



NCEO Report 447

The Development of Common Terminology (Updated Edition): Adding Accessibility Features to the Common Education Data Standards (CEDS)

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Table of Contents

Introduction	1
Process	
Summary	
References	
Appendix A: Final List of Common Definitions	
Appendix B: A Summary of Changes Made in CEDS	20

Introduction

This report is an update of *The Development of Common Terminology: Adding Accessibility Features to the Common Education Data Standards (CEDS)* published in March, 2025 (Peterson et al., 2025). After the report was published it was reviewed by the American Printing House for the Blind (APH) and the Braille Authority of North America (BANA). They jointly submitted recommended changes to the definitions to the Common Education Data Standards (CEDS). The changes were accepted by CEDS. Appendix A has been updated to reflect the changes. A summary of changes are in Appendix B.

There is a wide array of accessibility features (e.g., universal features, designated supports, accommodations) which enable students who need them to better access assessments. Historically, however, there has been wide variation in the language used to describe these supports. For example, the accessibility policies of different states use different terms for the same support. Similarly, different test vendors use different terms to describe the same support, which can lead to confusion when the policies of different tests within a single state refer to the same accessibility feature by different names (NCEO, n.d.; Shyyan et al., 2016; Warren et al., 2016).

To address this issue, the National Center on Educational Outcomes (NCEO) collaborated with the CEDS initiative to bring together stakeholders representing state education agencies (SEAs), test vendors, and assessment consortia to develop common accessibility feature terms and definitions. The purpose of this activity was to establish standardized accessibility terminology and data elements within CEDS that enable clear communication between education stakeholders and ensure equitable assessment opportunities for all students, particularly students with disabilities, English learners, and English learners with disabilities. Once the stakeholders agreed on the definitions, the proposed definitions were submitted to the CEDS initiative for possible inclusion in their data elements. CEDS was developed by the U.S. Department of Education's National Center for Education Statistics (NCES) to establish a standardized vocabulary and data models for education data elements.

Process

To address the need for standardized terminology for accessibility features, NCEO assembled a group of stakeholders who were knowledgeable of accessibility features and policies. The stakeholder group was comprised of 21 SEA staff, six test vendor personnel, and five assessment consortia representatives. The group met in Phoenix, Arizona on February 15–16, 2024.

In preparation for the stakeholder meeting, a workgroup comprised of NCEO and CEDS staff conducted a comprehensive landscape analysis to assess the vocabulary currently used for accessibility features across state policies, test vendors, and assessment consortia. To conduct the analysis, the group searched and compiled publicly available statewide assessment accessibility manuals from the websites of all 50 SEAs, as well as those from test vendors and assessment consortia. The group then listed, sorted, and compared the terms and definitions used for accessibility features in all discovered manuals. As anticipated, the team found that different terms and definitions were used by different SEAs, vendors, and consortia. By creating crosswalks and mapping out similarities and differences, the workgroup was able to identify where there was commonality in terminology and where there were differences.

Building on the insights gained from the landscape analysis of accessibility features and policies, the NCEO/CEDS workgroup began the process of creating a draft list of accessibility features and definitions. The workgroup members thoroughly reviewed and discussed the terms collected from state policies, vendor and consortia documentation, and existing standards. Each term was examined for clarity, consistency, and relevance. During the review, the workgroup engaged in in-depth discussions to evaluate each term's definition and application in order to ensure that terms aligned with current practices and stakeholder needs. Special attention was given to terms that were inconsistently defined or lacked detail in existing vocabularies. The workgroup then assembled a preliminary list of accessibility features along with detailed definitions.

Detailed briefing materials were distributed in advance of the in-person meeting, including summaries of the landscape analysis, crosswalks of existing terms, and the draft accessibility vocabulary and definitions. These materials allowed participants to familiarize themselves with the project's progress and come prepared with questions and feedback.

