

# **Technical Report on the Development of the Virginia Essentialized Standards of Learning (VESOL)**

June 2023

Virginia Department of Education  
Behavioral Research and Teaching – University of Oregon

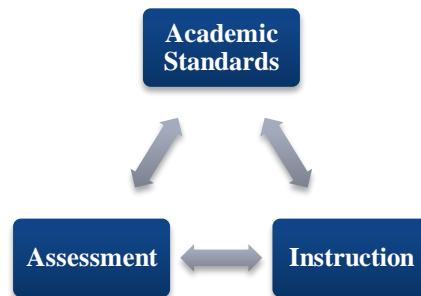
## **Acknowledgements**

Creating challenging alternate academic content standards in Reading, Mathematics, and Science that are linked to grade-level academic content and accessible, appropriate, and relevant for Virginia students experiencing significant cognitive disabilities could not have been accomplished without the expertise and collaboration of many individuals. The Virginia Department of Education, Virginia educators, and Behavioral Research and Teaching (BRT) staff collaborated to create the Virginia Essentialized Standards of Learning (VESOL). The dedication and careful attention to detail of these stakeholders were operationalized in the standards development process described in this technical report, a key prerequisite for rigorous academic instruction and assessment for students with significant cognitive disabilities across the Commonwealth of Virginia.

## Abstract and Report Organization

This technical report, a collaboration of the Virginia Department of Education (VDOE) and Behavioral Research and Teaching (BRT) at the University of Oregon (UO), documents processes and outcomes of developing new alternate academic content standards in Reading, Mathematics, and Science called the Virginia Essentialized Standards of Learning (VESOL). VESOL, publicly released in academic year 2021-22, are linked to the Virginia Standards of Learning (SOL) and provide a basis for standards-

based instruction and statewide alternate assessment testing for students with significant cognitive disabilities in public schools across Virginia as shown in the diagram at right.



In this report we define and operationalize a process called *essentialization*, whereby general academic content standards in Reading, Mathematics, and Science serve as the foundation for creating alternate standards — simple declarative statements that indicate what students with significant cognitive disabilities (SWSCD) should be able to know and do by the end of each grade. Essentializing the SOL to create the VESOL was the first step in the development and validation of a new alternate assessment system based on alternate academic achievement standards (AA-AAAS), called the Virginia Alternate Assessment Program (VAAP), that is designed to measure the academic performance of SWSCD. Without this initial step, SOL would simply not be accessible nor appropriate/relevant for the SWSCD in Virginia, and as a result, the VAAP based on SOL would not meet the federal academic mandate. The report is divided into five sections.

The first section, **Standards Essentialization Preparation**, describes a calendar of dates

and deliverables and the training of VDOE in the essentialization process by BRT.

The second section, **The Essentialization Process and Outcomes**, describes the essentialization of SOL — completed by content area, special- and general-education, and test development experts at VDOE and BRT. Existing SOL were selected based on their appropriateness and relevance to the SWSCD population in Virginia, and then reduced in depth, breadth, and complexity to create the VESOL. Training and support materials were provided by BRT to VDOE during initial VESOL development, with the results summarized and reviewed by both organizations.

The third section, **Special Education (SPED) Teacher Review and Validation Study: Recruitment, Training, and Review Outcomes**, provides a description of recruitment and training of Virginia special educators to review draft VESOL. Details regarding the following training processes are provided: (a) review and validate the linkage of VESOL to SOL, (b) rate the accessibility and appropriateness/relevance of the VESOL for SWSCD, and (c) make revision recommendations for any VESOL they deemed unsuitable. Outcomes from special educator judgments are reported, including two successive rounds of independent review, a third round of collaborative “in-person” (Zoom) resolution, and a survey that evaluated the training and VESOL review process. Virginia special educators, all of whom work with SWSCD, provided a critical lens through which VESOL are viewed and implemented — challenging, pedagogically sound, standards-based instruction and assessment.

The fourth section, **General Education Linkage Review and Validation Study: Recruitment, Training, and Review Outcomes**, provides a description and the results of a review of VESOL by VDOE general education instructional coordinators. Coordinators provided content area expertise, helping further validate linkage of VESOL to SOL and ensure VESOL

are consistent with current knowledge and instruction in reading, mathematics, and science.

The fifth section, **Internal VESOL Review and Reconciliation**, describes a two-phase reconciliation process, whereby VDOE and BRT faculty/staff collaborated to internally review, revise, and organize VESOL into Essentialized Assessment Frameworks (EAF) to: (a) ensure VESOL and associated complexity continuum (i.e., assessment boundaries) had consistent language and performance demands within and across the content areas and grade levels, and (b) prepare the VESOL for public release. The reconciliation process also served to map VESOL to existing alternate academic content standards in Oregon. Oregon's alternate standards are the basis of test items comprising the Oregon Extended Assessment (ORExt), the statewide alternate assessment in Oregon, which formed the initial item bank for the new VAAP.

This technical report provides summaries of processes and outcomes with a series of appendices referenced that include additional documentation. We use this structure to ensure a readable narrative with continuity but also access to greater detail and evidence of an ongoing VAAP development and validation process. Appendices are sequenced in the order in which they are mentioned in the main body of the report. This technical report documents empirical evidence consistent with the requirements outlined in [A State's Guide to the U.S. Department of Education's Assessment Peer Review Process](#), in particular, Critical Element 1.2 (Challenging Academic Content Standards that Correspond to the State's Academic Content Standards). These federal guidelines outline states' obligations for developing and implementing statewide accountability assessments under Title I of the *Elementary and Secondary Education Act of 1965* (ESEA) as amended by the ensuing *Every Student Succeeds Act of 2015* (ESSA).

## **Section 1 — Standards Essentialization Preparation**

The process for essentializing the Virginia Standards of Learning (SOL) into Virginia Essentialized Standards of Learning (VESOL) began with discussions between the Virginia Department of Education (VDOE) and Behavioral Research and Teaching (BRT) at the University of Oregon (UO) in the late spring-early summer of 2020. A schedule was developed (modifiable as necessary) that outlined working deadlines and deliverables for the proposed VESOL development and validation cycle. VDOE were then trained in the standards essentialization process by BRT and initial versions of the VESOL were drafted (see Section 2).

### **VAAP Planning – SOL Essentialization and VESOL Review – Summer to Fall 2020**

1. VDOE Essentializing SOL to Create VESOL/ Essentialized Assessment Frameworks (EAF) in 2020.
  - August 14 — Grades 3-8 and High School in Reading and Math; Grades 5, 8, and High School in Science, due to BRT from VDOE content area teams, focusing on:
    - Accessibility and appropriateness/relevance of content representation
    - VESOL strong linkage to SOL
    - Coherency and appropriateness of complexity continuum/performance demands within grades (horizontal articulation within content areas)
    - Coherency and appropriateness of complexity continuum/performance demands across grades (vertical articulation within content areas)
2. BRT Review/Revision of Preliminary VESOL/EAF (all dates below are 2020)
  - August 14 to August 28 — BRT reviews/refines/combines VESOL and linked Oregon Extended Assessment (ORExt) essentialized standards to create “working” Essentialized Assessment Frameworks (EAF; spreadsheets organized by content area

and grade that show each SOL and associated essentialized alternate standard  
VESOL)

- August 28 — BRT delivers draft of working EAF to VDOE for review.

