessments

Oklahoma. According to guidelines on its Student Assessment Division web site (Oklahoma State Department of Education, nd-c), the Oklahoma State Department of Education supports the use of data from the state's exams for diagnostic and formative purposes.

Test score reports may be used diagnostically to measure student strengths and limitations and formatively to guide instruction and remediation.

Texas. The Texas Education Agency supports formative assessment through the Student Success Initiative (Texas Education Agency 2007b), a broad statewide education initiative for students in grades 3, 5, and 8 who are at risk of retention because they did not pass the statewide tests in reading and math required for promotion at those grades. As one component of this initiative, grade-placement committees are expected to use formative assessment data to develop personal education plans for these students.

In addition, the Texas Education Agency monitors the Technology Immersion Project (Texas Education Agency, 2006b), which includes a platform for the administration of online diagnostic

assessments. The Technology Immersion Project platform can deliver on-demand data about student proficiency so teachers can individualize instruction and implement interventions for individuals or student groups. Finally, using the Texas Primary Reading Inventory, Texas Education Agency staff (Anita Givens, director for instructional materials and educational technology) administered a successful formative assessment pilot using hand-held devices for assessing early reading skills.

Use of released test items

All five Southwest Region states make released state test items available to the public through web sites maintained by state education agencies. In Oklahoma and Texas the use of released test items for formative purposes was codified in administrative regulations. In Arkansas, Oklahoma, and Texas the state education agencies encourage stakeholders to access the released items specifically for use in developing classroom-based formative assessments. In Texas online practice tests for end-of-course exams also are available. Similarly, in Louisiana stakeholders have access to downloadable state test items for practice in preparing for the statewide testing.

WHAT TYPES OF SUPPORT LINK STATE POLICIES WITH DISTRICT FORMATIVE ASSESSMENT PRACTICES?

All five Southwest Region states link their policies and programs to some form of state support for the development and use of formative assessments. These include professional development opportunities, resources, and product endorsements.

Professional development opportunities

In the *Rules Governing Professional Development* the Arkansas Department of Education (2005, p. 7) grants professional development time for “developing assessments for learning.” It lists formative assessment as an approved topic for professional

development so that teachers can learn to develop, interpret, and use formative assessments in each subject area and develop common formative assessments. In addition, through its Education Service Cooperatives, the department supports staff development in using data from the Arkansas Target Testing Initiative (see below). The department also supports training for K–3 and special education teachers seeking to use reading program data formatively in developing individual intervention plans. Finally, it monitors federal funds associated with the Positive Behavior Support Project, which provides grant money to educators for training in using discipline data formatively as an intervention for students with school-behavior issues (James, 2004).

In all states except New Mexico the state education agencies support professional development sessions related to formative assessment delivered by a test vendor, Educational Testing Service (ETS; Educational Testing Service, 2007), which offers professional development to administrators and teachers from participating districts through “Webinars.” The web-based interactive sessions assist teachers in using the ETS Formative Assessment Item Bank as a tool. The Texas Technology Immersion Pilot (see above) includes a professional development component in addition to technical support. Louisiana’s EAGLE includes a professional development component, as does its PASS (see above).

Resources

Through the Louisiana Department of Education, the American Education Corporation offers students displaced by Hurricane Katrina free access to online assessments so that schools have a diagnostic tool for judging skill levels in math, reading, science, and social studies. New Mexico’s *Consumer Guide* (New Mexico Public Education Department, 2006b) provides support to local education agencies with informational resources that can be used in selecting formative assessment products. Through a collaborative project with the University of Arkansas, the Arkansas Department of Education supports state teachers through its

Enterprise Guide for Educators, which guides them in accessing data for use in the improvement of classroom instruction (National Office for Research, Measurement, and Evaluation, 2007).

Texas’ Student Success Initiative (see above) includes support for district use of Pearson’s Progress Assessment Series (Pearson, 2007b), an online system for diagnosing student strengths and limitations in grades 3, 5, and 8. The Texas Education Agency also provides technical support to district staff through its Technology Immersion Project (Texas Education Agency, 2006b).

Product endorsements

The Arkansas Department of Education endorses the Triand web-based system (Arkansas Department of Education, nd) for managing data associated with formative testing at the district level. The Oklahoma State Department of Education supports use of a formative assessment resource called Data Connections (Appalachia Education Laboratory and Edvantia, 2003). The Texas Education Agency, through its Student Success Initiative, encourages districts to use Pearson’s Progress Assessment Series (Pearson, 2007b).

WHAT EXAMPLES OF DISTRICT-INITIATED FORMATIVE ASSESSMENT PRACTICES CAN BE IDENTIFIED IN EACH SOUTHWEST REGION STATE?

Through web searches, document analyses, and interviews with state department of education staff 17 district and multidistrict initiatives were identified. The local education agencies have implemented these formative assessment processes using custom-developed or off-the-shelf formative assessments. Districts in Arkansas, Louisiana, Oklahoma, and Texas have adopted the ETS Formative Assessment

The study identified 17 district and multidistrict initiatives. The local education agencies have implemented these formative assessment processes using custom-developed or off-the-shelf formative assessments

Item Bank (Educational Testing Service, 2007) for the development of online assessments. Those in Arkansas and Louisiana use Learning Today's Smart Tutor web-based system (Learning Today, 2006) to inform differentiated instruction. Those in New Mexico and Texas use ThinkLink Predictive Learning Series (Discovery Education, nd) for periodic, benchmark-based online testing. Those in Oklahoma use Scantron's diagnostic programs (Scantron Corporation, 2007).

One district-level or multidistrict level formative assessment initiative from each Southwest Region state was selected for highlighting in this report. These initiatives do *not* represent best practices. Instead, each was derived from a convenience sampling process and is included only to add a variety of local perspectives to the findings.

Arkansas

The Arkansas Target Testing Initiative (South Central Service Cooperative, nd), a multidistrict initiative developed by districts through their Education Service Cooperative, is unique. An Arkansas Department of Education–endorsed formative assessment program, it provides participating districts with a cost-effective formative assessment tool. Math and literacy items have been developed by content experts in alignment with state learning expectations.

Multiple-choice and constructed-response items in the databank are used to diagnose students' strengths and limitations. Responses to multiple-choice items are scanned and scored mechanically, with results available to students almost immediately. Responses to constructed-response items are scored by district teams, with a slightly longer turn-around time. For each content area teachers are provided with instructional pacing guides to focus on student strengths and weaknesses prior

to the state exams. Workshops for participating districts facilitate the effective use of data.

