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DYNAMIC® LEARNING MAPS

PROJECT BRIEF

Accessibility for Students who are Blind or Visually Impaired

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KEY POINTS

- Assessments and the underlying map structure are designed to allow students to show what they know across modalities.
- The assessment platform is customizable and incorporates accessibility features designed to support students who are blind or visually impaired.
- Braille and alternate forms are available for students who are blind or visually impaired.

CUSTOMIZATIONS AND ADMINISTRATION

Visual adjustments

- Magnification (2x, 3x, 4x, 5x)
- Invert colors
- Adjust contrast and select color scheme
- Change background colors

Other Supports

- Individualized manipulatives (tactile graphics or representations)
- Human or synthetic read aloud

Test administration

- Teacher-administered assessments and use of familiar texts
- Alternate forms for students who do not read braille and are blind or visually impaired
- Braille forms

Assistive Administration Devices

- Oversized monitors
- SmartBoard projection
- iPads
- Screen filters
- Screen magnifiers (separate from DLM system)

OVERVIEW

Dynamic Learning Maps® (DLM®) alternate assessments are designed to provide students with the most significant cognitive disabilities access to challenging grade-level academic content. Students in this population have varied and complex support needs and require flexible assessment design and administration. Students with significant cognitive disabilities who are also blind or visually impaired face unique challenges that impact their instruction and assessment needs. Around 5% of students who take DLM assessments have been identified as having low vision or cortical vision impairment, only perceiving light, or are legally or totally blind. The DLM Alternate Assessment System prioritizes students' access to challenging grade-level content and allows customizations to meet their needs. For students who are blind or visually impaired, customization includes accessibility supports, braille forms, and alternate test forms so students can show what they know and can do without barriers.

ASSESSMENT CONTENT

DLM assessments are designed to be accessible to all students with significant cognitive disabilities, including students who are blind or visually impaired. The basis of the assessment system is a fine-grained network of interrelated knowledge, skills, and understandings. The map was informed by researching skill and knowledge development, including for students who are blind or visually impaired. Map content was written to focus on cognitive skills and to allow students to demonstrate their knowledge using any modality. Students demonstrate what they know and can do in English language arts, mathematics, and science through **testlets**, using customizable computer interfaces, preferred devices, auditory alternatives, and/or physical manipulatives. Testlets are small groups of assessment items that share an engagement activity and a common context. If needed, teachers may also administer testlets with braille or alternate forms for students who are blind or visually impaired.

Testlets that measure learning targets specified in the underlying map structure are designed using principles of Universal Design for Learning and evidence-centered design. These principles promote design of assessments so all students, including students who are blind or visually impaired, can show what they know and can do. Essential Element Concept Maps serve as a guide for developers to use these principles in creating assessments.

INITIAL CONSULTATIONS

Prior to developing DLM assessments, project staff met with stakeholders who had expertise related to students with significant cognitive disabilities who also had blindness or visual impairments. Representatives from the National Center on Deaf-Blindness helped test developers understand what a fully accessible assessment should look like. Test developers observed teachers administer pilot assessments at the Kansas State School for the Blind to identify how the assessment could be adapted for students who are blind or visually impaired. New accessibility supports were generated from this collaboration to allow teachers to record student responses and substitute objects referenced in the testlets with those more appropriate for their students.

ASSESSMENT FORMS

STANDARD FORMS

- Standard forms are designed to be accessible to all students.
- Each form is accompanied by an information page that provides information specific to each group of assessment items and any other suggestions for how to adapt the assessment items for students who are blind or visually impaired.
- These information pages describe materials needed, allowable substitutes, and alternate-text descriptions of images or figures for test administrators delivering read aloud support.

BRAILLE FORMS

- Available for selected English language arts, mathematics, and science assessments at skill levels that require reading
- Intended only for students who are proficient braille readers and who use braille during instruction
- English Braille American Edition (EBAE) or Uncontracted Unified English Braille (UEB) for English language arts
- Nemeth code or Uncontracted Unified English Braille (UEB) for mathematics and science
- Delivered one at a time as the system assigns testlets
- Delivered as a Braille Ready File for the teacher to retrieve and emboss
- Contain page numbers, lettered response options, and double-spaced texts to help students with tracking
- Allow teachers to provide students with familiar tactile graphics or manipulatives

ALTERNATE FORMS

- Created for some testlets to provide access for students who are blind or visually impaired when standard forms with accessibility options or braille forms are still not sufficient
- Available when specific academic content in standard forms is not accessible for students who are blind or visually impaired

ACCESSIBILITY REVIEW PANELS

External reviews of testlet accessibility are conducted each year. Before new testlets are field tested, test developers work with panels of teachers to review all new assessment content for potential accessibility challenges. Panelists identify language that may present an accessibility barrier to students. When panelists identify a barrier specific to students who are blind or visually impaired, they may recommend making an adaptation or revision to the testlet. For example, a testlet that measures student recognition of a familiar text may have a parallel form that directs students to select the cover of a familiar text by using a printed copy of the text with an appropriate tactile marker the student has already used. In mathematics, this may include tactile images or graphs to allow students to access the content.

TEACHER FEEDBACK

Each year, surveys are made available to test administrators to collect feedback on DLM assessments. One section specifically collects feedback on accessibility. Teachers are also invited to share any additional feedback they have, which is used to inform subsequent test development and administration efforts. This can include feedback specific to students who are blind or visually impaired. DLM teams also conduct focus groups to continue collaboration with teachers to identify and close ongoing accessibility gaps for all students.

SYSTEM DESIGN

The assessment system itself is also designed to be accessible to all students, including students who are blind or visually impaired. Test administrators enter students' personal access needs using the student's IEP as a guide. This Personal Needs and Preferences Profile includes information about visual adjustments (magnification, invert colors, etc.), braille or alternate form needs, and audio or environmental supports. The interface features a large font and simplified visual navigation. To support students with more extensive visual impairments or students who are blind, the system uses the selections in the Personal Needs and Preferences Profile to determine when to assign a braille or alternate form.

These supports are intended to facilitate the student's independent responses to the assessment. The accessibility supports selected by the test administrator should be **familiar to the student and used during their regular instruction** so that the supports assist, rather than hinder, the student during assessment. Practice testlets are also available, so the student and test administrator can preview visual adjustments or audio supports in the interface.

ACCESSIBILITY RESOURCES

Dynamic Learning Maps Accessibility Manual 2023-2024

Dynamic Learning Maps Educator Portal User Guide 2022-2023

Universal Design for Learning - Dynamic Learning Maps Professional Development Modules

Dynamic Learning Maps Educator Resource Videos - Personal Needs and Preferences Profile and Testlet Information Pages

American Printing House for the Blind

American Foundation for the Blind

National Center on Deaf-Blindness

Perkins Scout - Searchable database of carefully evaluated online resources