### 3. VDOE Review/Revision of VESOL/EAF

- August 31 to September 4 — VDOE content area teams and leadership review EAF;  
key areas of attention: review/provide feedback and recommendations on if/how  
VESOL (essentialized and linked ORExt essentialized standards) need revised.
- September 8 to September 11— BRT reviews VDOE feedback and recommendations  
and revise and refine EAF/VESOL

### 4. VDOE Recruitment for SPED Teacher Review and Validation Study

- September 4 — Recruit participants and aggregate individual characteristics (i.e.,  
Name, Email, School, District, Position – General or Special Education,  
Certification(s), Degree(s), Years of teaching experience, Grade(s) currently teaching,  
Gender, Race/Ethnicity, and Content area / Grade(s) assigned to review for study).
- September 8 —  $n = 27$ , grouped in 3s by grade-band and content area: 3-5  
reading/math and elementary science; 6-8 reading/math and middle school science;  
high school reading/math/science — each grade band).

### 5. SPED Teacher Review and Validation Study

- September 14 to September 18 — BRT builds Special Education Teacher Review and  
Validation Study in Distributed Item Review (DIR) and training slides to, and  
registers teachers with DIR and communicates with teachers for Zoom training on  
September 21.
- September 14 or 15 — Special Education DIR Teacher Review and Validation Study

w/ VDOE.

- September 21 — BRT (w/ VDOE support) leads Special Education Teacher Training and opens the DIR for the Special Education Teacher Review and Validation Study.
- September 21 to October 28 — BRT and VDOE conducts VESOL Special Education Teacher Review and Validation Study.
  - September 21 to September 25 — Special Education teachers provide Round 1 of independent VESOL ratings, with BRT monitoring results for progress and quality.
  - September 28 to October 2 — BRT analyzes/summarizes and returns Round 1 results to Special Education teachers in format with ratings disagreements highlighted.
  - October 5 to October 9 — Special Education Teachers review Round 1 results and provide Round 2 of independent VESOL ratings for VESOL with ratings disagreements in Round 1.
  - October 12 to 16 — BRT analyzes/summarizes and returns Round 2 to Special Education teachers, in electronic format with remaining disagreements highlighted.
  - October 19 to 27 — SPED teachers review Round 2 results in preparation for resolving remaining disagreements during October 28 virtual meeting for third round of “in-person” (Zoom) resolution of remaining disagreements.
  - October 19 to 27 — BRT prepares Round 2 results, slides, and document supports for resolution phase meeting in which remaining disagreements will be resolved “in-person” (Zoom).

- October 28 (3-5pm EDT) — BRT presents Round 2 results and remaining VESOL disagreements to VDOE and SPED teachers participating in the resolution phase of the SPED Teacher Review Study, with teachers resolving remaining disagreements (those they reviewed over October 19 to 27) in separate Zoom rooms by grade-band and content area.
6. BRT/VDOE — Phase 1 VESOL/EAF Reconciliation
- November 2 to November 6 — BRT (with VDOE support) completes Phase 1 reconciliation of VESOL/EAF based on DIR SPED Teacher Review and Validation Study.
7. General Education Coordinator Review and Validation Study
- November 13 — BRT (w/ VDOE support) leads General Education Coordinator Training and opens the DIR for the General Education Coordinator Review and Validation Study.
  - November 16 to November 20 — General Education Coordinators review and provide VESOL ratings.
  - November 23 to November 27 — BRT (w/ VDOE support) reviews/revises VESOL/EAF based on results from General Education Coordinator Review and Validation Study (in preparation for ORExt item harvest and item development) and delivers to VDOE.
8. BRT/VDOE — Phase 2 VESOL/EAF Reconciliation and Internal Review
- December 2 to December 14 — VDOE/BRT meet “in-person” (Zoom) to conduct internal review/revision/reconciliation of VESOL/EAF.
    - December 2 to December 7 — Across content area

review/revise/reconciliation by VDOE/BRT content area teams.

- December 8 to December — Internal review/revise of all VESOL/EAF by VDOE/BRT content area teams.
- December 15 to December 18 — VDOE/BRT leadership internal review/revise of all VESOL/EAF.

9. BRT/VDOE finalize VESOL/EAF

- December 18 — VDOE/BRT leadership meet to agree on VESOL/EAF and plan next steps around item harvest (from ORExt item bank) and item writing (based on VESOL that are not part of ORExt essentialized standards) for Winter – Spring 2021.

## Training VDOE on Essentialization

Prior to training, VDOE personnel were divided into content area teams that would organize Zoom breakout sessions during and collaborative work outside of trainings (Table 1.1).

**Table 1.1**  
**VDOE Content Area Essentialization Teams**

Expertise	Reading	Mathematics	Science
Assessment-Special Education	Lia Mason*	Lia Mason*	Lesin Dippold*
Assessment-Content	Katherine Ringley and Lauren Zielenski	Donna Meeks	Tyler Waybright
Assessment-Admin	Kevin McClintock	Kevin McClintock	Frank Gilhooly
Special Education	Deborah Johnson	Kristin Williams	Daniel Irwin
Number of SOL on Blueprint	Reading: Grade 3 to EOC: 38 / Grade 8 EOC: 19	Grade 3 Mathematics to Grade 5 (draft): 15 High School Algebra I: Grade 8 (draft): 27 105	High School Biology (draft): 7

*Note.* \* = Team Lead.

### General Essentialization Training

On July 3, 2020, BRT researchers and VDOE leadership met to design and practice the standards essentialization training and a second, more specific content area-focused essentialization training. On July 14, 2020, VDOE was oriented to the essentialization process in a structured zoom training that was recorded and made available for one VDOE employee who could not attend. Below, is an adapted version of the agenda and topics list from the general essentialization training. The training slides distributed to all VDOE and BRT participants in advance of the July 14 meeting are shown in Appendix 1.B.1.

- Introductions (5 minutes)
- Background and Context for Essentialization in VA (5 Minutes)
- Essentialization of Standards of Learning (SOL; 30 Minutes)

- Context of Assessment and Standards in VA
- Essentialization Fundamentals
- Essentialized Assessment Frameworks
  - Oregon and Virginia
  - Low – Medium – High Complexity Continuum and Depth of Knowledge
- Essentialization Process: “S-C-O-R-E” (5 Minutes)
- Example 1: ELA (5 Minutes)
- Example 2: Science (5 Minutes)
- Break (30 Minutes)
- Example 3: Vertical Articulation and Hands-on Practice in Math (40 Minutes)
- Reducing the Number of SOL (15 minutes)
- Guided Essentialization Work (45 Minutes)
- Wrap-up (5 minutes)

The general essentialization training focused on defining and operationalizing, through examples and hands-on practice in Reading, Math, and Science, a four-step process abbreviated using the acronym “SCORE” (see Figure 1, below). The SCORE process results in essentialized alternate academic standards (VESOL in Virginia) that are linked to grade-level academic content standards (SOL). As shown in Figure 1.1 essentialization is generally organized into the four-step SCORE process that starts with the selection of a general education academic content standard and ends with the development of a *linked* alternate academic content standard that is reduced in depth, breadth, and complexity (RDBC). It is important to note that the use of the term “linked” (as opposed to the use of “aligned”) is purposeful as alternate standards are not directly aligned with general academic content standards. Rather, alternate standards link to