Louisiana

To monitor student learning, Union Parish School District in Farmersville uses Pearson's Classroom Performance System (Pearson, 2007a). Using hand-held devices, students assess their own learning processes during an instructional segment and communicate learning outcomes to the teacher. Teachers can track comprehension, administer self-paced testing, and create custom student and class reports in a variety of formats for different audiences. District staff have found the tool useful for keeping students on-task and raising their performance levels.

New Mexico

The Las Cruces Public School District includes 21 schools that did not reach the state's annual No Child Left Behind performance goals. To support educators in reaching performance goals for all students in 2007/08, the district has decided to implement Measures of Academic Progress (MAP), developed by the Northwest Evaluation Association (2003). Using the state's *Consumer Guide*, MAP was identified by district staff as the formative assessment process that would best meet their needs and goals.

MAP is expected to provide district teachers with timely, accurate performance data that will enable them to focus on each student's unique instructional needs. The district is planning forums for principals and teachers to discuss implementation issues, with topics ranging from the efficacy of the process to concerns about technology infrastructure.

In addition, the Las Cruces Public Schools District supports student achievement by explicitly incorporating formative assessment processes in its *Curriculum Alignment Matrix* (Las Cruces Public Schools, 2006). This print and online tool for teachers combines content-specific pacing

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guides with state and classroom test results and guides teachers in using student assessment data formatively.

Oklahoma

The Jenks Public Schools District uses two programs for formative assessment purposes. The first is a diagnostic system in which pre- and post-tests are administered prior to and following instruction. Test items for these tests have been developed in math, science, and writing by district teachers; items for the social sciences are scheduled for development in 2007/08. District staff review the pre- and post-tests on an ongoing basis to ensure that they remain reliable measures of performance and that valid inferences are drawn from findings. This process is intended to provide Jenks Public Schools teachers with valuable professional development in item writing and with diagnostic information about student strengths and limitations.

The second program used by Jenks Public Schools is the Essential Elements program (Jenks Public Schools, 2007), which is focused on developing essential elements, or instructional priorities for each class. Ongoing testing on those elements tracks student growth over time. Graphs depicting individual and group growth are posted for review by class members, with results used formatively to inform instructional decisionmaking. Jenks Public Schools staff are provided with professional development opportunities associated with the Essential Elements program.

Texas

The Clarksville Independent School District is a rural district that faces challenges associated with higher-than-state-average rates of poverty and unemployment. It received a Texas Technology Immersion Program (Texas Education Agency, 2006b) grant to focus on raising student achievement through technology-based formative assessments. Students and teachers in three schools in grades K–12 are provided with notebook computers for administering online tests linked to

key learning outcomes. Teachers have access to professional development workshops in using electronic data formatively to improve instructional methods and promote student learning.

The Technology Immersion Program (Texas Education Agency, 2006b) is used as the platform for administering CTB/McGraw-Hill's i-Know, an online process for measuring student skills and tracking student progress (CTB/McGraw-Hill, 2007). I-Know includes items developed from both national and Texas content standards. Through ongoing online testing, teachers can assess student skills in reading, language, applied math, math comprehension, science, and social studies. District teachers using this system are provided with immediate feedback on student strengths and limitations, measured while students are engaged in learning activities.

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CALL FOR RESEARCH IN THE FIELD

Recently, state policymakers have joined educators in considering the significant role of formative assessment in providing students with the targeted support they need to achieve grade-level expectations. But because of the dearth of empirical evidence on the impact of state policies on formative assessment practice, more research is needed to inform state decisionmakers seeking to understand how state-level guidance—whether through policy, programming, or resource allocation—may foster effective state and local formative assessment practices and ensure cross-district consistency with state education goals. Clearer direction would better position state education agencies to evaluate formative assessment policy options in light of tradeoffs related to

Clearer direction would better position state education agencies to evaluate formative assessment policy options in light of tradeoffs related to state- and district-specific needs and goals

state- and district-specific needs and goals.

Two sets of findings from this study are intended to serve as a catalyst for future research. First, among Southwest Region states, even states facing similar challenges (box 1 table)—in the size of the K–12 student population (Arkansas and New Mexico, or

Louisiana and Oklahoma), the percentages of students with disabilities (Arkansas and Texas), or the percentages of English language learners (New Mexico and Texas)—have chosen different paths for developing or supporting formative assessment at the state and local levels. What student needs precipitate movement toward a specific type of state-supported formative assessment initiative? What factors or conditions related to the student population may influence a state’s decision to regulate formative assessment practices? It would be useful for researchers to develop working

hypotheses about the nature of these relationships and explore them empirically.

Second, in the small sample of districts within the Southwest Region (N=17) a range of district-level formative assessment practices have emerged. These include use of online test item banks (except New Mexico), noncustomized products (all states), diagnostic tools (Arkansas, Louisiana, Oklahoma), end-of-course or benchmark assessments (New Mexico, Oklahoma), district-developed customized programs (New Mexico), and collaborative cross-district efforts (Arkansas). What district characteristics need to be considered when developing a formative assessment initiative? What types of initiatives are most effective in addressing specific district needs? What types of state support sustain formative assessment initiatives? Additional research is warranted to examine more systematically all formative assessment practices within each state and to explore the extent to which the existing or emerging initiatives are enabled by state guidance or support.

APPENDIX A

STATE STATISTICS

TABLE A1

State summary statistics

Statistic	Arkansas	Louisiana	New Mexico	Oklahoma	Texas	
K–12 student enrollment	463,115	724,281	326,102	629,476	4,405,215	
Number of public districts	318	68	89	541	1,039	
Number of public schools	1,158	1,541	842	1,787	8,746	
Elementary schools	600	831	449	1,020	4,224	
Middle schools	201	245	152	294	1,576	
High schools	311	303	119	483	1,687	
Multilevel schools	—	156	—	—	469	
Alternative schools	5	36	27	—	714	
Career/technical schools	—	—	—	54	—	
Charter schools	17	17	44	12	321	
<i>Student characteristic (percent)</i>						
Asian	1	1	1	2	3	
Black	23	48	3	11	14	
Hispanic	6	2	53	8	45	
American Indian	1	1	11	19	<1	
White	69	48	32	61	38	
Eligible for free or reduced-price lunch (percent)	52	62	58	54	48	
Students with disabilities (percent)	12	14	20	15	12	
English language learners (percent)	4	2	19	7	16	
Graduation rate (percent)	81	83	84	86	84	
Mean percent at or above proficient 2006 state English language arts and reading	Grades 3–5	50	64	55	77	81
	Grades 6–8	55	52	47	73	83
Mean percent at or above proficient 2006 state math	Grades 3–5	50	61	36	74	81
	Grades 6–8	40	54	22	69	66
Mean scale score 2005 state National Assessment of Educational Progress reading	Grade 4	217	230	224	214	219
	Grade 8	258	268	263	260	258
Mean scale score 2005 state National Assessment of Educational Progress math	Grade 4	236	209	207	234	242
	Grade 8	272	253	251	271	281

— is not available.