The first day of the in-person stakeholder meeting began with a presentation that provided an overview of the project, the objectives, and the CEDS data model. After familiarizing the stakeholders with the project and the plan for the meeting, the NCEO/CEDS workgroup members divided the stakeholders into small groups to work through sets of accessibility features terms and definitions. Each small group was assigned a different set of accessibility features to start with in order to ensure that all accessibility features were reviewed by at least one group. During the small group discussions, stakeholders worked together to come to consensus on the proper terminology and definition for each accessibility feature assigned to the group. Groups used a Google form to track their proposed changes to the draft terms and definitions that were provided prior to the meeting and noted any accessibility features for which they could not reach consensus or that they wanted to bring to the larger group for discussion. Following the small group discussions, stakeholders reconvened as a large group to share out what their group had accomplished and discuss any challenges that they encountered.

On the second day of the meeting, the NCEO/CEDS workgroup members shared with the stake-holders an updated CEDS data model based on the work from the previous day. Stakeholders then had another chance to discuss any challenges, questions, or concerns about the data model or about the process in general. The meeting concluded with a discussion of next steps, including initial plans for additional virtual meetings to finish discussing the accessibility features that were particularly challenging and to finalize the list of terms and definitions.

Following the in-person stakeholder meeting, the NCEO/CEDS workgroup focused on refining the accessibility features terminology based on the feedback received. The team began by documenting key insights and suggestions, including recommendations for vocabulary adjustments, requests for additional terms, and specific concerns raised by SEAs, vendors, and consortia. Using this input, the workgroup created an updated version of the vocabulary list.

To ensure the revised list met stakeholder expectations, the workgroup held two additional virtual meetings on May 7 and June 18, 2024. During these sessions, the team presented changes made based on prior feedback and facilitated discussions on remaining elements. This allowed stakeholders to review and confirm updates incrementally, providing focused feedback as the vocabulary evolved toward completion. Stakeholders also had the opportunity to make comments and suggest changes using a cloud-based document. Consensus on the terminology was reached across the participating stakeholders by the end of the June meeting.

Once the list of accessibility features was finalized (see Appendix A for final list and definitions), it was formally submitted to CEDS. In addition to the list, comprehensive documentation was included, detailing the development process, the stakeholder feedback gathered, and the iterative revisions that shaped the final vocabulary. CEDS then posted the common accessibility feature definitions for community review for public feedback from October 6, 2024 to January 5, 2025. CEDS did not receive any public feedback from the community review. The common accessibility feature definitions were approved January 6, 2025 and adopted as part of the CEDS standard. After this report was initially published in March 2025, recommendations for updated definitions were submitted to CEDS by APH and BANA. These recommendations were accepted and are summarized in an updated Appendix B. Appendix A has also been updated to reflect the changes, which are indicated by bold text.

Summary=

NCEO facilitated a process that brought together stakeholders representing SEAs, test vendors, and assessment consortia to develop a set of common terms and definitions of accessibility features. The stakeholders discussed the issues and considerations and made recommendations prior to reaching consensus. The agreed upon terms and definitions were then submitted to CEDS.

CEDS accepted the submission, public feedback was sought, and the common accessibility feature definitions were approved and adopted. The definitions were updated in July 2025 and the changes are summarized in Appendix B. Appendix A has been updated to reflect the changes.

References

National Center on Educational Outcomes. (n.d.) *Accommodations toolkit*. https://publications.ici.umn.edu/nceo/accommodations-toolkit/introduction

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Appendix A

Final List of Common Definitions

This updated appendix contains the final list of common accessibility feature definitions that were entered into the CEDS system. It is organized by:

- 1. Accessibility Feature Type Element—The primary element which relates to all other elements in the accessibility feature model.
- 2. Accessibility Feature Extended Elements—These elements further describe the Accessibility Feature Type option selected (e.g., The Accessibility Feature Type option of "Breaks" can be further described through the element "Assessment Break Type" which indicates whether the break is scheduled, unscheduled, or medical).
- 3. Accessibility Feature Data Model Elements—These elements further describe information about the Accessibility Feature Type itself and can apply to any Accessibility Feature Type option. (For example, how one Accessibility Feature may relate to another, the category of Accessibility Feature Types such as Universal, Designated, Accommodation, or Administrative Consideration, or the language in which the Accessibility Feature Type is delivered.)

