National Center and State Collaborative

NCSC Brief

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NCSC's Content Model for Grade-Aligned Instruction and Assessment: "The Same Curriculum for All Students"

Introduction

All students deserve the opportunity to learn challenging content that prepares them for future success. Recent federal guidance[1] requiring access to the general curriculum for all students with disabilities emphasized that students with disabilities should have the opportunity to learn the *same curriculum* as students who do not have disabilities. The guidance defined the *same curriculum* as "based on the State's academic content standards for the grade in which a student is enrolled." For students with significant cognitive disabilities who are performing well below grade-level expectations, the curriculum is to be based on grade-level content standards for the student's enrolled grade, although instruction and assessment may focus on alternate rather than grade-level achievement.[2]

The National Center and State Collaborative (NCSC) has designed and implemented instructional models and assessments aligned to challenging grade-level content standards, based on alternate achievement. NCSC's instruction and assessment reflected the belief that academic content from the standards at each grade level provides instructional and assessment targets for all students, including those with the most significant disabilities. How typically developing students develop knowledge and skills in the grade-level content was used as the foundation to ensure access to the same content, in a comparable sequence, for all students. NCSC resources then were created for students working toward alternate achievement of grade-level content. These resources built on a growing research base that students with significant cognitive disabilities can succeed in learning academic content aligned to their chronologically age-appropriate grade-level content standards, and adapted to alternate achievement.[3] In other words, the content is the same, but at a less complex performance expectation (see box).

NCSC's Approach to Grade-aligned Content with Alternate Achievement

NCSC developed its approach through extensive planning with content experts, assessment experts, special educators, and state leaders. The foundation of the NCSC approach is that

[1]OSERS Policy Guidance on Free and Appropriate Public Education. Available at: https://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/guidance-on-fape-11-17-2015.pdf

[2]"Alternate achievement" refers to instructional content that matches the curriculum of students who do not have disabilities in the same assigned grade, but varies in depth, breadth, or complexity of learning outcomes expected.

[3]For a synthesis of some of this research see: Browder, D.M., & Spooner, F. (Eds.) (2014). *More language arts, math, and science for students with severe disabilities.* Baltimore, MD: Paul H. Brookes.

the content is the same as in the curriculum for students who do not have disabilities. NCSC based its work on the Common Core State Standards (CCSS), although several states also adapted the work to their own state content standards.

Example of Adapted Grade-aligned Content

Using a middle school English Language Arts lesson in a multi-grade class reading *The Broken Shard,*[4] the teacher makes the content accessible by adapting the text into a summary with a reduced reading level. The student with significant cognitive disabilities accesses the text through a teacher or peer read aloud, technology, or by independently reading the simplified text. State standards for grades 6, 7, and 8 include a focus on students being able to (a) analyze how a theme is developed over time with plot and characters, and (b) summarize the text.

A student working toward grade-level achievement may do this by writing about the story using text details to support points made. A student with significant cognitive disabilities working toward alternate achievement may prepare a similar essay by filling in a graphic organizer using words or pictures. For example, the student might paste words or pictures into a chart to provide details related to the theme. Although performance expectations are different for students with significant cognitive disabilities, the content is the same through the use of: (a) the same novel, (b) the same general activity (reading and writing about the text), and (c) the same state content standard (analyzing theme).

[4]A sample lesson plan for *The Broken Shard* can be found on the NCSC wiki: https://wiki.ncscpartners.org/index.php/English_Language_Arts_Sample_Systematic_Instruction_Script:_Middle_School_Narrative_Text

The purpose of this Brief is to highlight the path NCSC followed to produce an assessment and models of curriculum and instruction that are grade-aligned with alternate achievement. The path included addressing the following questions:

1. What is grade-level content?
2. How does learning change from grade to grade?
3. How can students with significant cognitive disabilities learn grade-level content while also building basic numeracy and literacy?
4. How can an alternate assessment based on alternate achievement standards (AA-AAS) be built on the NCSC content model?