Source: U.S. Department of Education, 2006; National Office for Research, Measurement, and Evaluation, 2005 (Arkansas); Louisiana Department of Education, 2005 (Louisiana); New Mexico Public Education Department, 2005; Oklahoma State Department of Education, 2005 (Oklahoma); Texas Education Agency, 2005 (Texas).

APPENDIX B

STUDY METHODS AND LIMITATIONS

This study used case study research to investigate a contemporary phenomenon within its real-life context (Yin, 1984). Case study research drawn from recent policy analyses (McDermott, 2007) is appropriate when researchers seek to build on what is already known by collecting evidence to identify common patterns while shaping a detailed portrait. The case study researcher relies on systematic, in-depth contextual analyses and the triangulation of data to strengthen research findings and conclusions (Glaser & Strauss, 1967; Stake, 1995).

Case study methods offer specific advantages for this study. When implemented appropriately, they help ensure reliability of the processes and validity of inferences drawn from findings (Merriam, 1998). These advantages include:

- Research design well suited to creating a descriptive portrait of each state.
- Pre-data collection planning about key sources and types of evidence for addressing the research questions.
- Multiple data sources and data-gathering techniques to build a chain of evidence about formative assessment.
- Careful documentation of sources of evidence.
- Established protocols for interview processes.
- Appropriate reporting format.

Planning and pre-data collection steps

The state was identified as the unit of analysis ($N = 5$). Following case study guidelines, plans were initiated for the systematic collection, categorization, storing, and reporting of state-specific evidence. Researchers were trained to identify and record specific types of descriptive data, to be persistent in locating elusive information, and

to remain open to conflicting data and contrary findings.

Side-by-side tables were created (appendix C) to display data for each Southwest Region state as they were collected. This type of data organizer was intended to facilitate reporting of the ways formative assessment was being defined, supported, and implemented across study states. Each category of evidence in the table was linked specifically to one or more of the research questions.

This table was designed to be dynamic so adjustments or modifications could be made, as needed, during the data collection phases. For example, in two cases emerging data suggested that a category might more clearly be addressed by dividing it into subcategories. This strategy was applied to research question 2 (table C3 in appendix C), where state policies or programs related to formative assessment were further subdivided into state regulations, codes, and laws; state education agency policies or programs; and policies related to released test items—and to research question 3 (table C4 in appendix C), where types of support were further subdivided into professional development opportunities, resources, and product endorsements.

During early planning sessions researchers also identified state characteristics, related to the K–12 student population served, that might vary systematically with differences in formative assessment policies, programs, and practices. Such characteristics have been shown to be associated with cross-state differences in test performance on the National Assessment of Educational Progress (U.S. Department of Education, 2007; Standard & Poor's, 2005). Therefore, data describing these characteristics for each Southwest Region state were collected to provide context for the data collected through document analyses and interview processes. Providing this type of background information about the unit of analysis is recommended in case studies (Merriam, 1998).

Finally, a protocol for the telephone interviews with state and district staff was developed. These

interviews were intended to verify, update, and supplement data collected through the document analyses. Researchers anticipated challenges in accomplishing this goal. Researchers understood that it might be difficult to locate the most knowledgeable representative about formative assessment within a state department of education, because that staff person could be assigned to several divisions within that department, such as assessment, accountability, curriculum and instruction, or special populations. Locating the most knowledgeable district representative was also likely to prove challenging because the target staff person could be assigned to a school rather than the district office. As a result, researchers concluded that an informal interview structure—one that accommodated impromptu interviews, if needed—would be most appropriate, using prompting questions only when needed. Interview time was estimated at 30 minutes.

Review of literature

A focused literature review was conducted to serve as the foundation for the research questions and to provide additional context for the descriptive data collected in the document analyses. During this process, the researchers' scope of review was not restricted to information about Southwest Region states. Instead, their review included policies and practices related to formative assessment that extend across all states.

Initially, the literature review focused on locating nationally disseminated empirical research on the purposes of formative assessment and the effects of state policy on state and local formative assessment practice. Data about the purposes of formative assessment were accessible. But despite searches across a range of sources that included professional journals, assessment-related web sites, national databases, and proceedings or programs from professional conferences (see table B1), no study was located specifically describing the effects of state formative assessment policies on local practice. As a result, researchers expanded their review to include studies of the effects of

state policy in related areas, such as school reform, summative assessment, and accountability.

Because *formative assessment* refers to a genre of assessment processes and different formative assessment models compete within the education research community (Black and Wiliam, 1998, 2006; Olson, 2006; Shepard et al., 2005), researchers relied on a range of key words to access relevant information in research reports and to locate links to empirical research studies, formal presentations, and policy reports. The key words included:

- Formative, diagnostic, benchmark, interim, curriculum-based, and instructionally-supportive or instructionally-sensitive assessments.
- Pre-post testing.
- Assessment for learning.
- Guidelines for data use.
- Instructional or curricular adaptations and differentiated instruction.
- Metacognitive strategies, cognitive scaffolding, and the feedback cycle.
- Released test items.
- Comprehensive assessment system.
- Assessment-related state policies and programs.

These terms may have been associated with a state or district policy or program; written communication between the state and school districts; a state or district assessment, test, process, tool, or instrument; or a state or district data system.

Data sources, data collection steps, and documentation of evidence

Data collection efforts during this phase of the study were focused on information specifically related to the Southwest Region states. In keeping

