DEEP DIVE: CURRENT MODELS OF DISTRIBUTED ASSESSMENT SYSTEMS IN SCIENCE

These resources are part of a series of reports about challenges facing statewide science assessments and innovative solutions states are enacting to meet those challenges.

Transforming Science Assessment: Systems for Innovation *is a series of resources designed to provide state education leaders with 1) information about* ***how states are currently pursuing statewide assessment systems in science****; 2)* ***analyses of what features influence different approaches****, with an eye to supporting state leaders as they make their own decisions regarding science assessment systems; 3)* ***detailed state profiles*** *that highlight how and why some states have made decisions regarding designing and enacting different examples of systems of assessment; and 4)* ***a how-to guide for policymakers*** *looking to enact systems of assessment in science. Some readers may find that it is helpful to review all the resources in this series; others might be particularly interested in a specific component of this report.*

The suite of resources is organized in the following sections:

- *A high-level introduction to science standards and assessment, the need for systems of assessments in science, and two major styles of approaches that are emerging from state efforts to turn the vision for a system of assessments in science into a reality*
- *Deep dive into state-led assessment systems in science*
- *Deep dive into distributed assessment systems in science* ***(you are here)***
- *State Spotlights on systems of assessment in Nebraska, Kentucky, and Michigan*
- *A guide for policymakers to help consider how to develop and implement assessment systems*

Introduction

By their very nature, distributed assessment systems are more fluid and have more variation in how they are designed and implemented. Here, we discuss two models that are emerging as common approaches to distributed assessment systems: those that are supported by the state and those that are supported by partner organizations. It should be noted that a third model is likely emerging: one this is driven primarily by individual districts. This model is not addressed here because of the limited information available, but the assessment system landscape and analysis will be updated to include such models when appropriate.

Model A: State-Supported Distributed Assessment System

In this model, **districts—individual or networks—drive the priorities, design, implementation, and interpretation of all assessments other than the statewide summative assessment, with support for this work from the state.** Relevant state contextual features include:

- Local control over curricular decisions and course pathways for grades 6-12
- Assessment information must be available for local accountability measures
- High degrees of geographic and student diversity
- Strong state science leadership, but limited buy-in, capacity, and resources from the rest of the SEA

Table 1: Centrally-Signaled Assessment System Summary

System component	Who leads development?	Content focus	Goals and intended use
Instructionally-embedded assessments	Teachers, districts, curriculum designers	Wide range of targets	Provide ongoing feedback to students and teachers to inform instruction and mark progress
Interim/ through-course assessments: Task bank that educators draw from at a prescribed frequency; educator choice in tasks selected	District coordinated; state support for assessment literacy, professional learning, and open communication about assessment system vision; possible support for coordination for some districts	Locally determined	Locally determined
Statewide summative assessments	State coordinated	Represent all 3D topics in standards	Provide individual student scores; meet federal requirements; provide monitoring/program progress information

Model B: Partner-Supported Distributed Assessment System

This model differs from Model A in that **the major driver of assessment system development is districts with support from partner organizations, rather than direct support from the state.** This can take many forms, with partners ranging from funders/funder-driven initiatives, third-party organized networks and technical support, and district-driven partnerships with higher education, informal education, etc. Some relevant state and district contextual factors that helped create this model include:

- Local control over curricular decisions and course pathways for grades 6-12, with common curriculum framework
- High degrees of geographic and student diversity
- Strong partner ties to STEM/science
- Strong state-partner networks
- Strong regional centers

Table 2: Partner-Supported Distributed Assessment System Summary

System component	Who leads development?	Content focus	Goals and intended use
Instructionally-embedded assessments	Teachers, districts, curriculum designers	Wide range of targets	Provide ongoing feedback to students and teachers to inform instruction and mark progress
Interim/ through-course assessment: Task bank that educators draw from at a prescribed frequency; educator choice in tasks selected	District, region, and/or partners; limited direct state support	Locally determined	Locally determined
Integrative transfer assessments	State coordinated	All PEs in each grade band	Provide individual student scores; meet federal requirements; provide monitoring/program progress information