Table A-1: Accessibility Features and Definitions

Accessibility Feature	Definition	Feature Code	Extended Ele- ment
Adaptive and Specialized Equipment or Furniture	Furniture or equipment used to address physical or sensory needs.	1000	See Table A2
Adaptive Calculator	A specialized calculator designed to accommodate users with diverse needs, such as visual impairments or motor difficulties, by customizing its interface and functionality to enhance accessibility and usability.	1001	See Table A2
Alternate Response Option	An alternate method for providing a response.	1002	See Table A2
Alternative Text	Scripted statements describing graphics and images (e.g., tables, charts, graphs, timelines, photos, and illustrations).	1003	NA

Accessibility Feature	Definition	Feature Code	Extended Ele- ment
Amplificationa	The ability to adjust the volume control beyond standard volume using other non-embedded devices including, but not limited to, assistive technology, personal hearing aids, or FM systems.	1004	NA
Assessment Countdown Timer	A timer which shows the time allowed for the assessment and counts down when the administration starts.	1014	NA
Assessment Extended Time	Additional time to complete an assessment beyond the standard time allotment.	1017	See Table A2
Assessment Multiple Days	Assessment activities are completed over multiple days without extending the time available to complete the assessment.	1024	NA
Assessment Refocus	Redirecting the individual's focus during the assessment ensuring that such redirections do not suggest revisiting a prior item or imply potential errors.	1029	NA
Assessment Time of Day	Altering the schedule for administering assessments to the time of day optimal for the individual's needs.	1041	NA
Auditory Calming	The use of auditory stimuli to promote relaxation and reduce stress or anxiety.	1005	NA
Bilingual Dictionary	A comprehensive dictionary containing definitions and contextual information in two languages that may contain construct-relevant terms.	1006	NA
Bilingual Glossary	A collection of grade and context appropriate definitions of specific constructive irrelevant terms provided in two languages.	1043	NA
Braille	Braille code is a tactile system of raised dots that enables a person to read through touch.	1009	See Table A2
Breaks	A pause allowing the individual to temporarily suspend activities.	1010	See Table A2
Calculator	An electronic device or software that performs mathematical calculations.	1011	See Table A2
Closed Captioning	Text-based transcriptions of dialogue, sounds, and relevant audio cues that are synchronized with a video or audio content.	1012	NA
Display Format Adjustment	Content is presented in a streamlined, stacked, or simplified format.	1036	NA
English Dictionary	A comprehensive dictionary containing definitions and contextual information in English that may contain construct-relevant terms.	1015	NA
English Glossary	A collection of grade and context appropriate definitions of specific constructive irrelevant terms in English.	1016	NA

Accessibility Feature	Definition	Feature Code	Extended Ele- ment
Group Size	An adjustment to the number of individuals in the setting.	1026	See Table A2
Highlighter	A tool for marking desired text.	1018	NA
Illustration Glossaries	A collection of key terms, concepts, or subjects accompanied by illustrative visuals, such as images, diagrams, or graphics. It is designed to enhance understanding and learning by combining written definitions with visual representations, making complex or abstract ideas more accessible and engaging.	1019	NA
Large Print Paper Assessment Booklet	A larger size version of a paper- based assessment that increases the font size, illustrations, and other test elements.	1020	NA
Line Guide	A tool used to emphasize a line of text.	1021	NA
Masking	'		NA
Medical Supports	Support for a person with a medical condition.	1023	See Table A2
Noise Canceling	Equipment used to block external sounds and reduce distractions.	1025	NA
Read Aloud	Text is read aloud to the individual.	1027	See Table A2
Read Aloud to Self	The individual may read content aloud to themselves, with or without a device.	1028	NA
Reference Sheet A structured document specifically designed for providing reference material such as multiplication tables, periodic tables, etc.		1013	See Table A2
Repeat Test Directions	The individual being assessed may request that the test administrator repeat test directions prior to beginning the actual test items.	1030	NA
Screen Reader A technology tool that describes what is being displayed on the screen (e.g., text, images), converting the content into audio or braille output.		1031	NA
Setting	An adjustment in the environment based on individual needs.	1032	See Table A2
Signed Administration	Content is presented via a form of sign language.	1033	See Table A2
Simplified Test Directions	Test directions, provided prior to beginning the test, are simplified or clarified.	1034	NA
Specific Test Administrator	A designated test administrator.	1035	NA
Strikethrough	A tool to visually mark or cancel out text.	1037	NA