TABLE B1

Summary of data collection activities

Resource type	Example or explanation	Documents analyzed
State Department of Education or other state-maintained web sites	Web pages for State Report Card or state assessment programs	State codes, regulations, policies, publications, communications, presentations, reports, annual report cards, technical manuals, interpretive guides, Peer Review Workbook
U.S. Department of Education or other federally maintained web sites	National Center for Education Statistics or National Assessment of Educational Progress web pages	Peer Review letters, state-by-state demographic and performance summary data
National organizations or annual conferences	Council of Chief State School Officers, Education Commission of the States, Phi Delta Kappa, American Educational Research Association, National Council on Measurement in Education, National Center for Educational Accountability, National Institute of Standards and Technology	Web pages, articles, reports, presentations, proceedings, programs, announcements, state-by-state comparisons
National databases or clearinghouses related to assessment	Assessment and Accountability Comprehensive Center, Center for Research in Evaluation, Standards, and Student Testing	Vetted research articles, position papers, policy statements
State university web sites	University of Arkansas	Articles, reports, presentations
Test vendors or organizations involved with testing	Educational Testing Service, Pearson, ThinkLink, Scantron Corporation, Learning Today, Princeton Review, Northwest Evaluation Association	Web pages, pamphlets, brochures, reports, announcements, press releases, sample score reports
School district web sites	Clarksville Independent School District, Texas; Jenks Public Schools, Oklahoma; Las Cruces Public Schools, New Mexico; Little Rock School District, Arkansas; Union Parish School Board, Louisiana	Web pages, announcements, reports, annual report cards
Books, newspapers, and research journals	American Educational Research Journal; Education Week; Educational Leadership; Educational Psychologist; Journal of Educational Psychology; Journal of Educational Research; Kappan; Practical Assessment, Research, and Evaluation; Review of Educational Research	Articles, chapters, special editions
Telephone interviews	One per state (N = 5), with state-level representative identified as knowledgeable about the state's formative assessment initiatives	Oral verification of state policies/programs, possible links between state policies and programs and district initiatives
Telephone interviews and email exchanges	One per state (N = 5), with district-level representative identified as knowledgeable about a district formative assessment initiative	Oral verification of district practice, possible links between state policies and programs and district initiatives

Source: Authors' analysis based on data described in text.

with recommendations for case study methodology (Merriam, 1998), multiple data sources and data collection strategies were used to allow the triangulation of findings on Southwest Region state formative assessment policies, programs, and practices. These sources included paper-based and web-based documents as well as interviews with state and district representatives. Data collection

activities extended from September 2006 through August 2007.

Analysis of documents and interviews with administrators

Because analysts were focused on answering the study's research questions, they sought information about how Southwest Region states defined

formative assessment and operationalized it in communication with districts, state policies or programs related to formative assessment, state guidelines for formative data use, forms of state support for formative assessment, and types of formative assessment practices at the district level. As a first step in this process, analysts identified sources for such information. (Table B1 summarizes data sources by resource type.)

Analysts carefully reviewed documents for evidence related to the four research questions. Documents that included a reference to a topic of interest were recorded, the information cataloged, and relevant data added to the side-by-side table (table C1). Through an iterative process, the table was continually updated as new information was located, so that a comprehensive descriptive portrait of the status of formative assessment policies and practices in each of the five Southwest Region states emerged.

When gaps in coverage across the states were noted—such as a policy definition of formative assessment for one state—analysts persistently and methodically pursued alternate sources of information. They attempted to exhaust all possible information sources, including those available to the public and those restricted to members (such as the American Educational Research Association) to ensure that the data presented in the side-by-side table were both exclusive and comprehensive. They intended to verify these assurances during the interviews with state personnel, who may have had access to restricted or proprietary information.

One source of information about operationalization of formative assessment policy was state policy on released items. To ensure that stakeholders have access to representative samples of the types of knowledge and skills assessed by their states' annual high stakes, NCLB accountability-based tests of achievement, states release test items or test forms each year for public review. This practice is also endorsed by the National Center for Education Statistics for National Assessment

of Educational Progress assessments (U.S. Department of Education, 2007) and the International Association for the Evaluation of Educational Achievement for Trends in International Math and Science Study assessments (2005). Because states may promote formative use of these “released” items, data were collected related to policies on the use of released state test items.

Interviews with department of education representatives. To orally verify, update, and supplement data collected through the document analyses, researchers arranged for telephone interviews with a state department of education staff person from each of the five states. Before scheduling the interviews, the Southwest Regional Education Laboratory at Edvance Research Institute sent a letter to the chief school officer for each state to formally introduce the formative assessment study, provide details about its purpose and research components, and inform the chief of the intent to contact a staff member from the state's department of education.

Researchers then contacted the assessment division of each state's department of education for a referral to the one representative considered most knowledgeable about formative assessment policies and programs in that state. As anticipated, across states, formative assessment responsibilities (if existing) currently are assigned to staff in several divisions, including assessment, accountability, curriculum and instruction, special populations, and district outreach.

As a result, identifying the most knowledgeable representative was a multistep process, as those originally identified often referred researchers to other staff members once the specific nature of the information needed was clarified. Over time, though some information may have been gathered from each of these contacts, one key staff member from each state was identified as most appropriate for a more thorough interview. In three of the five states this chain of referrals led to the most appropriate staff member in an impromptu manner, so researchers did not provide written summaries of

collected data prior to the interview. In the other two states written summaries were emailed to the staff member prior to the scheduled interview.

The structure for these interviews was informal, with each interview lasting 15–30 minutes. A trained researcher introduced the study, explained its purpose, and sought to foster an atmosphere of collaboration and trust. In all cases the researcher summarized existing information orally. The staff member was asked to consider the collected data, to offer clarifying comments when relevant, and to provide oral confirmation of the accuracy of the data, when possible. The representative was encouraged to share additional information about the state's formative assessment policies and programs related to the research questions. To elicit key information or to fill gaps that had emerged in data collected for that state, researchers used prompting questions, such as:

- Has the status of any of these data changed recently?
- Is the state considering implementing any new policies or programs?
- Does the department monitor district or school formative assessment initiatives?

At the conclusion of each telephone interview the researcher asked the department representative to recommend a district in the state currently engaged in a formative assessment initiative. In all but one state interviewees stated that they did not have reliable information related to district practices and could not offer a recommendation. Data were collected from the researcher's hand-written notes and added to the side-by-side table, where appropriate.

Interviews with district representatives. To learn about how state policies and programs might be operationalized and to provide information about the types of formative assessment initiatives developed at the district level, researchers identified a pool of districts in the five Southwest

Region states engaged in formative assessment practices. For this purpose, using the document analysis strategies described above, they collected information about district formative assessment activities. Summarized in table B1, data about district formative assessment practices were sought from national and Southwest Region state web sites; research journals, organizations, and clearinghouses; professional conferences; research or policy reports; press releases; and test vendor publications.

Using these data, researchers identified 17 unique districts or multidistrict consortia across the five states as potential contacts for district interviews. All were districts with formative assessment practices recognized on state or vendor web sites, highlighted in a local newspaper or professional journal, or awarded recognition through national, state, or local announcements. As the one district name provided by the state-level representative was a district already identified through document analyses, these 17 districts represented the final pool for drawing the convenience sample of five districts (one per state). The final list of districts included:

- Arkansas: Little Rock School District, Ashdown Public Schools, Boonville School District, El Dorado School District.
- Louisiana: Union Parish School District, Jefferson Parish School District.
- New Mexico: Las Cruces Public Schools, Espanola Public School District, Albuquerque Public Schools, Taos Municipal Schools, Los Lunas School District.
- Oklahoma: Jenks Public Schools, Bristow Public Schools, Blackwell Public Schools.
- Texas: Clarksville Independent School District, Aldine Independent School District, Hildalgo Independent School District.