1. What is grade-level content?

NCSC states had extensive discussions about whether content standards should be adapted for students with significant cognitive disabilities.[5] Ultimately, NCSC concluded that adaptation should occur during the design of instructional units and assessments, not by changing the content standards. Learning progression frameworks were used as a mechanism for understanding the logic and pathway for typical student learning.[6]

To bridge grade-level content standards and typical learning progressions, NCSC identified the grade-level content that was most critical to address for students with significant cognitive disabilities to ensure these students could move from grade to grade content with their peers without disabilities in meaningful, naturally occurring pathways. In some cases, complex content standards were broken into smaller segments to help pinpoint targets for instruction.[7] The language of the content standards was in

[5]In the past, many states had developed "extended" or "expanded" content standards.
[6]The learning progressions frameworks can be found at https://wiki.ncscpartners.org/index.php/Learning_Progression_Frameworks.
[7]https://wiki.ncscpartners.org/index.php/Core_Content_Connectors

almost all cases retained to maintain a close grade-level connection. These critical content bridges between the state content standards and learning progression pathways were called Core Content Connectors (CCCs), which retained grade-level content.

2. How does learning change from grade to grade?

The second foundational step for NCSC was to articulate how students with significant cognitive disabilities learn the content within and across grade levels. This involved defining a model of "domain learning" that reflected appropriately high but attainable alternate achievement on the grade-level content.

One of the challenges to doing this was that many students with significant cognitive disabilities had not had prior rigorous academic instruction. Many also had unique learning challenges that affected their academic learning, such as difficulty with memorization and reasoning.

Given these challenges, many students with significant cognitive disabilities may enter the content at an early numeracy or literacy level, regardless of their age or grade. NCSC focused on how most effectively and efficiently to model how students can apply what they can do (e.g., identify numbers to 5 or identify a picture) to what the grade-level content required (e.g., build an equation using those numbers to 5 or the picture to show the theme of the text).

NCSC's approach is in contrast to the practice of following typical developmental patterns and the assumption that every step of a typical learning progression is necessary before a student can move beyond introductory skills and knowledge. When developmental sequences are strictly applied to students with significant cognitive disabilities, students may stall at early childhood content for the rest of their school career. When that happens, instruction is not age appropriate and does not offer access to the general curriculum based on enrolled-grade content standards.