Accessibility Feature	Definition	Feature Code	Extended Ele- ment
Tactile Graphics	Tactile graphics convey non-textual information through touch. These may include tactile representations of pictures, maps, graphs, diagrams and other images.	1038	See Table A2
Tactile Symbols	A static communication form that conveys concepts through touch, encompassing tactile objects, symbols, or manipulatives used to support assessment or instructional content.	1039	NA
Thesaurus	A thesaurus contains synonyms of words.	1040	NA
Translation	Converting text or speech from one language into another.	1042	See Table A2
Turn Off Any Universal Tools	Deactivating one or more universal tools the individual does not require, is unable to use, or could potentially cause distraction.	1044	NA
Unlimited Replays	The individual is allowed to replay multimedia components an unlimited number of times.	1045	NA
Unlimited Rerecording	The individual is allowed to re-record responses an unlimited number of times.	1046	NA
Word to Word Bilingual Dictionary	A comprehensive collection of individual words or short phrases translated in two languages that may contain construct-relevant terms.	1007	NA
Word to Word Bilingual Glossary	A collection of construct-irrelevant individual words or short phrases translated in two languages.	1008	NA
Other	The type of design elements or functional- ities integrated into products, services, or environments to ensure equitable access for all individuals, aiming to eliminate barriers and facilitate ease of use is an option not yet defined in CEDS.	9999	NA

Table A-2. Extended Elements

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Adaptive and Specialized Equipment or Furniture		The description of the furniture or equipment used to address students' physical or sensory needs.	NA	NA