From this pool five districts or multidistrict consortia (one from each Southwest Region state)

were selected that, based on existing information, represented a range of different formative assessment practices (item bank, noncustomized diagnostic test, customized process). Researchers sent letters of introduction to the superintendents of each district to explain the study's purpose and ask for a referral to a representative knowledgeable about the district's formative assessment initiative (appendix D). Responses were received from two of the five districts; telephone interviews were scheduled with the recommended representative from each district. No response was received from the other three districts, so researchers followed up with telephone calls. This process resulted in one impromptu telephone interview. The remaining two districts agreed to email written responses to a set of questions (appendix E).

The structure for the two telephone interviews was informal, with each interview lasting 15–20 minutes. A trained researcher introduced the study, explained its purpose, and sought to foster an atmosphere of collaboration and trust. The researcher summarized existing data about the district's formative assessment initiative and asked the representative to share any additional information about this initiative. To prompt their responses, researchers asked such questions as the following:

- What did your district hope to accomplish with this initiative?
- How are formative assessment data currently used in your district?
- What resources, financial or otherwise, were provided by the state to support your initiative?

At the conclusion of each telephone interview data were collected from the researcher's hand-written notes and added to the side-by-side table, where appropriate. Responses received by email (two districts) were also reviewed, and relevant data were included on the side-by-side table.

Study limitations

As in other studies collecting evidence using the case study methodology, researchers faced special challenges ensuring the reliability of data collection measures and the validity of findings (Merriam, 1998). Therefore, safeguards were implemented to ensure exhaustive and comprehensive searches for information about formative assessment in both print and electronic formats, careful documentation of data collection strategies, and sources of evidence to enable study replication.

First, two researchers worked simultaneously over 12 months (September 2006 through August 2007) to identify reliable sources of information and to verify findings. Using an iterative process, state data were updated weekly through ongoing but focused searches to confirm existing information and identify new print or electronic resources. Second, multiple methods facilitated the triangulation of emerging findings. Findings from document analyses were supported by data from telephone interviews with state education agency representatives that served as a check on data collected, as well as data from telephone interviews with local education agency representatives that offered an opportunity to supplement findings from the document analyses and state-level interviews with district-confirmed information.

This investigation was conducted with diligence in seeking and exploring all sources of evidence. Researchers systematically followed case study recommendations, using dependable data collection methods appropriate for the purpose and giving principled attention to accuracy and validity in reporting findings. Nonetheless, these findings represent only a snapshot of state policies, practices, and programs regarding formative assessment that were evident at a point in time. Additionally, the findings are based on a small sample of states that are linked only by membership in a regional educational laboratory—and on the practices of a small convenience sample of districts. So, caution is warranted in generalizing findings beyond the immediate state sample.

The results from this examination between state policy and district practices are not intended to imply causal relationships. In many cases, district practices were initiated before implementation of state policy, and district practices were unrelated to state initiatives. For this reason the authors avoid drawing inferences about the effectiveness of any policy, program, or practice.

APPENDIX C

SIDE-BY-SIDE COMPARISON OF STATES' FORMATIVE ASSESSMENT POLICIES, PRACTICES, AND PROGRAMS

TABLE C1

Information about comprehensive assessment systems

State	Information	Peer review status: standards and assessments
Arkansas	State tests: Arkansas Comprehensive Testing and Accountability Program (ACTAAP) benchmark exams (criterion-referenced tests, grades 3–8); end-of-course exams (algebra, geometry, literacy); Iowa Tests of Basic Skills (ITBS; grade 3–8); Iowa Test of Education Development (ITED) at grade 9; and Arkansas Alternate Portfolio Assessment System (AAPAS) for students with significant cognitive disabilities (Arkansas Department of Education, 2006a, 2006b, 2006c, 2006d).	Full approval (December 19, 2006)
Louisiana	Comprehensive assessment system: iLeap (norm-referenced test augmented criterion-referenced test in grades 3, 5–7, 9); Louisiana Educational Assessment Program (LEAP) (criterion-referenced test in grades 4 and 8); graduation exit exam (GEE); Louisiana alternate assessments (LAA1 and LAA2) (Louisiana Department of Education, 2006a, 2007b, 2007c, 2007d).	Approval expected (June 29, 2006)
New Mexico	New Mexico Achievement Assessment Program (NMAAP): New Mexico Standards Based Assessment (NMSBA, grades 3–9 and 11); New Mexico High School Competency Exam (NMHSCE); New Mexico English Language Proficiency Assessment (NMELPA); New Mexico Alternate Performance Assessment (NAPA) (New Mexico Public Education Department, nd).	Approval pending (June 22, 2006)
Oklahoma	Oklahoma School Testing Program (OSTP) based on core curriculum (Priority Academic Student Skills—PASS): Oklahoma Core Curriculum Tests (OCCT, grades 3–8), end-of-course tests (Algebra, Geometry, Literacy) (Oklahoma State Department of Education, nd-a, nd-c).	Full approval (June 30, 2006)
Texas	Texas Assessment Program (TAP): Texas Assessment of Knowledge and Skills (TAKS and TAKS-ALT; grades 3-HS in English and language arts, math, science, social studies), the State Developed Alternative Assessment (SDAA II), the Texas English Language Proficiency Assessment System (TELPAS), and the Texas Assessment of Academic Skills (TAAS, being phased out as exit exam) (Texas Education Agency, nd-a).	Approval pending (October 27, 2006)

TABLE C2

Research question 1: How are Southwest Region states defining formative assessment?

State	Defining formative assessment
Arkansas	Assessments for learning (5.05.03.4, Arkansas Department of Education, 2005).
Louisiana	Formative assessment is the ongoing evaluation of student performance for assessing student learning and planning instruction (Louisiana Department of Education, 2006a).
New Mexico	Formative assessments are ongoing classroom assessments used to improve instructional methods and provide feedback throughout the teaching and learning cycle (New Mexico Public Education Department, 2006).
Oklahoma	No evidence.
Texas	No evidence.

TABLE C3

Research question 2: What state policies or programs related to formative assessment are in place in each Southwest Region state?