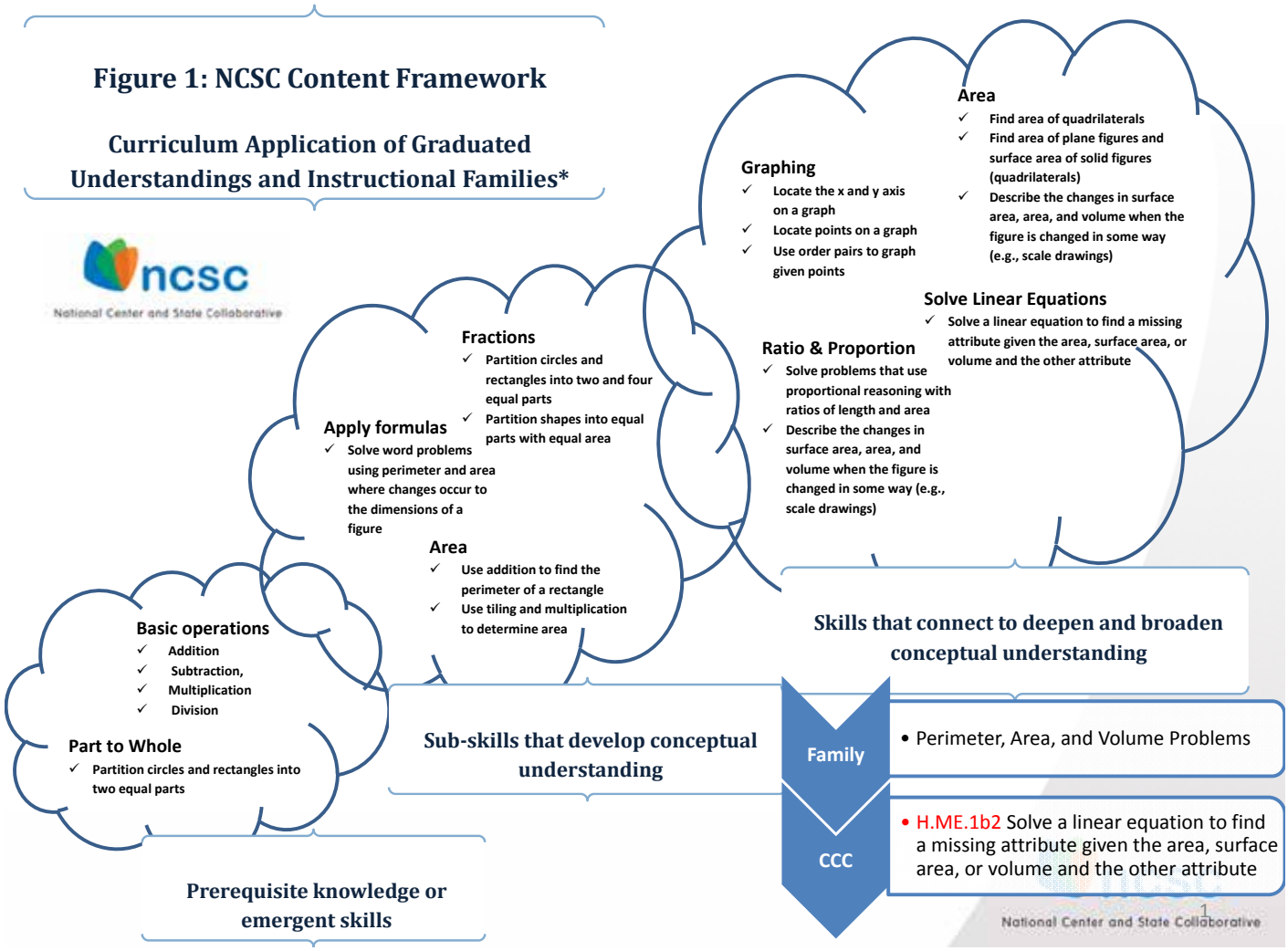
3. How can students with significant cognitive disabilities learn grade-level content while also building basic numeracy and literacy?

Educators – and families – have struggled with models that scaffold the learner to more challenging content of the enrolled grade level while still building basic numeracy and literacy. NCSC used the concept of "graduated understandings" to keep the focus on grade-aligned content, while educators and families support and scaffold learners. Graduated understandings show how to move a student in small, increasingly challenging steps from where they are starting toward critical grade-level academic concepts.

Graduated understandings are grouped into "instructional families," which show how content is interrelated within and across grades.[8] Additional easy-to-use resources called "element cards" support educators in delivering grade-level instruction. They focus on measurable, observable content from the grade-level standards and provide suggested instructional strategies and supports for students to learn the content with beginning "essential understandings,"[9] which include prerequisite knowledge and emergent skills.

Figure 1 illustrates how graduated understandings can be combined in a lesson to deepen and broaden understanding for a broad range of learners. Instructional families represent "bundles" of related academic grade-level content standards that have a common instructional basis. Hence, these bundles may be taught within a common instructional unit, with different learners entering the curriculum at different points in the graduated understanding from essential understanding all the way to grade-level achievement.

[8]https://wiki.ncscpartners.org/index.php/Instructional_Families
[9]https://wiki.ncscpartners.org/index.php/Element_Cards



In the Figure 1 example, all students would work on an academic content standard related to solving a linear equation to find a missing attribute, on the lower right side. Some students would begin with prerequisite knowledge or emergent skills, on the lower left side, while others would start at sub-skills or with broader skills that link to within-grade academic content standards in the same instructional family. All these students are working toward the same grade-level content, but at varying alternate achievement levels.

The interrelated NCSC content resources unpack the content standards. They are meant to support teachers who must plan lessons for students in multiple grades. For example, in a NCSC middle school example on data analysis, students use the real life activity of voting for a class president to address content standards from grade 6, 7, or 8 by finding the mean, analyzing a bar graph, and then selecting claims about bivariate data. The essential understanding is to identify the highest and lowest values, with concrete examples provided. From this starting point, in that same lesson, students move to each graduation of understanding about analyzing data, moving toward the grade-level objective. Actual examples and hands-on materials help to develop this understanding.[10]

*Adapted from representation created by Mariel L. Zeller, NCSC consultant, University of Kentucky.