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Adaptive Calculator		Braille-	Braille is the spe- cific type of adaptive calculator used.	
			Large Key	Large key is the specific type of adaptive calculator used.
			Talking	Talking is the specific type of adaptive calculator used.
Alternate Response Option	Alternate Response Option Type	The type of alternative method for inputting a response.	Adapted Keyboard	Adapted keyboard is the type of alternative method for inputting a response.
			Adapted Mouse	Adapted mouse is the type of alternative method for inputting a response.
			Filter Keys	Filter keys is the type of alternative method for inputting a response.
			Head Wand	Head wand is the type of alternative method for inputting a response.
			Large Keyboard	Large keyboard is the type of alternative method for inputting a response.
			Mouse Keys	Mouse keys is the type of alternative method for inputting a response.
			Sticky Keys	Sticky keys is the type of alternative method for inputting a response.
			Switches	Switches is the type of alternative method for inputting a response.
			Touch Screen	Touch screen is the type of alternative method for inputting a response.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Assessment Extended Time	Assessment Ex- tended Time Duration	Additional time, recorded in minutes, to complete an assessment beyond the standard duration.	NA	NA
	Assessment Extended Time Type	The type of additional time provided to complete an assessment beyond the standard duration.	Double Time	The additional time provided to complete an assessment beyond the standard duration is double time.
			Time and a Half	The additional time provided to complete an assessment beyond the standard duration is time and a half.
			Time and One Quarter	The additional time provided to complete an assessment beyond the standard duration is time and one quarter.
Braille	Braille Application Type	The manner in which braille is applied.	Print-	The individual is provided with tools or resources for printing braille.
			Emboss	The individual is provided with tools or resources for embossing braille.
			Read	The individual is provided with tools or resources for reading braille.
			Write	The individual is provided with tools or resources for writing braille.
	Braille Access Type	The manner in which braille is accessed.	Braille Notetaker	The manner in which braille is accessed is braille notetaker.
			Braille Writer	The manner in which braille is accessed is braille writer.
			Embossed Braille	The manner in which braille is accessed is embossed braille.
			Refreshable Braille	The manner in which braille is accessed is refreshable braille.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
	Braille Code Type	The type of braille code.	English- Braille- American- Edition- (EBAE)	A set of rules and guidelines developed by the Braille Authority of North America (BANA) for the use of braille in the United States.
			Unified English Braille (UEB)	A standardized system of braille developed to harmonize and streamline braille codes used in English-speaking countries around the world.
			UEB with Nemeth	A specialized braille code that uses Unified English Braille (UEB) for literary content and incorporates the Nemeth Code for representing mathematical and scientific notation, providing a structured system for transcribing technical content into braille to ensure effective access for individuals with visual impairments.
			UEB Math/ Science	A portion of Unified English Braille (UEB) used to represent mathematical and scientific notation, providing a structured system for transcribing symbols, expressions, and technical content into braille to ensure effective access for individuals with visual impairments.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
	Braille Version Type	A tactile system used by people with visual impairments, employing patterns of raised dots to represent letters, numbers, and symbols that can be read by touch.	Contracted	A system of braille that includes contractions or abbreviations for common letter combinations, words, and prefixes, making it more efficient for reading and writing.
			Uncontracted	A system of braille that represents each letter of the alphabet and each punctuation mark separately, without any contrac- tions.
Breaks	Break Type	The type of designated pause allowing students to temporarily suspend activities.	Medical Breaks	The designated pause allowing students to temporarily suspend activities is a medical break.
			Scheduled Breaks	The designated pause allowing students to temporarily suspend activities is a scheduled break.
			Unscheduled Breaks	The designated pause allowing students to temporarily suspend activities is an unscheduled break.
	Break Duration	The duration of the pause allowing students to temporarily suspend activities.	NA	NA
	Break Location Type	The location where the student is allowed to temporarily suspend activities.	In Chair	The location where the student is allowed to temporarily suspend activities is in their chair.
			In Testing Environment	The location where the student is allowed to temporarily suspend activities is in the testing environment.
			Outside Testing Environment	The location where the student is allowed to temporarily suspend activities is outside the testing environment.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Calculator	Calculator Type	tor used.	Five Func- tion (Add, Subtract, Multiply, Divide, Square Root)	The specific type of calculator used is a five-function calculator with the ability to add, subtract, multiply, divide, and calculate the square root.
			Four Function (Add, Subtract, Multiply, Divide)	The specific type of calculator used is a four-function calculator with the ability to add, subtract, multiply and divide.
			Graphing	The specific type of calculator used is a graphing calculator.
			Scientific	The specific type of calculator used is a scientific calculator.
Group Size	the number of students in	the number of students in	Individual	The student will be in an individual setting.
		the setting.	Small Group	The student will be in a small group setting.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Medical Support I	Medical Support Type	The type of support for a person with a medical condition.	Drink	Drink is the type of support for a person with a medical condition.
			Food	Food is the type of support for a person with a medical condition.
			Medical Device	A medical device is the type of support for a person with a medical condition.
			Medical Equipment	Medical equipment is the type of support for a person with a medical condition.
			Medication	Medication is the type of support for a person with a medical condition.
			Mobile Device/ Application	A mobile device/ application is the type of support for a person with a medical condition.
			Service Animal	A service animal is the type of support for a person with a medical condition.
Read Aloud	Read Aloud Type	The method in which the text is read aloud to the student.	Human Reader	Text is read aloud to the student by a trained and qualified human reader.
			Recorded	Text that has been prerecorded by a trained and qualified human reader is delivered audibly through some type of audio device.
			Text-to- Speech	Text is read aloud to the student via embedded computergenerated speech.