State	State education agency regulations, codes, and laws	State education agency policies and programs	State education agency policies on released test items
Arkansas	<p>House Bill 2253, filed on February 28, 2007, called for a two-year pilot using formative assessments statewide and for the allocation of \$25 per student (though not foundation funding) for this pilot. The bill, which was not introduced through the Arkansas Department of Education, has been withdrawn pending further study (interview with department representative, April 2007).</p> <p>In 1999 Act 999 required the development of student academic improvement plans for students who fail to demonstrate proficiency in reading, writing, and math, using results from Progress of Learning Strategies. The <i>Arkansas Department of Education Rules Governing the Arkansas Comprehensive Testing, Assessment, and Accountability Program</i> (Arkansas Department of Education, 2006c, 7.02.4, p. 14) requires formative assessment strategies to be “included and revised periodically.”</p>	<p>According to the Arkansas Department of Education’s <i>Rules Governing the Arkansas Comprehensive Testing, Assessment, and Accountability Program</i>, “The Academic Improvement Plan shall include formative assessment strategies and shall be revised periodically based on results from the formative assessments” (Arkansas Department of Education, 2006c, 7.02.4, p. 14). The <i>Rules</i> authorizes the use of criterion-referenced tests to develop individual academic improvement plans for students who fail to demonstrate proficiency in reading, writing, and math (7.02.4).</p> <p>According to the Arkansas Department of Education’s <i>Rules Governing Professional Development</i>, “Learning Teams...are to develop common formative assessments” (Arkansas Department of Education, 2005, 3.05, p.1).</p> <p>A report to the Legislative Joint Committee on Educational Facilities provides support for the development of an online formative assessment system, allowing educators, students, and parents to monitor student progress through test items linked to state standards (Technology in Education Task Force, 2004).</p> <p>Smart Start (K–4), Smart Step (5–8), and Next Step (high school) are administered through the department to monitor student progress (Arkansas Department of Education, 2006a).</p>	<p>Items released on a state web site can be used for formative purposes (Arkansas Department of Education, 2006b).</p>
Louisiana	<p>Louisiana Administrative Code, Bulletin 118, establishes a comprehensive assessment system (2006).</p>	<p>Key components 4 and 2.c.x. of the Louisiana Department of Education’s Louisiana Literacy Plan call for ongoing formative assessment (Louisiana Department of Education, 2006b).</p> <p>In response to teachers’ requests for more finely grained reporting of student performance (substrand level) to make meaningful data-driven instructional decisions, the department secured a grant to develop Enhanced Assessments of Grade-Level Expectations (EAGLE). The state saw this as an opportunity to incorporate current research on formative assessment, making the online tool serve multiple purposes. The state hopes to match timelines with other initiatives, such as end-of-course tests, with the goal of being operational in May 2007 (Chou 2006; interview with Louisiana Department of Education project director Ron May, March 13, 2007).</p>	<p>A web site is provided with downloadable items for practice testing (LEAP and GEE); Louisiana Department of Education http://www.doe.state.la.us/lde/saa/760.html.</p> <p>See Practice Assessment/ Strengthen Skills (PASS) program described below, under table C5.</p>

TABLE C3 (CONTINUED)

Research question 2: What state policies or programs related to formative assessment are in place in each Southwest Region state?

State	State education agency regulations, codes, and laws	State education agency policies and programs	State education agency policies on released test items
Louisiana (continued)		<p>This new formative assessment system gives teachers access to an online pool of items—approximately five per grade-level expectation (GLE)—aligned to K–12 standards/ GLEs in English and language arts, math, science, and social studies. It provides detailed information about student learning in an on-demand environment. Used diagnostically before instruction to develop or modify lesson plans during instruction or to evaluate student competency after an instructional unit, EAGLE supplies GLE-aligned items in a vendor-developed item bank. Teachers select items to create their own tests, or use pre-made tests, and then develop tutorials. Computer-automated scoring of multiple-choice items (MCs) is combined with hand scoring of some short answer items and compositions. With immediate feedback on MCs, students may take tests, check their scores, and practice new skills. Teachers are trained in hand-scoring criterion-referenced tests and can use EAGLE to deliver information to students (such as feedback on homework). Student self assessment and goal setting are encouraged through guided feedback, helping students identify sources of error and types of mistakes, and develop new learning skills to reach goals. The system provides four reporting options for students and six for teachers. It is linked to instructional resources for teachers and professional development opportunities for teachers and administrators.</p> <p>Practice Assessment/ Strengthen Skills (PASS), developed with Pacific Metrics, provides online practice tests in English and language arts, math, science, and social studies (print version also available). Students learn general test-taking skills. PASS gives them an opportunity to practice skills assessed on the Louisiana Educational Assessment Program (LEAP) 21 and graduation exit exam 21. There are elementary, middle, and high school versions. Students can get instructional feedback geared to their responses. PASS is based on formative-assessment research (Boston, 2002 and others) on the effectiveness of feedback-driven integration of instruction and assessment. PASS can be used by individuals or a group, at home or at school. Teachers cannot access scores (Louisiana Department of Education, nd).</p>	

(CONTINUED)

TABLE C3 (CONTINUED)

Research question 2: What state policies or programs related to formative assessment are in place in each Southwest Region state?

State	State education agency regulations, codes, and laws	State education agency policies and programs	State education agency policies on released test items
New Mexico	Reading pre- and post-instruction tests for kindergarteners are provided through the New Mexico Reading Excellence Act (2000).	<p>The New Mexico Public Education Department convened a task force (department specialists and district representatives) to develop a consumer guide for formative assessments to guide districts in decisionmaking as they review vendor materials (New Mexico Public Education Department, 2006b). The New Mexico <i>Consumer Guide</i> reviews literature on formative assessment and shelf products. Fifteen criteria are used to evaluate product strengths and limitations. Vendors are encouraged to submit products for review. Districts can also request that certain products be reviewed. The department endorses the use of the <i>Consumer Guide</i> to facilitate professional development and linkage to state standards. However, they are seen as an interim measure to help districts until state formative assessments can be developed (New Mexico Public Education Department, 2006b; Maple, 2006).</p> <p>In 2007 the department filed a request for proposals for the development of a voluntary state curriculum, with lesson plans and curriculum aligned to the American Diploma Project and National Assessment of Educational Progress (math in 2007/08, reading and science in 2008/09). The move is intended to support local formative assessment efforts (interview with Dr. Karen Harvey, April 2007).</p>	<p>Memo from Public Education Department notifying districts of released items (Garcia, 2005).</p> <p>Released items available on state web site (New Mexico Public Education Department, 2006a).</p>
Oklahoma	Oklahoma School Law, Article V (Oklahoma School Testing Program Act) and Oklahoma Administrative Code 210:10-13 (2003 Revisions): Section 889 support diagnostic testing, in association with the Reading Sufficiency Act and Reading Proficiency Act (Oklahoma State Department of Education, nd-d; Oklahoma Legislature, nd).	Data from end-of-course exams are reported to districts. The data can be used diagnostically at the student level and formatively to guide instruction and remediation (Oklahoma State Department of Education, nd-c).	<p>Oklahoma School Law, Article V (Oklahoma School Testing Program Act) and Oklahoma Administrative Code 210:10-13 (2003 Revisions): Section 888 provide sample test items for formative use (Oklahoma State Department of Education, nd-d).</p> <p>Teachers can access items for use in creating practice tests (Oklahoma State Department of Education, nd-c).</p>

TABLE C3 (CONTINUED)

Research question 2: What state policies or programs related to formative assessment are in place in each Southwest Region state?