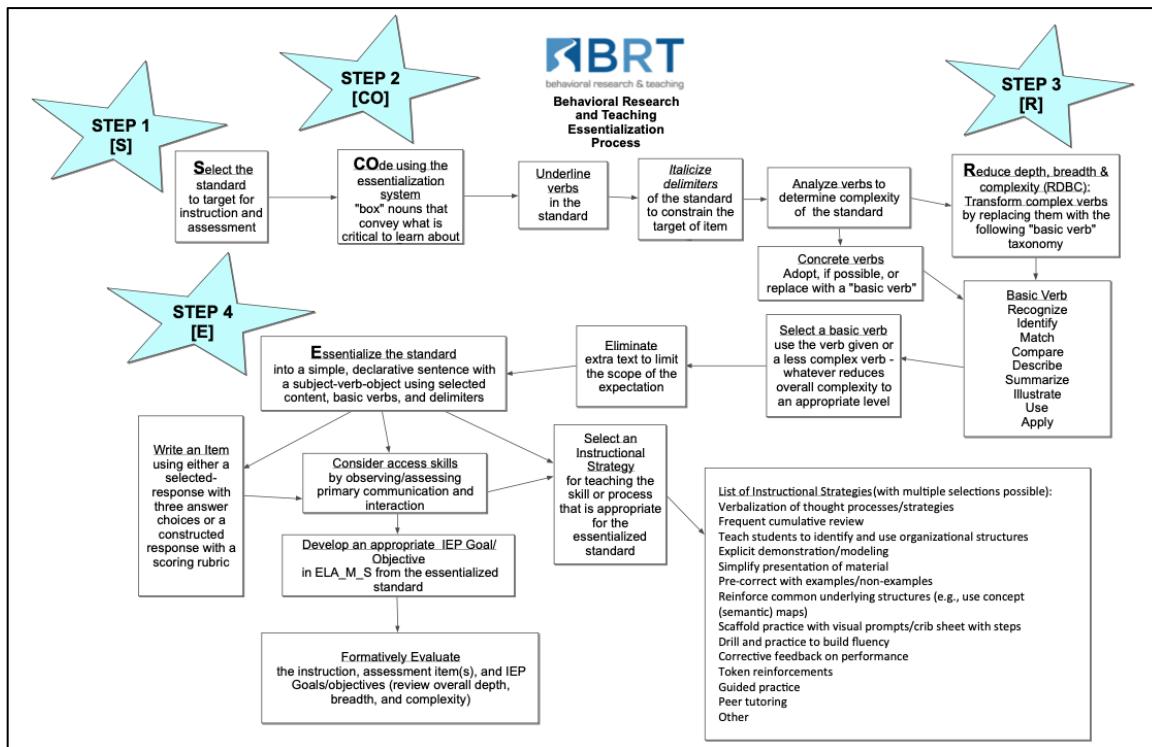
general education content that is RDBC to maintain academic rigor while keeping alternate academic content accessible, appropriate, and relevant for the SWSCD population. In addition to creating alternate academic standards, essentialization can be used to develop test items, instructional strategies and curricula, and goals and objectives for students' Individualized Education Programs (IEP) that are aligned with alternate standards. A detailed version of the SCORE process used in the general essentialization training of VDOE is shown in Figure 1.2.

Because the VESOL are intended to serve as the academic foundation of the VAAP alternate assessment, it is important that alternate academic standards be challenging yet accessible and appropriate/relevant for SWSCD while also serving a range of cognitive processing abilities within the student population. Thus, as part of the fourth step in the SCORE process, VDOE personnel were trained to develop VESOL that included a main standard along with associated (low, medium, and high — L-M-H) *complexity parameters* that defined lower and upper boundaries of targeted academic content and cognitive processing demands for instruction and assessment.

We emphasize here that *complexity parameters* are now publicly referred to as *complexity continuum*. Thus, in the first four sections of this report we refer to content boundaries as *complexity parameters* (what they were called during initial VESOL development and review by special and general education stakeholders), whereas beginning in the fifth section, content boundaries are referred to as *complexity continuum* (what they are now publicly called after VESOL went through reconciliation and revision by VDOE and BRT). It is essential that test items cover the full range of performance demands expressed in each VESOL. As such, labeling items (internally) as L-M-H helps ensure that we represent the full range of content/skills without accidentally biasing the item bank toward one end (or the middle) of a given continuum. Again,

is it important to understand that L-M-H terminology remains only as an internal item label and guide for test and item development as VESOL are presently released to the public with associated complexity continuum. In practice, public-facing *complexity continuum* express a range of accessible and appropriate/relevant standards-driven academic content for each VESOL and serve as assessment boundaries for VAAP test item development and are designed to help teachers and test developers work in concert to meet the diverse learning and assessment needs of SWSCD in Virginia.

**Figure 1.1**  
*Alternate Assessment Essentialization Flowchart*



**Figure 1.2***Summary of Essentialization SCORE Process****Step 1: Select an SOL***

Ensure academic relevance and accessibility for SWSCD (i.e., What is assessed in general assessment? What is taught in classrooms?)

***Step 2: Code using essentialization system***

Electronically (i.e., using Word, Pages):

1. **UNDERLINE** essential intellectual operations (i.e., verbs).
2. **BOLD** essential content (i.e., nouns).
3. (Parenthesize) delimiters of content or intellectual operations.
4. Summarize above.

***Step 3: Reduce depth, breadth, and complexity***

1. Transforming complex verbs to basic verbs,
2. Limiting scope of essential content/verbs (see Webb's DOK Levels 1 & 2), and
3. Eliminating unnecessary content and intellectual operations.

***Step 4: Essentialize the standard & Low(L)-Middle (M)-High (H) parameters***

1. Write essentialized standard.
2. Write L - M - H complexity parameters (complexity continuum in public version of VESOL).

After observing and discussing a series of essentialization examples and participating in guided hands-on VESOL development in Reading, Math, and Science breakout rooms, over the following week VDOE content area teams were asked to use the SCORE process to collaboratively essentialize 1-2 SOL and enter the VESOL and complexity parameters/continuum into a Google Form shown in Figure 1.3. BRT test development and content area researchers reviewed the initial VESOL development, organized constructive feedback, and developed a follow-up training designed to initiate development of the full VESOL standards bank within content area teams.

**Figure 1.3***SCORE Google Form*

SCORE Worksheet	
<b>Step 1:</b> Selected standard(s) and substandard(s) –	
<b>Step 2:</b> Code standard(s) –	
1. <u>Underline</u> essential intellectual operations (i.e., verbs).	
2. <b>BOLD</b> essential content (i.e., nouns).	
3. (Parenthesize) delimiters of content or intellectual operations.	
<b>Step 2 continued:</b> Summarize essential intellectual operations, essential content, and delimiters –	
Essential intellectual operations (verbs) include:	
Essential content (nouns) include:	
Essential delimiters include:	
<b>Step 3:</b> Reduce depth, breadth, and complexity (RDBC) by:	
1. Transforming complex verbs to basic verbs,	
2. Limiting scope of essential content/verbs (see <a href="#">Webb's DOK</a> Levels 1 & 2), and	
3. Eliminating unnecessary content and intellectual operations.	
<b>Step 4:</b> Essentialized standard –	<input type="button" value="▼"/>
Low parameters –	
Medium parameters –	
High Parameters –	

**Content Area Essentialization Training**

Following the essentialization training,

VDOE met with BRT for content area specific essentialization trainings on July 21 and July 23, 2020. These trainings focused on: (a) reviewing the characteristics of the SWSCD population in Virginia, (b) situating VESOL/VAAP development alongside the Oregon Extended Assessment (ORExt) model of alternate standards and assessment development, which provided the preliminary alternate standards bank and test item

bank for the VAAP, and which BRT leads in Oregon, (c) reviewing preliminary VESOL development from the general essentialization training, and (d) initiating co-development and ongoing review of VESOL by VDOE and BRT in preparation for Special Education (SPED) Teacher Review and Validation Study, with recruitment beginning in early September.