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Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Reference Sheet	Reference Sheet Type	The type of structured document specifically designed for providing reference materials.	100s Table	A table listing numbers from 1 – 100.
			Computation Table	A structured representation used to organize and compute values based on specific rules or algorithms.
			Graphic Organizer	A visual tool used to organize and represent information, concepts, or ideas in a structured format.
			Multiplication Table	A grid that displays the products of multiplying numbers within a specified range.
			Periodic Table	A tabular arrangement of chemical elements organized by their atomic number, electron configuration, and chemical proper- ties.
Setting	Setting Type	The type of adjustment in the testing environment based on individual needs.	Acoustics	Acoustics is the type of adjustment in the testing environment based on individual needs.
			Climate	Climate is the type of adjustment in the testing environment based on individual needs.
			Lighting	Lighting is the type of adjustment in the testing environment based on individual needs.
			Seating	Seating is the type of adjustment in the testing environment based on individual needs.
			Separate Setting/ Alternate Location	Separate setting/ alternate location is the type of adjust- ment in the testing environment based on individual needs.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Signed Administration	Assessment Need Signing Type	Text-based transcriptions of spoken dialogue, sounds, and relevant audio cues that are synchronized with a video or audio content.	American Sign Lan- guage	The type of text-based transcriptions of spoken dialogue, sounds, and relevant audio cues that are synchronized with a video or audio content is American Sign Language.
			Cued Speech	The type of text-based transcriptions of spoken dialogue, sounds, and relevant audio cues that are synchronized with a video or audio content is cued speech.
			Signed Exact English	The type of text-based transcriptions of spoken dialogue, sounds, and relevant audio cues that are synchronized with a video or audio content is Signed Exact English.
	Signed Administra- tion Delivery Method	The method in which the signed administration will be delivered to the student.	American Sign Language	American Sign Language is the type of sign language in which content is presented.
			Cued Speech	Cued Speech is the type of sign language in which content is presented.
			Signed Exact English	Signed Exact English is the type of sign language in which content is presented.

Accessibility Feature	Extended Element Name	Extended Element Definition	Option Name	Option Definition
Tactile Graphics	Tactile Medium Type	The tactile or textured medium used to convey visual information through touch.	Actual Object	A real-world item used in its original form to convey information through touch.
			Manipula- tive	A tactile resource designed to allow the person to physically engage with and explore abstract concepts.
			Paper	Paper is the tactile or textured medium used to convey visual information through touch.
			Thermoform	Thermoform is the tactile or textured medium used to convey visual information through touch.
Translation	Translation Presentation Type	The presentation type for the translated language.	Dual Language Translation	The presentation type for the translated language is dual language translation which provides the original language and the translation.
			Translated Version Only	The presentation type for the translated language is the translated version only.

Table A-3. Accessibility Feature Data Model Elements

Data Model Element	Element Definition	Option Name	Option Definition
Accessibility Feature Application Type	An indication of how this accessibility feature can be applied.	Accommodation	An accessibility feature provided only to individuals with disabilities and English learners for content assessments, and only for English learners with disabilities for English language proficiency assessments.
		Administrative Consideration	An accessibility feature provided to address unique circumstances or logistical needs during testing, such as environmental adjustments or timing flexibility, which may be provided at the discretion of administrators or educators, except when required by a person's individualized program.
		Designated Feature Universal Feature	An accessibility feature that is provided to individuals based on individual educational needs identified by an authorized adult or team of adults and intended to ensure equitable access to the assessment.
		Oniversal Feature	An accessibility feature that is provided to all individuals.
Accessibility Feature Delivery Method	The distinct methods or formats through which accessibility features, such as resources or tools, are provided to a person based on their preferences, requirements, or needs.	Handheld	The device is an accessibility feature that can be held in the person's hand and can function without any other resource attached to it.
		On Screen	The accessibility feature is a document or software that is manipulated and/or viewed on a computer or tablet screen.
		Printed	The accessibility feature is a paper copy that is provided to the person.
Accessibility Feature Embed- ded Indicator	An indication of whether this accessibility feature is embedded in the assessment.	Embedded	The accessibility feature is embedded in the assessment.
		Non-embedded	The accessibility feature is not embedded in the assessment.
Accessibility Feature Language Type	The language the accessibility feature will be delivered in.	NA	NA
Accessibility Feature Pauses the Clock Indicator	An indication of whether the accessibility feature stops	Yes	The accessibility feature stops the predetermined amount of time for the assessment.
	the predetermined amount of time for the assessment.	No	The accessibility feature does not stop the predetermined amount of time for the assessment.