State	State education agency regulations, codes, and laws	State education agency policies and programs	State education agency policies on released test items
Texas	<p>Texas Administrative Code, title 19, part 2, chapter 101.</p> <p>Texas Education Code, subtitle H, chapter 39, subchapter B.</p> <p>The Student Success Initiative was created by the Texas legislature to ensure that all students receive the instruction and support needed to succeed in reading and math. The initiative provides support for students at risk of retention (those who failed to pass the Texas Assessment of Knowledge and Skills [TAKS] at grades 3, 5, and 8). Grade-Placement Committees use formative assessments to develop personal education plans for students (Texas Education Agency, 2007b).</p>	<p>Texas Education Agency, Commissioner's Ruling in support of Student Success Initiative: subchapter BB of chapter 101 of Texas Administrative Code, title 19, part 2 (Texas Education Agency, 2007b).</p> <p>The Technology Immersion Pilot (TIP), a tool for administering diagnostic assessments, delivers on-demand data about student proficiency for customizing instruction and implementing interventions. Aligned with state standards, TIP can be used individually or by a group (Texas Education Agency, 2006b).</p> <p>Anita Givens (the agency's director for instructional materials and education technology) administered a successful pilot using handhelds for formative assessment of early reading (Texas Education Agency, 2004).</p>	<p>Section 101.33 of the Texas Administration Code states that online or hard copies of released items can be used formatively (Texas Education Agency, nd-b).</p> <p>Online practice tests for end-of-course tests and released items from TAKS and Texas Assessment of Academic Skills (TAAS) can be used formatively (Texas Education Agency, 2006a).</p>

TABLE C4

Research question 3: What types of support link state policies with district formative assessment practices?

State	Professional development opportunities	Resources	Product endorsements
Arkansas	<p>Professional development time can include “developing assessments for learning (formative assessments),” according to the Arkansas Department of Education’s <i>Rules Governing Professional Development</i> (Arkansas Department of Education, 2005, 5.05.03, p. 7).</p> <p>Formative assessment is an approved topic for professional development, so that teachers can learn to develop, interpret, and use formative assessments in each subject area (Arkansas Department of Education, 2005).</p> <p>The department supports the use of Positive Behavior Support funds for professional development. A federal grant provides training for educators to use student discipline data formatively as intervention for students with behavioral issues (James, 2004).</p> <p>The department supports staff development in using data derived from the Arkansas Target Testing Initiative (see table C5) through Arkansas Education Service Cooperatives (South Central Service Cooperative, nd).</p> <p>Training for teachers (K–3 and special education) uses the results from Dynamic Indicators of Early Literacy Success (DIBELS) formatively in developing individualized intervention plans (Arkansas Department of Education, 2006d).</p> <p>The Educational Testing Service offers professional development (Webinars) to teachers using a Formative Assessment Item Bank (Educational Testing Service, 2007).</p>	<p><i>The National Office for Research on Measurement and Evaluation Systems</i> (University of Arkansas) provides the Enterprise Guide for Educators, giving state teachers access to data “for use in the improvement of classroom instruction” (National Office for Research, Measurement, and Evaluation, 2007).</p>	<p>The Triand web-based system is used to manage data associated with district formative testing (Arkansas Department of Education, nd).</p>
Louisiana	<p>Professional development is provided for all districts in using the state’s formative assessment tool, Enhanced Assessments of Grade-Level Expectations (EAGLE, see table C3).</p> <p>The state provides a Practice Assessment/ Strengthen Skills (PASS) <i>Teacher’s Guide</i>, instructional brochures, and a Help Desk (PASS, see table C3).</p> <p>The Educational Testing Service offers professional development (Webinars) to teachers using a Formative Assessment Item Bank (Educational Testing Service, 2007).</p>	<p>After Katrina, the American Education Corp (AEC, based in Oklahoma) offered free access to online assessments for displaced K–12 students so that receiving schools have a diagnostic tool for judging student skill levels. Formative assessments are provided in math, reading, science, and social studies (American Education Corporation, 2005).</p> <p>EAGLE, a formative assessment tool, is provided to all districts (see table C3).</p>	<p>No evidence.</p>

TABLE C4 (CONTINUED)

Research question 3: What types of support link state policies with district formative assessment practices?

State	Professional development opportunities	Resources	Product endorsements
New Mexico	No evidence.	The New Mexico <i>Consumer Guide</i> reviews the literature on formative assessment and shelf products (see table C3).	No evidence.
Oklahoma	The Educational Testing Service offers professional development (Webinars) to teachers using its Formative Assessment Item Bank (Educational Testing Service, 2007).	No evidence.	The Oklahoma State Department of Education endorses a product called Data Connections: Using Assessment to Improve Teaching and Learning (Appalachia Education Laboratory and Edvantia, 2003).
Texas	<p>The Technology Immersion Pilot offers a professional development component and technical support (see table C3; Texas Education Agency, 2006b).</p> <p>The Educational Testing Service offers professional development (Webinars) to teachers using its Formative Assessment Item Bank (Educational Testing Service, 2007).</p>	The Technology Immersion Pilot is a tool for administering online diagnostic assessments (see table C3; Texas Education Agency, 2006b).	Through the state's Student Success Initiative, districts can use Pearson's Progress Assessment Series (PAS), an online formative assessment series based on lexiles (reading) and quantiles (math) and "designed to guide instructional support decisions when used diagnostically." PAS is linked to Texas standards (Pearson, 2007b).

TABLE C5

Research question 4: What examples of district-initiated formative assessment practices can be identified in each Southwest Region state?