The goal of the content area trainings was to set up the creation of Essentialized Assessment Framework (EAF), spreadsheets organized by content area and grade-level that include: (a) selected Virginia SOL general academic standards, (b) linked VESOL that are RDBC using the SCORE process for accessibility, appropriateness, and relevance for SWSCD in Virginia, (c) associated complexity parameters that would define lower and upper boundaries of targeted alternate academic content and cognitive processing demands for each VESOL, and (d) the ORExt alternate standard(s) deemed to align (fully or partially) with each VESOL.

A portion of EAF from Grade 5 Reading, Mathematics, and Science is shown in Figure 1.4, below. The table is organized with the content area on the left followed by the VAAP reporting category, selected SOL standard, and essentialized and linked VESOL. The column on the far right shows the VESOL complexity parameters. The example of a portion of EAF displayed in Figure 1.4 is illustrative of how challenging alternate academic content standards (VESOL) were essentialized from Virginia's SOL and organized for subsequent review and validation by Virginia educators.

#### **Figure 1.4**

##### *Excerpt Example of EAF/VESOL*

<b>Grade 5</b>				
<b>Content Area</b>	<b>Reporting Category</b>	<b>SOL Standard</b>	<b>VESOL Standard</b>	<b>VESOL Complexity Parameters</b>
<b>Reading</b>	Demonstrate comprehension of nonfiction texts and use word analysis strategies	5.6 The student will read and demonstrate comprehension of nonfiction texts. c) Identify the main idea.	R-5.4 The student will answer questions about the main idea of a nonfiction text that is read to the student or that the student reads.	The nonfiction text could range from a sentence of six or fewer words to two sentences with five to seven words or a short paragraph.
<b>Math</b>	Number, Number Sense, Computation, and Estimation	5.1 The student, given a decimal through thousandths, will round to the nearest whole number, tenth, or hundredth.	M-5.1 The student will identify the location of 0.5 decimals between two whole numbers on a number line; round 0.5 decimals up to the nearest whole number.	Numbers to identify on a number line or to round to the nearest whole number could range by halves from 0.5 to 9.5.
<b>Science</b>	Living Systems and Ecosystem Interactions	4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have different structures and processes for obtaining energy; and c) plants and animals have different structures and processes for creating offspring.	S-5.1 The student will recognize that plants need light, air, and water to grow.	Using simple pictures, diagrams, or representations, concepts could range from: • recognizing plants (e.g., plants, trees, and flowers) need light, air, and water to grow to • identifying simple parts (e.g., roots, stems, leaves, flower, fruit) of plants that help them get light, air, and water to • comparing growth of plants when given appropriate or inappropriate amounts of light, air, and water.

Below is an adapted version of the agenda and topics list from the content area specific essentialization training. The training slides distributed to VDOE and BRT participants in advance of the trainings are shown in Appendix 1.B.2.

- Overview (45 minutes)
- SWSCD Population — Video Clips & Classification Stats

- Oregon Extended (ORExt) Assessment Model
  - ORExt Math Example: CCSS Essentialization to LMH & Items
  - Achievement Level Descriptors & Annual Measurable Objectives
- Our Task – Limited Time & Materials
  - Harvesting VESOL from Oregon Extended Essentialized Assessment Framework (EAF) — 3-Step Supplement to Essentialization
- Content Specific Breakouts (120 minutes)
  - Discuss Previously Submitted VESOL Work
  - Essentialization & 3-Step Supplement
  - Completion Plan & Workflow
- Team Report Out & Wrap-up (15 minutes)
  - Progress Made
  - Completion Plan & Workflow

Working versions of EAF, developed by VDOE content area teams in consultation with BRT, were due to BRT on August 14, 2020. EAF and VESOL were then to be iteratively (independently and collaboratively) reviewed and revised by BRT and VDOE over the rest of August and early part of September in preparation for the Special Education (SPED) Teacher Review and Validation Study training on September 21, 2020. Detailed information on these and other outcomes from the essentialization process and creation of EAF and VESOL in Reading, Mathematics, and Science is given in Sections 2-5 of this technical report.

## Section 2 — The Essentialization Process and Outcomes

After being trained in the essentialization process, VDOE personnel worked in assigned content area teams shown in Table 1.1 in Section 1 to create “working” preliminary versions of the Essentialized Assessment Frameworks (EAF)—spreadsheets organized by content area and grade that show Standards of Learning (SOL) selected, associated essentialized alternate standard VESOL, and complexity parameters (see Figure 1.4, above).

### SOL Essentialization to Create Preliminary EAF/VESOL

BRT provided guidance during VESOL development, including a Google directory in which VDOE was provided four sets of support documents.

1. Essentialization Documents
  - Overview of Process
  - Essentialization coding documents for each subject area (Reading, Mathematics, and Science) and grade level (3-8 and High School)
  - Guided Practice
  - SCORE Worksheets
  - Webb Cognitive Processing Verbs Wheel
2. General Assessment (SOL) Test Blueprints
  - Reading (Grades 3-8 and High School)
  - Mathematics (Grades 3-8 and High School Algebra I)
  - Science (Grades 5, 8, and High School Biology)
3. Oregon Essentialized Assessment Frameworks (EAF) from the Oregon Extended (ORExt) Assessment System
  - Reading (Grades 3-8 and High School)

- Mathematics (Grades 3-8 and High School)
  - Science (Grades 5, 8, and High School)
4. Virginia Standards of Learning
- Reading (Grades 3-8 and High School)
  - Mathematics (Grades 3-8 and High School Algebra I)
  - Science (Grades 5, 8, and High School Biology)

With a due date of August 14, 2020, VDOE completed content area-specific Google Forms by selecting a SOL, along with substandards (where applicable), and providing information on the following questions/prompts:

1. Has this SOL been essentialized to a VESOL, matched to an ORExt essentialized standard, or eliminated?
2. Write the essentialized standard VESOL.
3. Write your Low level VESOL assessment complexity parameter in the space provided and provide the rationale. (i.e., “Asks students to identify a living thing with a picture to support”).
4. Write your Medium level VESOL assessment complexity parameter in the space provided and provide the rationale. (i.e., “Asks students to identify a living thing without a picture for support”).
5. Write your High level VESOL assessment complexity parameter in the space provided and provide the rationale. (i.e., “Asks students to classify objects within a similar group”).
6. If an SOL is eliminated, give your rationale for eliminating the SOL. “This standard will not be essentialized because it is...”

7. If an SOL was eliminated because it is addressed by one or more SOL, enter the SOL code using the SOL documents. (e.g., 8.4d).
8. If an SOL/VESOL was deemed aligned with one (or more) ORExt essentialized standard(s), enter the ORExt code using the Oregon EAF. (e.g., S05PHS1.1).