NCEO NCEO

Data Model Element	Element Definition	Option Name	Option Definition
Assessment Component Type	The various components of text that make up the whole of an assessment.	All Assessment Components	All components that make up the whole of an assessment.
		Assessment Item Body Text	The complete text of an assessment item including all applicable parts such as stimulus, stem, and possible response options presented.
		Assessment Item Possible Re- sponse Options	The possible responses presented to the participant within a selected response/multiple choice assessment item.
		Assessment Item Stem	The statement of the question or prompt for an assessment item to which the student responds.
		Assessment Item Stimulus	The text, source (e.g., video clip), and/ or graphic about which the assessment item is written. The stimulus provides the context of the item/task to which the student must respond.
		Test Directions	Instructions provided to participants prior to the beginning of the test.
Accessibility Feature Relation-	The type of relation- ship between two accessibility fea- tures.	Complementary	Two features that work together to enhance accessibility.
ship Type		Dependent	One accessibility feature relies on another accessibility feature for full functionality.
		Enhancing	One accessibility feature improves or amplifies the effects of the other accessibility feature.
		Interdependent	Both accessibility features rely on each other for full functionality.
		Supporting	One accessibility feature aids or assists the functionality of the other accessibility feature.
Accessibility Feature Category	The category of features implemented to enhance accessibility.	Presentation	Presentation is the category of features implemented to enhance accessibility.
		Response	Response is the category of features implemented to enhance accessibility.
		Setting	Setting is the category of features implemented to enhance accessibility.
		Timing	Timing is the category of features implemented to enhance accessibility.

Appendix B

A Summary of Changes Made in CEDS

After the common definitions were submitted to CEDS, the American Printing House for the Blind (APH) and the Braille Authority of North America (BANA) reviewed and recommended changes. The following changes were submitted to and accepted by CEDS.

- 1. Accessibility Feature Definition change: The definition of Tactile Symbols was changed to, A static communication form that conveys concepts through touch, encompassing tactile objects, symbols, or manipulatives used to support assessment or instructional content to include manipulatives in the definition.
- 2. Accessibility Feature Option removed: The Braille option for the Adaptive Calculator accessibility feature was removed since there is not a specific braille calculator.
- 3. Accessibility Feature Option replaced: The Print option was removed from the Braille Application Type extended element of the Braille accessibility feature and replaced with Emboss. Braille is not printed but rather embossed. The new Emboss option definition is, *The individual is provided with tools or resources to emboss braille.*
- 4. Accessibility Feature Option added: Embossed Braille was added as an option to the Braille Access Type extended element of the Braille accessibility feature.
- 5. Accessibility Feature Options changed: The options in the Braille Code Type extended element of the Braille accessibility feature were changed.
 - a. English Braille American Edition (EBAE) was removed as an option. UEB is the official code for use in the U.S., and EBAE has been phased out.
 - b. Nemeth was changed to UEB with Nemeth. The new option definition is, A specialized braille code that uses Unified English Braille (UEB) for literary content and incorporates the Nemeth Code for representing mathematical and scientific notation, providing a structured system for transcribing technical content into braille to ensure effective access for individuals with visual impairments.
 - c. A new option for Braille Code Type was added. The new option is UEB Math/Science. The definition for the UEB Math/Science option is, *A portion of Unified English Braille (UEB) used to represent mathematical and scientific notation, providing a structured system for transcribing symbols, expressions, and technical content into braille to ensure effective access for individuals with visual impairments.*

- 6. Accessibility Feature Options added: Two new options for the Tactile Medium Type extended element of the Tactile Graphics accessibility feature were added.
 - a. Actual Object was added as a new option. The definition for Actual Object is, *A real-world item used in its original form to convey information through touch*.
 - b. Manipulative was added as a new option. The definition for Manipulative is, *A tactile resource designed to allow the person to physically engage with and explore abstract concepts*.

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