

## THE ALTERNATE ASSESSMENT CONSORTIA: DYNAMIC LEARNING MAPS (DLM)

- **MEMBERSHIP:** 13 states (Iowa, Kansas, Michigan, Mississippi, Missouri, New Jersey, North Carolina, Oklahoma, Utah, Virginia, Washington, West Virginia, Wisconsin) serving approximately 60,000 students who require an alternate assessment
- **GOVERNANCE:** Two representatives from each member state (one assessment and one special education representative), Neal Kingston of the Center for Educational Testing and Evaluation (CETE), and four external members: Brian Gong of the National Center for the Improvement of Educational Assessment; Jim Pellegrino of the University of Illinois at Chicago; Ed Roeber of Michigan State University; and Jim Ysseldyke of the University of Minnesota
- **PROJECT MANAGEMENT PARTNER:** CETE at the University of Kansas serves as the host, fiscal agent, and project management lead in partnership with member states and three additional partner organizations: the University of North Carolina at Chapel Hill on professional development and support materials; Edvantia, Inc., on alternate standards definitions and project evaluation; and The Arc on the reporting system and dissemination
- **AWARD:** \$22 million from the Office of Special Education Programs, U.S. Department of Education

This information is accurate as of January 6, 2012.

The following summary of the DLM assessment system has been approved by the DLM.

The purpose of the DLM assessment system is to significantly improve the academic outcomes of students with the most significant cognitive disabilities, thereby improving their preparedness for postsecondary options and the world of work. The assessment system will be designed to provide useful, timely diagnostic information and strong instructional support to teachers through a highly customizable system of instructionally embedded and end-of-year assessments.

In addition, professional development resources will be developed by DLM to provide Individualized Education Program (IEP)<sup>1</sup> teams with clear, consistent guidelines for the identification of students for the alternate assessment and to train teachers in the use of the assessment system.

<sup>1</sup> IEP, mandated by the federal Individuals with Disabilities Education Act, is a written plan for a student with disabilities that describes how the student learns, how the student best demonstrates that learning, and the services, supports, and special instruction that the student requires to learn more effectively.

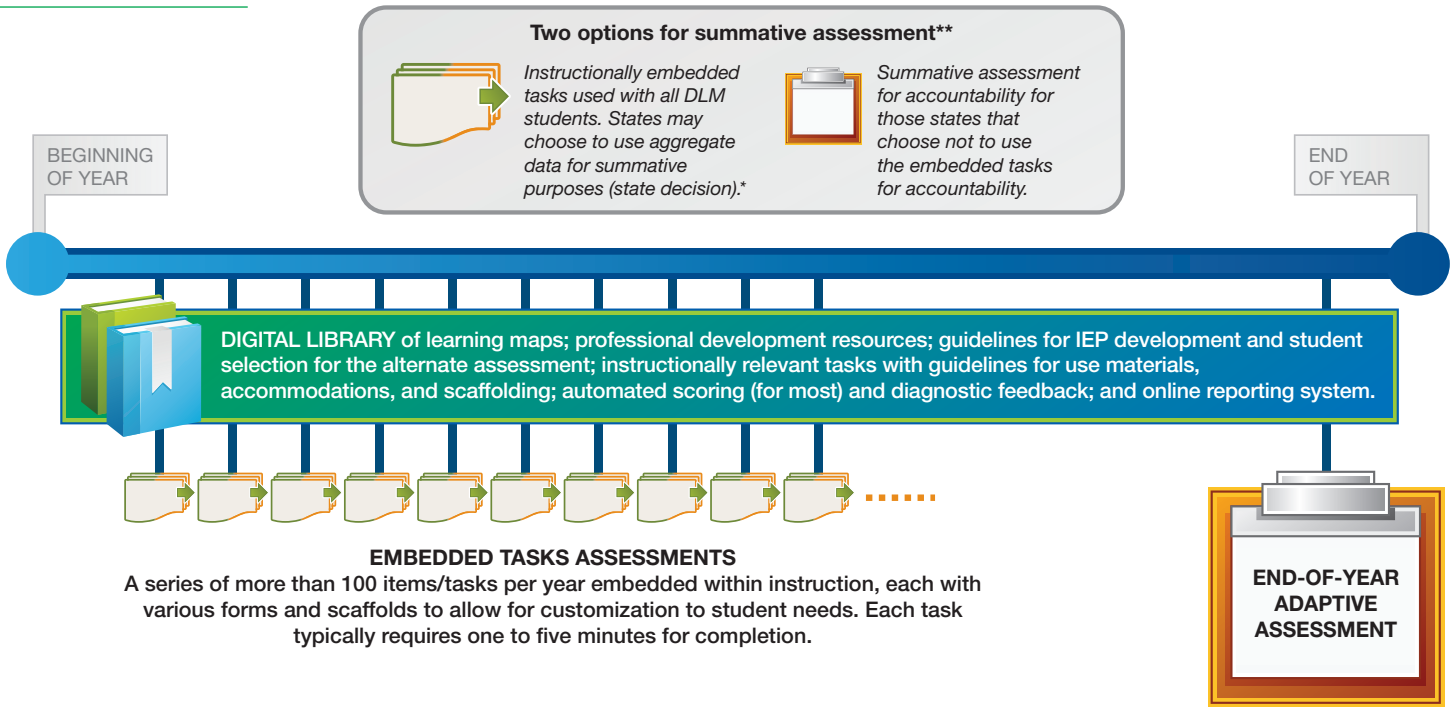
<sup>2</sup> Research will be conducted to determine the technical feasibility of using assessment data collected through the year as the basis for summative decisions and use in state accountability systems.