BRT designed Google Forms to generate grade-level spreadsheets — working versions of VESOL/EAF. The most important outcomes of VDOE’s work at this stage of VESOL development were: (a) selecting and creating essentialized versions of the SOL and (b) elaborating low, medium, and high (L-M-H) levels of cognitive complexity parameters (later called *complexity continuum* in the public versions) for each VESOL. In particular, within each content area, VDOE personnel selected and essentialized SOL to create VESOL based on accessibility, appropriateness, and relevance of content representation for students with significant cognitive disabilities (SWSCD) in Virginia, coherency and appropriateness of complexity/performance demands within grades (horizontal articulation), and coherency and appropriateness of complexity/performance demands across grades (vertical articulation).

BRT researchers reviewed and revised EAF/VESOL. BRT focused on content accuracy, typographical errors/grammar, horizontal/vertical articulation, VESOL alignment with ORExt essentialized standards, and thus, test items in the ORExt system, which provided the preliminary alternate standards bank and test item bank for the VAAP. BRT revised VESOL and highlighted them in EAF spreadsheets using the following color-coding from August 14 to August 28, 2020, in preparation for VDOE follow-up review.

- *Red:* SOL deemed inaccessible, inappropriate, and/or irrelevant for SWSCD population
- *Orange:* SOL (if essentialized) would be addressed in another standard

- *Yellow:* SOL and associated VESOL do not align with any ORExt standard and new VAAP items would need to be developed/adapted
- *Green:* SOL and associated essentialized VESOL aligns with at least one ORExt standard and would allow harvesting/adoption of associated ORExt items

## **Outcomes from Essentialization by Content Area**

In Reading, the following outcomes were noted by BRT researchers during their review of preliminary VESOL/EAF (Table 2.1).

**Table 2.1**

*Preliminary Essentialization of Reading SOL*

<b>Grade</b>	<b>No. VESOL</b>	<b>No. Sub standards from SOL</b>
<b>3</b>	8	4 of 4
<b>4</b>	7	3 of 3
<b>5</b>	5	3 of 3
<b>6</b>	6	3 of 3 (1 required illustration)
<b>7</b>	6	3 of 3 (1 required illustration)
<b>8</b>	7	3 of 3 (1 required illustration)
<b>High School</b>	7	9 of 9 (1 required illustration)

During their review/revision of preliminary Reading EAF/VESOL, BRT researchers identified two common issues that they addressed.

- In several grades no VESOL were essentialized that targeted vocabulary content/skills (e.g., identify the meaning of words), which BRT researchers viewed as potentially problematic because it would leave a fundamental language development/reading skill unrepresented in the new alternate standards, and thus, many ORExt items unadopted for use in the VAAP. BRT researchers essentialized SOL to create two additional VESOL per grade that targeted understanding the meaning of words in fiction and nonfiction contexts, respectively.

- In several grades the complexity parameters/continuum, that in the final version of EAF/VESOL would operate as lower and upper assessment boundaries for targeted academic content and cognitive processing demands, were shifted from delimiting the number of words to the number of sentences.

From August 31 to September 4, 2020, the VDOE Reading content area team reviewed BRT revisions and accepted all of the BRT changes to the Reading' VESOL and complexity parameters, including the addition of vocabulary related VESOL (that were adapted from essentialized standards from the ORExt system). Regarding the complexity parameters, in which the content area team used the number of sentences as opposed to the number of words to delimit content and performance demands, it was noted that the team was trying to offer context to assist the student. VDOE accepted BRT revisions to complexity parameters in these instances, also.

Two issues were noted by VDOE content area team during their follow-up review in preparation for the SPED Teacher Review and Validation Study.

- Potential inconsistency in VESOL around requirements for using illustrations (i.e., why illustrations are required by a VESOL in one grade level and not a similar VESOL in another grade level).
- The amount of flexibility an VAAP examiner might have during the test administration (e.g., when administering the VAAP to students experiencing visual impairment/blindness [VI]).

In Mathematics, the following outcomes were noted by BRT researchers during their review of preliminary VESOL/EAF (Table 2.2).

**Table 2.2**  
*Preliminary Essentialization of Mathematics SOL*

Grade	No. VESOL	Aligned ORExt	New	Other SOL	SOL Eliminated
<b>3</b>	22	16	6	9	3
<b>4</b>	28	19	9	5	4
<b>5</b>	20	15	5	8	7
<b>6</b>	15	13	2	12	3
<b>7</b>	16	15	1	8	2
<b>8</b>	14	10	4	13	6
<b>High School</b>	12	8	4	8	8

During their review/revision of preliminary Mathematics EAF/VESOL, BRT researchers identified two other common issues that they addressed.

- In several grades, delimiting complexity parameters associated with essentialized standards from the ORExt that were deemed aligned with preliminary versions of VESOL did not align with the corresponding grade for the VESOL. This mismatch in performance demands by grade between the two states' essentialized standards, resulted in a need to adjust the across-grade (vertical) articulation of VESOL complexity parameters to maintain content representation, accessibility, and appropriateness/relevance of several standards.
- Secondary standards were complex to RDBC, as they often referred to very particular skills or content. BRT researchers with experience in secondary teaching felt that some algebraic skills targeted by VESOL, although linked to SOL content, may not align with the skills taught in classrooms and be overly complex or practically irrelevant for the population. Such VESOL were flagged for review by VDOE

personnel with experience in secondary curricula and instruction.

From August 31 to September 4, 2020, the VDOE Mathematics content area team reviewed BRT revisions and accepted most BRT changes to the Mathematics VESOL and complexity parameters. VDOE worked in concert with the BRT to refine complexity parameters to better align with ORExt standards. Once parameters were identified, teams examined each VESOL to ensure that the parameters aligned with delimiting ranges in content by grade (e.g., integer ranges allowable for counting/cardinality problems, integer ranges for problems involving one or more of the four main operations—addition, subtraction, multiplication, and subtraction, sets of geometric shapes for identifying/classifying and recognizing characteristics) and did not inappropriately overlap or jump between grades.

Multiple examinations/revisions were made as the number of essentialized standards in Mathematics was initially quite high, especially in the elementary grades. Any conflicting language or symbolic representations were checked against the Virginia SOL. VDOE made the final determination regarding VESOL to be included/removed during their follow-up review in preparation for the SPED Teacher Review and Validation Study.

In Science, the following issues were noted by BRT researchers during their review of preliminary VESOL/EAF.

**Table 2.3**  
*Preliminary Essentialization of Science SOL*

Grade	No. VESOL	Aligned ORExt	New	Other SOL	SOL Eliminated
5	18	14	4	1	2
8	14	9	5	8	4
High School	9	8	1	0	1

From August 31 to September 4, 2020, the VDOE Science content area team reviewed

BRT revisions and accepted most changes. A follow-up meeting was held with BRT/VDOE to clarify questions from the Science content area team. Three levels of “acceptance” were determined by the VDOE Science team: (1) accept as is, (2) accept with reservations/minor and questions to be answered, and (3) not yet accepted/major questions. VDOE leadership explained that the third level corresponded to very few VESOL. BRT and VDOE held follow-up meetings to reach consensus on working versions of the Science VESOL in preparation for the SPED Teacher Review and Validation Study described in detail in Section 3 of this report.

### **Section 3 — Special Education (SPED) Educator Review and Validation Study: Recruitment, Training, and Review Outcomes**

The Special Education (SPED) Educator Review and Validation Study was conducted from September 21 to October 28, 2020, with the goals of evaluating the linkage of the academic content in Virginia Essentialized Standards of Learning (VESOL) to that of the parent Standards of Learning (SOL), along with the accessibility and appropriateness/relevance of VESOL for students with significant cognitive disabilities (SWSCD) in Virginia.