[10]https://wiki.ncscpartners.org/index.php/Middle_Data_Analysis_MASSI

NCSC Content Model Term Definitions

Core Content Connectors are content bridges between the state content standards and learning progression pathways through the K-12 grade-level curriculum. The language of the content standard is in almost all cases retained to maintain a close grade-level connection. In some cases, complex content standards are broken into smaller segments to help pinpoint targets for instruction. See https://wiki.ncscpartners.org/index.php/Core_Content_Connectors

Graduated Understandings identify the areas of curricular emphasis within and across grades and the progression of learning within domains of the content standards, and are adaptable to most state content standards. They are comprised of Instructional Families and Element Cards. See https://wiki.ncscpartners.org/index.php/Graduated_Understandings

Instructional Families are a visual representation of the areas of curricular emphasis within and across grade bands. They support planning for within and across grade instruction of related content. See https://wiki.ncscpartners.org/index.php/Instructional_Families

Element Cards promote understanding of how students make progress in the general curriculum based on the enrolled grade-level content. They contain one or more Core Content Connectors from a specific instructional family, and a range of measurable and observable content targets that are challenging yet attainable, and provide suggested instructional strategies and supports for students so that they can demonstrate what they know. See https://wiki.ncscpartners.org/index.php/Element_Cards

Essential Understandings are included on each Element Card, and define entry skills based on a grade-specific Core Content Connector, on a range from prerequisite knowledge and emergent skills that build increasing understanding of the grade-level content. See Element Cards link for Essential Understandings https://wiki.ncscpartners.org/index.php/Element_Cards

4. How can an alternate assessment based on alternate achievement standards (AA-AAS) build on this content model?

NCSC designed its AA-AAS to capture student performance through two item design features: (a) levels of content complexity, and (b) degrees and types of scaffolds and supports that do not interfere with the content being assessed. Through these features, the NCSC assessment design is intentionally based on the same model of learning as the NCSC curriculum, instruction, and professional development resources.[11] Each content target in the NCSC assessment represents the critical curriculum and instruction content for progressing from grade to grade described above, from essential understanding to graduated and increased understanding. The items developed to address each content target include built-in supports that give students an opportunity to independently show what they know and can do, whether they are just beginning instruction on the content or have already made a lot of progress.

Summary

NCSC's path into the content was to define the graduated understandings of depth, breadth, or complexity of the grade-level content to define alternate achievement at multiple levels. NCSC developed resources to model how to "graduate a student's understanding" from wherever the student began, to move toward grade-level achievement. The AA-AAS shows how far the student has come along that path.

[11] See NCSC's *Age- and Grade-Appropriate Assessment of Student Learning* at http://www.ncscpartners.org/Media/Default/PDFs/Resources/NCSCBrief6.pdf

Frequently Asked Questions

How do I address other priority curricular needs my student has, like functional life skills and basic literacy and numeracy?

While every student in school has the right to receive the general curriculum, as required by federal law, children with disabilities may need specially designed instruction to augment this. These additional skill needs often can be addressed during naturally occurring routines (e.g., unzipping coat after arriving at school), concurrent with academic instruction (e.g., applying math concept to cooking lesson; applying an early numeracy skill like number identification to a grade-aligned activity like filling in an equation), or during some time devoted to a high priority IEP goal (e.g., beginning reading curriculum). What is important is not to hold students back from learning academics just because they are still catching up on some essential life skills. The two are not necessarily related. A student may be able to interpret graphs, for example, thus building a skill toward future employment, while still learning important skills like eating with utensils or following a schedule.

How do I get through the content when there is so much to teach at each grade level and my student's progress is slow?

Check to see whether your state offers some prioritization of standards for students working toward alternate achievement. The NCSC Curriculum Resource Guides[12] list some of the priorities the NCSC content experts recommended. Your state may have other priorities. General educators also often use pacing guides to help them get through the content. Special educators may adhere to the same or similar pacing guides. If students do not master skills in one unit (e.g., basic equations), they may in a new unit (e.g., interpreting graphs). The unlearned content can also be reviewed in the new activities, often as illustrated in within- and across-grade instructional families.