## SYSTEM COMPONENTS

### SUMMATIVE ASSESSMENTS FOR ACCOUNTABILITY

A unique proposed aspect of the DLM system, which will be implemented only if upcoming research supports it, is that states will be given two options for the administration of the summative assessments.

- The first option utilizes the DLM items and tasks that will be given to all alternate assessment students as part of their day-to-day instructional activities so that teachers can use the results to tailor instruction to meet student needs. Under this option, 100 or more items or tasks will be given to a student over the course of the school year and the results will be used to make summative decisions.<sup>2</sup>
- The second option is a stand-alone summative assessment that will branch or adapt based on mastery of concepts in the learning map and will be given in the spring of the school year.



\* Alternate assessment systems are those developed for students with the most significant cognitive disabilities and are based on alternate achievement standards.  
\*\*Research will be conducted to review the technical feasibility of using data from the tasks for summative accountability purposes.

Both options are based on the DLM learning maps, described below, and will provide many options for customizing the assessment to the individual abilities and needs of students. In addition, both will be designed to provide teachers, students, and parents detailed information to guide and support learning.

**Common Core Essential Elements (CCEE) and Learning Maps:** DLM began its development work by defining links to the grade-level Common Core State Standards (CCSS) in English language arts and mathematics through statements of essential elements and achievement descriptors for students who take the alternate assessment.<sup>3</sup> Simultaneously, learning map development has been proceeding for about a year. DLM describes a learning map as being similar to a superhighway with multiple pathways to common destinations. In the DLM maps, the “destination” for all students will be based on the CCEE.

A fundamental feature of learning maps is that they do not assume a single, linear route for all students, but seek to allow and provide support for multiple pathways.

Another important aspect of learning maps is that they not only include the definitions of the subject-specific skills that students will acquire — such as being able

to add a series of three-digit numbers or define a vocabulary word — but also provide useful delineation of the:

- precursor academic skills needed to master the tested skill;
- communication skills required to communicate answers through speech, pointing, or other means; and
- attention skills needed to focus on the task or item.

As the skills in the learning maps are defined, universal design principles will be used to ensure that the description of the skill does not disadvantage some populations. Each skill will be written so it can be accessed through multiple cognitive pathways, where appropriate, and measured appropriately.

Throughout the school year, as a student completes instructionally embedded tasks and the responses are entered into the DLM system, the student’s learning will be mapped and the teacher will be given diagnostic feedback and instructional guidance.

<sup>3</sup> View the linked standards and achievement level descriptors at [www.dynamiclearningmaps.org](http://www.dynamiclearningmaps.org).

**Dynamic Adaptive Delivery:** The DLM system will utilize dynamic delivery, which is a variant of adaptive delivery. Under traditional, item-by-item adaptive delivery, items are selected based on their difficulty. A correct response results in the selection of a more difficult item to follow and an incorrect response leads to a less difficult item. In contrast, dynamic delivery relies on several pieces of information — the student’s level of success with the previous item/task and the position in the learning map of the skills tapped by the task (and thus the amount of support or prompting required) — to select the next item. In addition, it provides immediate corrective feedback to the student, when needed. Dynamic delivery, therefore, integrates assessment and instruction. Dynamic delivery will be used for both the instructionally embedded items and the end-of-year assessment. All students using the DLM assessments will utilize these tasks throughout the school year and, pending the results of a research activity, states may opt to use the results from these embedded tasks for summative and accountability purposes.

**Types of Items and Tasks:** A variety of item types will be utilized, all of which will adhere to universal design and evidence-centered design principles to ensure the assessments are accessible to the broadest range of students and produce valid results.

Items will be designed to be instructionally relevant. For each grade and subject slated to be assessed, the Consortium will convene a panel of master teachers which will review the extended content standards and develop activities that teachers could use to teach the skills. Task developers will use these activities to guide the development of items and tasks. For each item or task in the assessment system, lists of materials or manipulatives needed, and allowed and prohibited accommodations, levels of scaffolding will be provided. Multiple tasks will be developed for each skill being assessed to allow for differentiation based on student needs and disabilities. Most tasks are expected to require 1–5 minutes for a student to complete.