#### **Special Education Educator Recruitment and Participants**

In early September 2020, VDOE recruited special educators to represent all eight regions of Virginia, and dozens of school divisions, with a total of 27 participating in the training and essentialization and linkage review process. Educators held a variety of positions in education, with all of them teaching in classrooms serving SWSCD or generic special education. All educators had considerable experience teaching SWSCD, with 17 educators having over 10 years of experience ( $M = 13.96$  years; *Median* = 13 years; *Range* = 3 to 28 years). Most educators taught across multiple grades and content areas, including in elementary, middle school, and/or high school settings in reading and language arts, mathematics, science, and social studies over the past couple of years. All educators had at least a bachelor's degree in education, special education, or related field; 17 educators had master's degrees. All educators had certificates or endorsements in specific disabilities (emotional, intellectual, autism, specific learning) and grade levels (early education, elementary, middle school, and/or high school). Five educators had an administrative and/or supervision endorsement. Of the 27 educators, the vast majority were females ( $n = 24$ ) and white ( $n = 23$ ), with three identifying as Black or African American and one as Asian. No educators indicated they were of Hispanic ethnicity. Educators' personal

statements highlighted expertise in teaching academic content to students with significant cognitive disabilities, with many emphasizing their development and use of adapted curriculum, behavioral supports, and embedded functional life skills (see Appendix 3.A.1).

### **Special Education Educator Training**

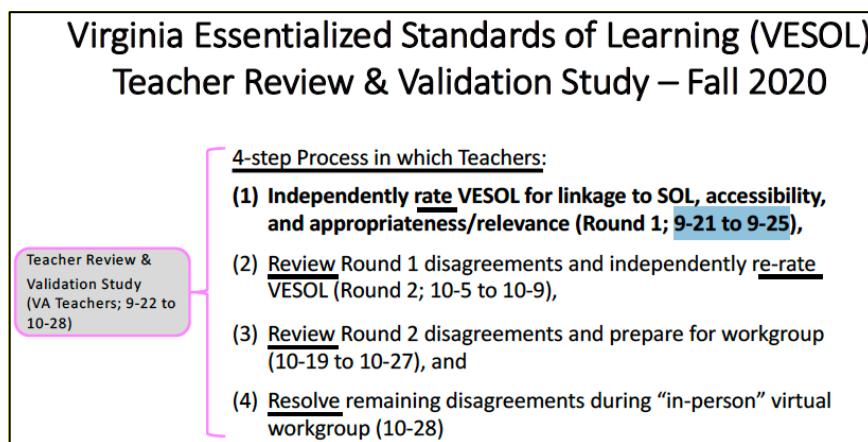
Prior to educators reviewing and rating the quality of VESOL, they were assigned to grades and content areas consistent with their education, current position, and professional experience and required to attend an “in-person” (Zoom) training conducted by BRT and VDOE. Educators were trained in the purpose for and steps in essentializing standards for SWSCD. A preliminary set of training slides and support materials was developed by BRT in mid-September, and a training was conducted with VDOE on September 14, 2020, with a focus on inserting appropriate language and additional context around VDOE assessment policies and typical practices in the state. The actual educator training was held on September 21, 2020 and focused on orienting participating educators to the SWSCD population, background, and context for the essentialization of new alternate academic content standards in Virginia, the essentialization process, and then study-related logistics for the review and validation effort, which included defining and operationalizing, through a series of examples and non-examples, the concepts of *linkage*, *accessibility*, and *appropriateness/relevance* and detailing the use of the [Distributed Item Review \(DIR\)](#), a BRT proprietary tool designed to securely collect independent ratings and feedback from professionals on assessment items and standards (Irvin, 2016). The training provided an overview of the population, the essentialization process, clarifications of linkage, accessibility, and appropriateness, and finally, the DIR tool used throughout the review. The training slides distributed to all educators are available in Appendix 3.B.1.

## Special Education Educator Review Process

In preparation for the study taking place from September 21 through October 28, 2020, VESOL and complexity parameters from the working essentialized assessment frameworks (EAF) were uploaded to the DIR and organized into 17 grade-level content area review assignments (Grades 3-8 and High School in Reading and Mathematics, and Grades 5, 8, and High School in Science) in which individual VESOL and accompanying complexity parameters were associated with their parent SOL and a series of review questions. For the review, educators completed two successive rounds of independent standards evaluation and ratings using the DIR, in which they reviewed all assigned grade- level/content area VESOL in Round 1, and then, only those VESOL with substantive ratings disagreements in Round 2. Grade-level, content area assignments in the DIR were assigned so that each VESOL was reviewed by three educators. Following the online reviews in the DIR, educators participated in a follow-up “in-person” (Zoom) resolution workshop in which remaining ratings disagreements were resolved, and then completed an anonymous, online survey that evaluated the training and VESOL review process. The process and timeline for the study is shown in Figure 3.1, below.

**Figure 3.1**

*SPED Teacher Review Timeline*



For the online reviews in Rounds 1 and 2, after creating a secure DIR user account, educators viewed a review assignment “homepage” where they confirmed the details of their review assignment and downloaded support materials (i.e., short videos to orient thinking to the student population, PDF of SOL, PDF of working versions of VESOL and complexity parameters, training slides, and guidelines for key concepts and definitions and review responsibilities/steps presented in the earlier training).

Educators completed secure online reviews by examining VESOL/complexity parameters (later revised as continuum) paired with their parent SOL on individual webpages and answering six review questions (*five* required radio button selected-response and *one* text box constructed-response). To move from one VESOL to the next and save their responses, educators clicked “Save and Continue”. See page 19, slides 55 and 56, in Appendix 3.B.1 for an example review assignment homepage and VESOL review page in the DIR. For the independent Round 1-2 reviews, SPED educators were encouraged to self-monitor attentiveness and consistency in responses and to budget their time for accuracy and quality. As such, they were able to start/stop their online reviews any number of times and were edit previously saved responses as needed.

BRT and VDOE team members agreed ahead of time that when a given group of three educators had a disagreement in *linkage, accessibility* and/or *appropriateness/relevance* that made a difference (i.e., ratings of 0 and 1 and 0 and 2 [linkage] or yes and no [accessibility and/or appropriateness/relevance] within a grade-level/content area group), those SOL/VESOL pairs would be loaded into the DIR as the review content for Round 2. In other words, substantive disagreements drove the VESOL included for Round 2 judgments. Rounds 1 and 2 ratings were used by SPED educators as a basis for discussion during the resolution phase of the teacher review study, and after the resolution phase by BRT/VDOE to further refine VESOL and

complexity parameters during the follow-up internal reconciliation and revision process (prior to the general education VESOL review.

The six review questions and response options for Rounds 1 and 2 of the study are shown below, with bold/italics added for emphasis in this report. Selected-response option questions 1-5 were required for all VESOL. Open-ended constructed- response option question 6 gave educators space to provide their rationale and recommendations for improving the VESOL and was required for any rating of “0” or “No” in questions 1-5.