How will my students use this information? I can't imagine them needing skills like algebra.

We often have difficulty envisioning the future when the past is so clear. Most students have not had the opportunity to learn or apply this more challenging academic content in the past. As more students learn to access and comprehend text, develop written communication, explore content areas like science, and solve mathematical problems, they will be prepared for a wider array of life opportunities. The student who can manage text can use the Internet to locate information or read a book for pleasure. Mathematical learning opens opportunities in technology. In nearly all of today's jobs, employees use computers to read and manage text and data. The abilities of students with significant cognitive disabilities have historically been underestimated, and their post-school outcomes have been poor. Providing opportunities for students with significant disabilities to be more fully integrated into the academic content – and

[12] See https://wiki.ncscpartners.org/index.php/Curriculum_Resource_Guides

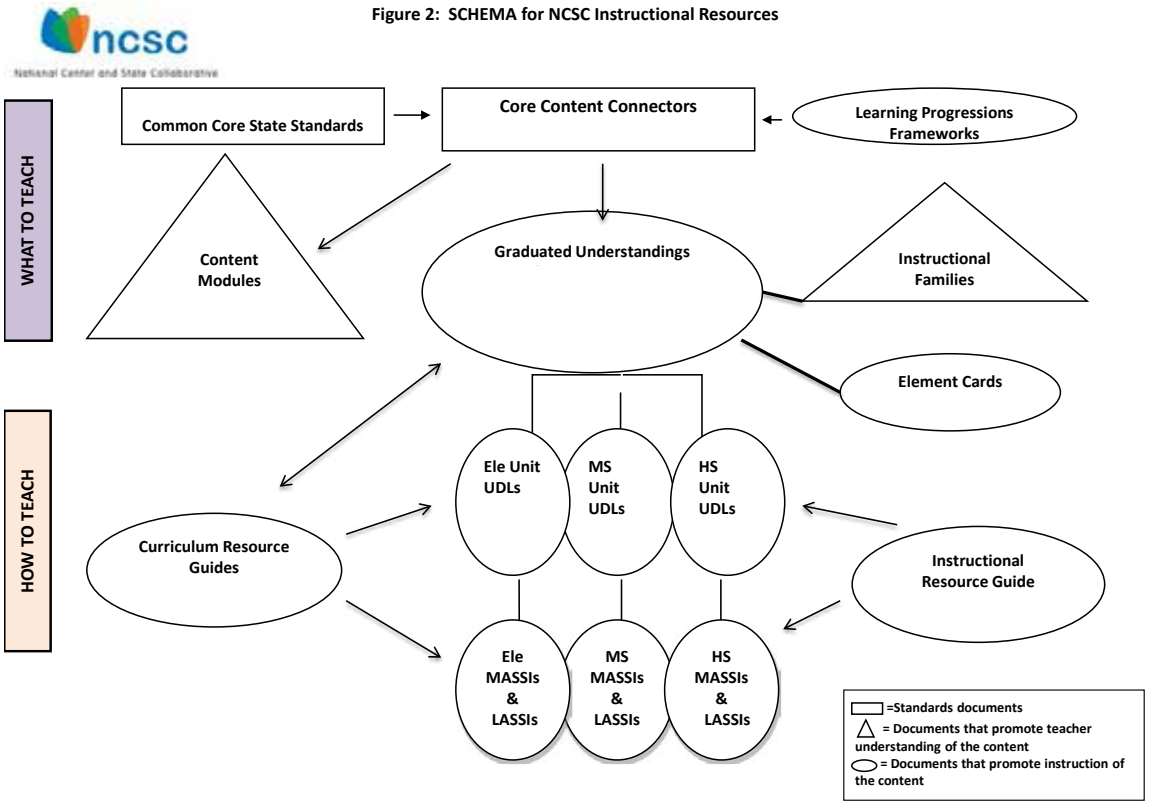
Frequently Asked Questions (continued)

context – of their enrolled-grade peers has the potential to improve those post-school outcomes.