State	Examples
Arkansas	<p>Ten Arkansas Education Services Cooperatives are collaborating on the Arkansas Target Testing Initiative, a formative assessment initiative that offers schools access to four tests with items “very similar to the items included in the state benchmark and end of level exams.” The items have been developed to help teachers focus on student strengths and weaknesses prior to the state exams. The testing initiative also provides schools with instructional pacing guides for each content area (South Central Service Cooperative, nd).</p> <p>Princeton Review shelf tests are used formatively in Little Rock.</p> <p>The Educational Testing Service Formative Assessment Item Bank is used in some districts (Educational Testing Service, 2007).</p> <p>Smart Tutor, a web-based system for assessment-driven differentiated instruction, is used diagnostically in some high-risk districts (Learning Today, 2006).</p> <p>Many districts have comments about using data formatively in handbooks for teachers.</p> <p>Dynamic Indicators of Early Literacy Success (DIBELS) is used in primary grades in many districts (Arkansas Department of Education, 2006d).</p> <p>The Arkansas Learning Management System is a community of schools that shares instructional materials, including test items for formative use (Arkansas Learning Management System, 2004).</p> <p>According to the National Center for Educational Accountability, successful middle schools in Arkansas are using formative assessment to monitor student progress and evaluate instruction. The schools support “landmark” testing (National Center for Educational Accountability, 2006).</p>
Louisiana	<p>The Educational Testing Service Formative Assessment Item Bank is used in some districts (Educational Testing Service, 2007).</p> <p>According to the National Center for Educational Accountability, schools from five parishes received awards for best practices because they use regularly collected data, the PASS system, or a number of diagnostic tools to guide curricular and instructional adjustments, leading to higher performance data (Just for the Kids, Louisiana Elementary Best Practice Study 2004–05 (National Center for Educational Accountability, 2006).</p> <p>The Union Parish School District uses Pearson’s Classroom Performance System (CPS), a hand-held device for tracking feedback, to monitor student learning (Pearson, 2007a).</p>
New Mexico	<p>One district (Las Cruces Public Schools) developed a comprehensive online Curriculum Alignment Matrix and posts links to formative assessment items for each grade and subject. Formative assessment is explicitly incorporated in the Curriculum Alignment Matrix, with web tools that guide schools in combining pacing guides, state test results, and local formative assessment initiatives to raise student achievement (Las Cruces Public Schools, 2006; personal communication with district representative, May 2007).</p> <p>Some districts are using ThinkLink for periodic online testing that is benchmark-based (correlated with state standards). Teachers also can create their own testlets from their item banks (Discovery Education, nd).</p> <p>According to the National Center for Educational Accountability, some award-winning districts used packaged instructional programs (purchased with local monies) that included formative assessments. Teachers commented that they like it when formative assessments look like the state test because then weekly tests look like end-of-year tests. Many different assessments are used by others to help identify competencies in which students require further instruction and individual students who are falling behind and need tutoring. Others use formative assessment results to modify instruction (National Center for Educational Accountability, 2006).</p>

TABLE C5 (CONTINUED)

Research question 4: What examples of district-initiated formative assessment practices can be identified in each Southwest Region state?

State	Examples
Oklahoma	<p>Some districts developed online systems, such as a Student Information System, to monitor formative assessment data.</p> <p>The Educational Testing Service Formative Assessment Item Bank is used in some districts (Educational Testing Service 2007).</p> <p>Scantron formative and diagnostic programs are used in some districts (Scantron Corporation, 2007).</p> <p>Many districts use diagnostic testing to assess the appropriateness of special education for struggling students.</p> <p>According to the National Center for Educational Accountability, successful middle schools in Oklahoma are using multiple tests (such as district-developed, standards-aligned, criterion-referenced tests or the Stanford Achievement Test–10) formatively to monitor individual student progress and evaluate instruction. Some are using monthly benchmark assessments combined with observation (National Center for Educational Accountability, 2006).</p> <p>The Jenks Public Schools were awarded a national quality award for ongoing use of formative assessment data. They use pre-/post-tests and Essential Skills (National Institute of Standards and Technology, 2007; personal communication with district representative, May 2007).</p>
Texas	<p>The Educational Testing Service Formative Assessment Item Bank is used in some districts (Educational Testing Service, 2007).</p> <p>The Clarksville Independent School District is using a combination of the Technology Immersion Pilot (Texas Education Agency, 2006b) and CTB/McGraw-Hill's i-Know program (CTB/McGraw-Hill, 2007).</p> <p>According to the National Center for Educational Accountability, three high schools were found to be award-winning, using pyramids of interventions based on formative and summative data and providing professional development related to formative assessment (National Center for Educational Accountability, 2006).</p>

APPENDIX D
LETTER OF INTRODUCTION TO
DISTRICT SUPERINTENDENTS

May 25, 2007



Superintendent
District Name
District Address
District City, Zip

Dear [Superintendent]:

As part of a research study we are conducting on behalf of the Regional Educational Laboratory Southwest (REL-SW), your district was identified as one that has implemented a formative assessment initiative. The research study focuses on formative assessment initiatives that have been implemented in each state in the region (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas). We are writing to request your permission to speak via telephone with a district representative who is knowledgeable about your district's formative assessment initiatives. This brief (10–15 minutes) telephone interview is intended to provide information to supplement the data that were collected from state and district documents and Web sites, as well as through interviews with state-level personnel.

At your earliest convenience, we would appreciate your forwarding to us the name and contact information for your formative assessment designee. Alternatively, the designee may contact us directly via the telephone numbers or email addresses provided below. We will be available to speak with your designated representative at his or her convenience.

We appreciate your cooperation with this important research effort. As a token of our appreciation, we will ensure that your district receives a copy of the final report following its approval by the U.S. Department of Education, Institute of Education Sciences.

Sincerely,

Carole Gallagher, Ph.D.
415-615-3211
cgallag@wested.org

Peter Worth
415-615-3336
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APPENDIX E QUESTIONS FOR DISTRICT REPRESENTATIVES RESPONDING BY EMAIL

Interview Goals

It is hoped that responses to these questions will support the formative assessment research study by contributing to a more comprehensive understanding of the ways in which formative assessment initiatives are implemented at the district level and by clarifying information about this initiative for the final report.

Questions

1. Please describe your district's formative assessment initiative.
2. What was your district's rationale for implementing this initiative? What do you hope to accomplish? How are formative assessment data currently used at the school and district levels?
3. In what ways has the state guided or supported the development of formative assessment practices in the district? What resources, financial or otherwise, have been provided? What training or professional development was provided? Does the state monitor implementation of this program in your district?
4. What have been the effects of this formative assessment initiative? Have you received feedback from the state, schools, or other sources on the effectiveness of the formative assessment initiative you implemented? What is working? How is it helpful at the school and district levels?
5. What could be improved in your district's formative assessment initiative? What would need to happen for that improvement to occur?

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