1. Rate the strength of the ***linkage*** between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL).

*Response type (3-pt rating scale): 0 = No link; 1 = Sufficient Link; 2 = Strong Link*

2. Is the VESOL ***accessible*** to students with significant cognitive disabilities (SWSCD)?

*Response type (dichotomous): Yes / No*

3. Are L-M-H complexity parameters ***accessible*** to students with significant cognitive disabilities (SWSCD)?

*Response type (dichotomous): Yes / No*

4. Is the VESOL ***appropriate/relevant*** to students with significant cognitive disabilities (SWSCD)?

*Response type (dichotomous): Yes / No*

5. Are L-M-H complexity parameters ***appropriate/relevant*** to students with significant cognitive disabilities (SWSCD)?

*Response type (dichotomous): Yes / No*

6. For any “0” or “No” rating, please ***provide a rationale and recommendation/s*** for improving the standard. Please be specific and refer to the relevant VESOL and/or L-

M-H parameter details in your rationale(s) and recommendation(s).

*Response type (open-ended): Text box*

## **SPED Educator Review and Resolution Results**

Review study results related to SPED educators' ratings of *linkage* between SOL and VESOL are presented in this section. Additional results are available in the appendices.

### ***Round 1 Review and Results***

For Round 1, educators completed review assignments based on their assigned grade-level and content area, and within the DIR independently, made judgments using the six review questions noted in Section 3.C, above. Early in Round 1, BRT researchers reviewed initial review ratings and two educators required follow-up due to harsh responses (i.e., an excessive number of “0” ratings for *linkage* and “no” ratings for *accessibility* and *appropriateness/relevance*). BRT and VDOE, with whom they were professionally familiar) worked with the two educators separately, and presented additional examples and non-examples of *linkage*, *accessibility*, and *appropriateness/relevance*. They also emphasized the importance of considering the full range of cognitive abilities within the SWSCD student population when examining and rating the VESOL and complexity parameters. For example, both educators communicated that they taught in life skills rooms, serving students who were non-verbal. Thus, BRT researchers and VDOE sought to reframe the educators’ thinking around the observed diversity within the SWSCD population in Virginia.

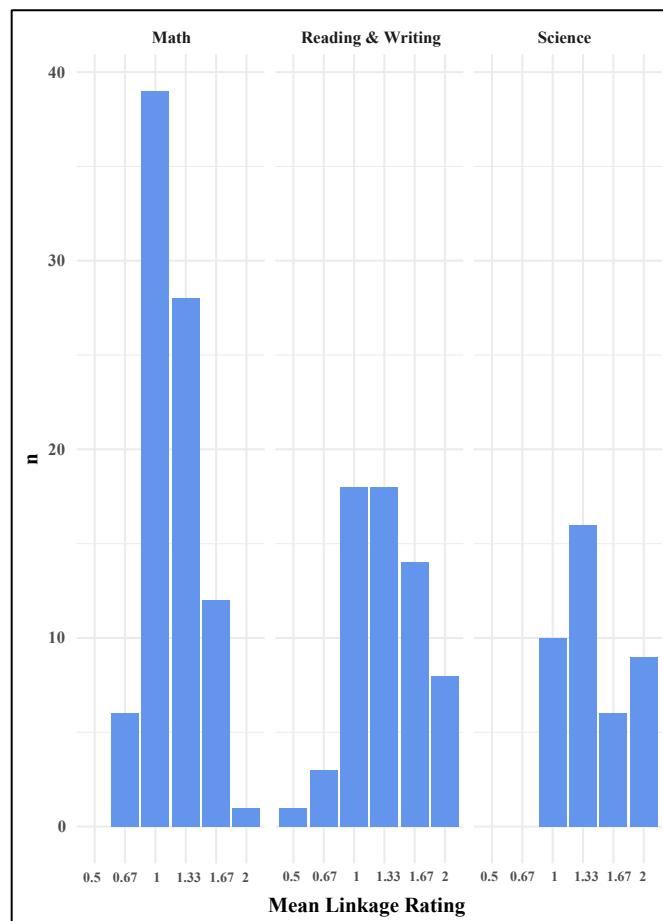
Round 1 had the following results. In the following three bar charts, the count of items is displayed by mean *linkage* rating (Figure 3.2), then the mean *linkage* rating is presented for each deidentified reviewer (Figure 3.3), and finally, the mean *linkage* rating for each reviewer by subject area (Figure 3.4). A listing of mean linkage ratings for Round 1 for each of the 207

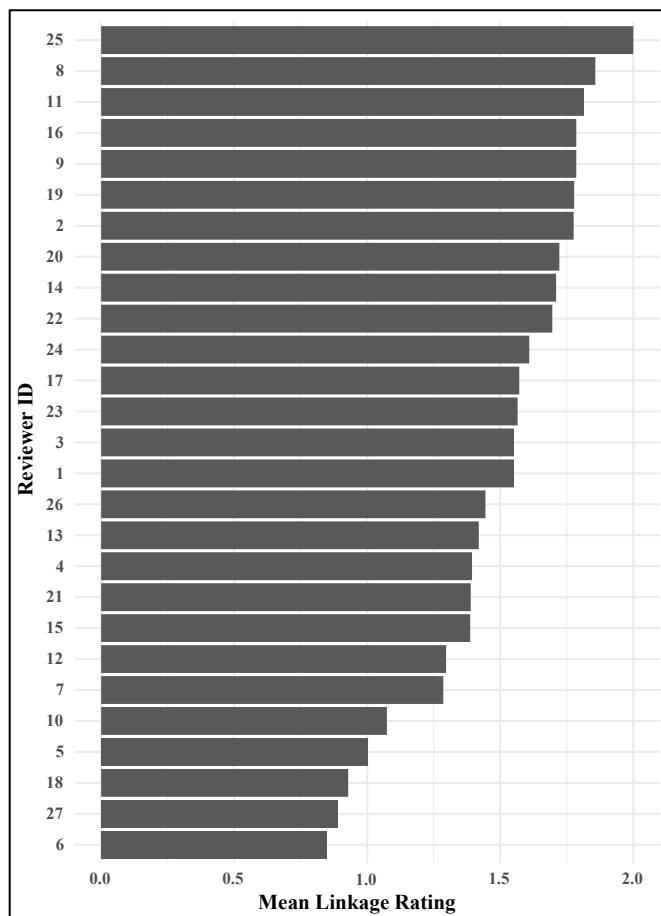
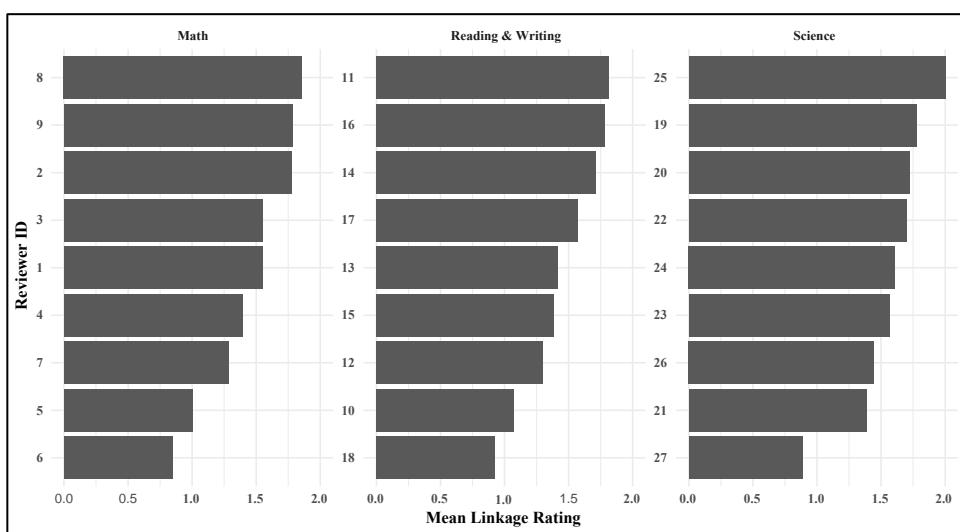
VESOL reviewed is available in Appendix 3.D.1. A listing of mean linkage ratings for Round 1 for each of the 27 participating SPED educators is available in Appendix 3.D.2.