What other resources are available in the NCSC Wiki for instructional planning?

The NCSC wiki has an online clickable Schema showing the content resources that are available in the NCSC wiki (see Figure 2). The top half of the Schema represents the resources described above; the bottom half links to resources for "How to Teach." The content resources discussed in this Brief focus on the top half of the Schema, on "What to Teach." Additional resources are provided to support curricular and instructional planning, or on "How to Teach." These "how" resources are described below, along with one content resource (Content Modules) that helps teachers bridge their understanding from "what" to "how."

Figure 2: SCHEMA for NCSC Instructional Resources



Content Modules: NCSC developed Content Modules for mathematics and ELA topics. Each module provides explanations and examples of the concepts that may be difficult to teach or unfamiliar to special education teachers and includes information and strategies that teachers and parents may find helpful. Each Content Module contains key vocabulary, a Universal Design for Learning (UDL) table with possible adaptations to address a variety of student needs, and ideas for linking academic activities to real-world uses and college and career ready skills. See https://wiki.ncscpartners.org/index.php/Content_Modules

Curriculum Resource (CR) Guides: CR Guides are available for a number of mathematics and ELA topics. Each one offers examples of how the content is taught in general education lessons (essential knowledge, common misunderstandings, prior knowledge/skills needed, and activities), ideas for real life use, tasks to measure performance, a UDL table, and ways to promote college and career readiness. There is some overlap between the types of information you will find in the Content Modules and the CR Guides. However, the Content Modules and the CR Guides cover different mathematics and ELA topics, with a few exceptions. See https://wiki.ncscpartners.org/index.php/Curriculum_Resource_Guides

UDL Instructional Units and Lessons: The UDL Instructional Units are based on general education lessons that are universally designed to be accessible for all students. They walk the educator through the process of adapting materials and providing accommodations that assist emerging readers and emerging communicators in the classroom. Each unit is made up of several lessons and a "culminating" activity that ties them together, all of which provide examples for meeting the needs of students with significant cognitive disabilities. There is one model mathematics unit and one model ELA unit for each grade span (elementary school, middle school, and high school). The strategies embedded in the lessons, and the resources and materials that accompany each lesson, are valuable tools for teacher and parents. See https://wiki.ncscpartners.org/index.php/UDL_Instructional_Units

Instructional Resource (IR) Guide: The NCSC IR Guide provides a discussion of various response modes to help identify the best way for each student to show what he or she knows in each lesson. The IR Guide also provides specific information about using evidence-based prompting and other instructional strategies that have been proven effective in teaching specific skills or concepts to students with significant cognitive disabilities. See https://wiki.ncscpartners.org/index.php/Instructional_Resource_Guide

Mathematics Activities with Scripted Systematic Instruction (MASSIs) and Language Arts Activities with Scripted Systematic Instruction (LASSIs): Systematic instruction has been proven effective for students with significant cognitive disabilities, although it may not be needed for every skill or every student. MASSIs and LASSIs provide teachers with scripts using carefully planned steps for targeting specific skills, data-capture tools for monitoring progress, print-ready resources, and classroom tools. The lessons can be individualized as long as the systematic instruction is delivered consistently. There are MASSIs and LASSIs for certain topics across elementary, middle, and high school. These activities can be used in any educational setting, including general education classes, after school or weekend education services, or tutoring. In addition, each MASSI and LASSI has printable materials to support teachers in conducting the model lessons. See https://wiki.ncscpartners.org/index.php/Systematic_Activities_for_Scripted_Systematic_Instruction

Presentations and interactive modules designed to supplement written NCSC materials: NCSC offers teachers tools to create lessons "from scratch" using their own ideas. The Element Cards provide teachable examples for building lessons as do the Curriculum Guides. Webinars are offered on how to write LASSIs and MASSIs. See Wiki homepage for links to these resources. https://wiki.ncscpartners.org/index.php/Main_Page

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This Brief reflects the work of the National Center and State Collaborative (NCSC). The authors of this report are Diane M. Browder, Claudia Flowers, Shawnee Wakeman, Angel Lee, Rachel F. Quenemoen, and Martha L. Thurlow.

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