**Presentation of Items and Tasks:** The presentation of items will vary based on the abilities and needs of the student and the skill being assessed. Students who can complete the assessments on a computer, with or without the use of assistive technologies, will be allowed to do so. The system will be designed to be accessible to students who are deaf, hard of hearing, blind, or have low vision, along with those with neuromuscular, orthopedic, or other motor disabilities. Students will be able to enter responses through keyboards, switch systems, a computer mouse, or touch-screen

technology when available. The system also will be compatible with a variety of common assistive technologies and allow for varying levels of teacher assistance. For students unable to use computers without assistance, teachers will administer items offline and enter responses into the system.

**Scoring:** The majority of items and tasks, representing varying types, will be designed to be scored via computer. In some cases, the teacher may observe the student performing a task and then enter a score based on a rubric that defines levels of accuracy and quality of student performance. In both cases, the system will be able to identify missing precursor skills that interfere with student learning and to propose the next task in the learning map.

**Measuring Growth:** In order to provide consistency between the comprehensive assessment systems being developed by the Partnership for Assessment Readiness for College and Careers, the SMARTER Balanced Assessment Consortium, and DLM, the growth modeling methods used by those Consortia will be studied to determine compatible adaptations appropriate for both the embedded and end-of-year summative assessments. Measures of growth unique to a learning map-based system also will be studied.

**Accountability:** Subject to research and technical approval of both delivery options for use as the summative assessment (see footnote 2 on page 1), states will be able to choose between using an end-of-year stand-alone assessment for accountability purposes or using the data from the embedded items and tasks given throughout the school year.

**Reporting:** The reporting system will produce online as well as printable student and group-level results. A combination of existing best practices in reporting and an iterative series of focus groups will be used to ensure clear, useful reports for each major audience (teachers, students, parents). These reports and accompanying interpretive guides will be designed to communicate each student’s current performance position, as well as growth within the learning maps. Each audience will be provided information that can be readily used to make better decisions that support the academic needs and progress of the student. In addition, the online versions for teachers will include links to professional development that will help teachers interpret the score reports in order to adjust instruction.

## RESOURCES, TOOLS, AND CAPACITY BUILDING

**Professional Development Resources:** The Center for Literacy and Disability Studies of the University of North Carolina at Chapel Hill will lead professional development activities for the DLM. Representatives of member states will identify the range of topics, modes of delivery, and types of support most important for their states.

Professional development modules will be developed and offered through the Consortium’s digital library for at least three modes of delivery: independent study, train-the-trainers, and online training. The DLM online system will allow educators to view online materials, download written materials, register for professional development classes that states or districts might offer, and access online professional development.

In order to support teachers’ efforts to meet the wide range of needs in this student population, DLM will utilize a research-based framework, Universal Design for Learning (UDL), during the development of professional development resources. This approach includes and exceeds the factors considered under universal design and leads to flexible instructional materials, techniques, and strategies that help teachers differentiate instruction to meet students’ varied needs. The UDL methodology does this by incorporating options for: a) the presentation of information and content; b) the types of responses students can give to express what they know; and c) the engagement of students.<sup>4</sup>

The professional development modules will incorporate materials and work samples. The content of the modules will be guided by the Consortium members, but it will likely include:

- implementation of the CCEE identified by DLM;
- explanation of how the standards, learning maps, and assessments were developed;
- UDL and its use;
- how the standards, assessments, and instruction are integrated; and
- goal setting, IEP development, and selection of students to participate in the alternate assessment.

To download this document or for more information about the Consortia, visit [www.k12center.org](http://www.k12center.org)

For more information about DLM, visit [www.dynamiclearningmaps.org](http://www.dynamiclearningmaps.org)

## TIMELINE

January/February 2012	Essential elements based on the CCSS developed Achievement-level descriptors developed
March 2012	Test blueprints developed Development of tasks for learning maps begins
June 2012	Pilot testing begins
September 2012	Learning maps delivered
2012–13	Field test professional development modules and make revisions
2013–2014	Professional development modules ready for use Test delivery software ready for use
2014–15 school year	The DLM Alternate Assessment System is operational (operational field test) Instructionally embedded tasks and stand-alone summative test available for use and field tested
August/September 2015	Professional development program validated Assessment system evaluated

## TECHNOLOGY

DLM plans to utilize proven open-source technology platforms to ensure that the system is affordable and can accommodate additional state partners over time. The system will include four major components: Content Builder, Test Delivery, Management and Reporting, and Learning Map Software. These systems provide for task development, local management of administration options, professional development resource delivery, test/task administration including support for various assistive technologies, a reporting suite, and learning map software.

<sup>4</sup> Visit [www.cast.org](http://www.cast.org) for more information about UDL.