The overall mean linkage rating across all 27 educators and content areas for Round 1 was  $M = 1.49$  (*range* = 0.85 to 2.00), while the mean linkage rating across the 227 VESOL rated was  $M = 1.48$  (*range* = 0.33 to 2.00). For Reading, the mean linkage rating for the nine assigned educators for Round 1 was  $M = 1.44$  (*range* = 0.93 to 1.81), while the mean linkage rating across the 72 VESOL rated was  $M = 1.45$  (*range* = 0.67 to 2.00), with five VESOL having an average rating below 1.00. For Math, the mean linkage rating for the nine assigned educators for Round 1 was  $M = 1.45$  (*range* = 0.85 to 1.86), while the mean linkage rating across the 105 VESOL rated was  $M = 1.46$  (*range* = 0.33 to 2.00), with seven VESOL having an average rating below 1.00. For Science, the mean linkage rating for the nine assigned educators for Round 1 was  $M = 1.57$  (*range* = 0.89 to 2.00), while the mean linkage rating across the 50 VESOL rated was  $M = 1.59$  (*range* = 0.67 to 2.00), with one VESOL having an average rating below 1.00. Out of the total of 227 VESOL rated in Round 1, a total of 13 items had an average rating below 1.00, the threshold for having a sufficient link to grade-level general academic SOL.

**Figure 3.2**

Item Plots for Average Linkage Ratings by Subject Area in Round 1



**Figure 3.3***Reviewer Plots for Average Linkage Ratings in Round 1***Figure 3.4***Reviewer Plots for Average Linkage Ratings by Content Areas in Round 1*

## **Round 2 Review and Results**

For Round 2, SPED educators again completed review assignments based on their assigned grade-level and content area, and within the DIR, independently made judgments using the same six review questions. In preparation for Round 2, BRT researchers analyzed Round 1 review data and met with VDOE personnel. The team generated a report summarizing the key outcomes from Round 1 as guidance to educators for Round 2 VESOL judgments. This takeaways and guidance document was shared with teachers and is available in Appendix 3.D.3. Additionally, each educator received a personalized ‘mismatch’ report — a spreadsheet that contained a listing of all VESOL for which there were substantive disagreements along with associated rationale and recommendations. Thus, to complete Round 2, educators were asked to carefully consider Round 1 review results with a goal of resolving differences in judgments.

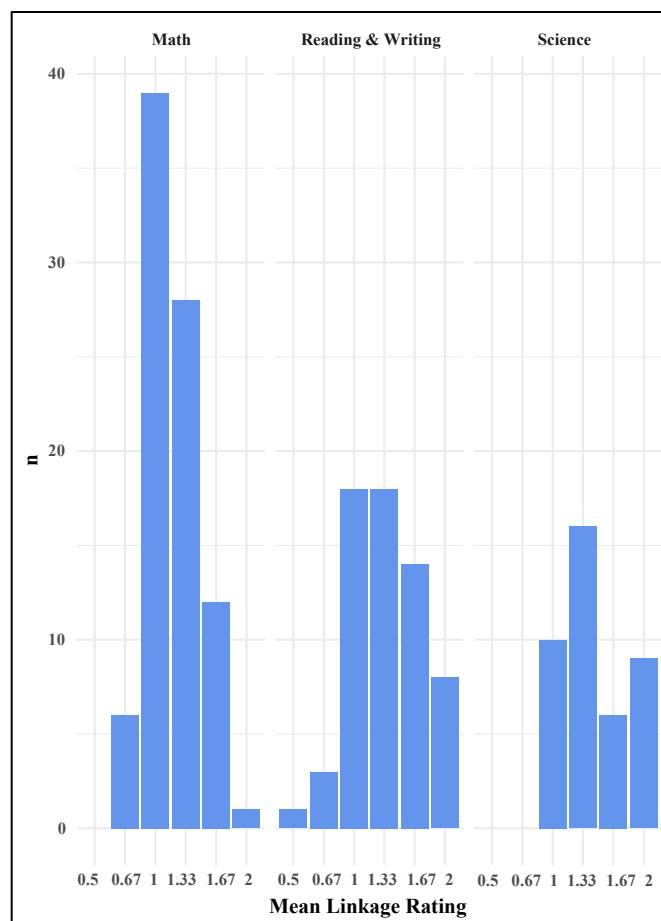
A series of three bar charts once again shows results from Round 2. The count of items is displayed by mean *linkage* rating in Figure 3.5. The mean *linkage* rating is presented for each deidentified reviewer in Figure 3.6. The mean *linkage* rating for each reviewer by subject area is shown in Figure 3.7. A listing of mean linkage ratings for Round 2 for each of the 189 VESOL reviewed is available in Appendix 3.D.4. A listing of mean linkage ratings for Round 2 for each of the 27 participating SPED educators is available in Appendix 3.D.5.

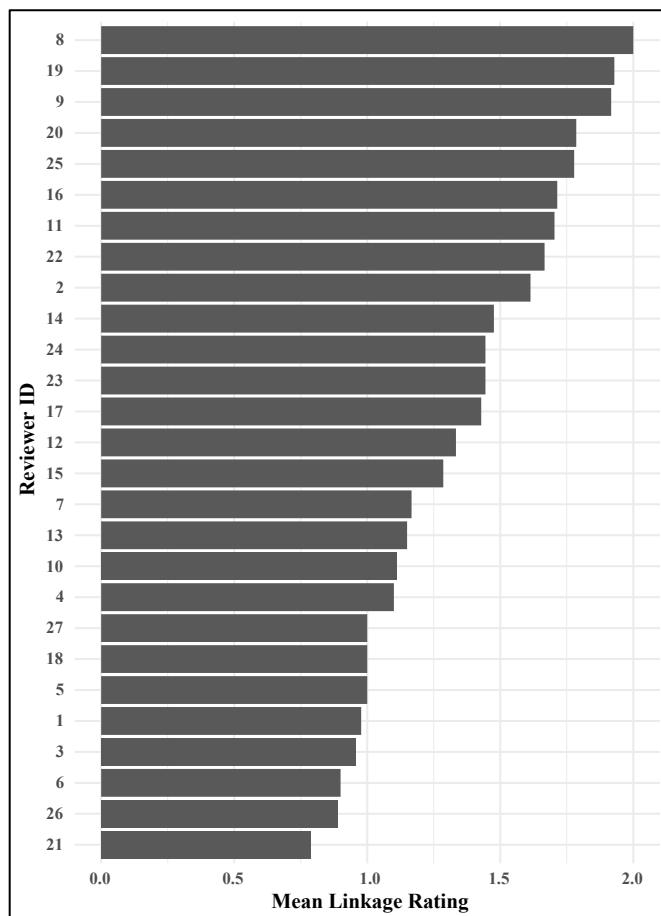
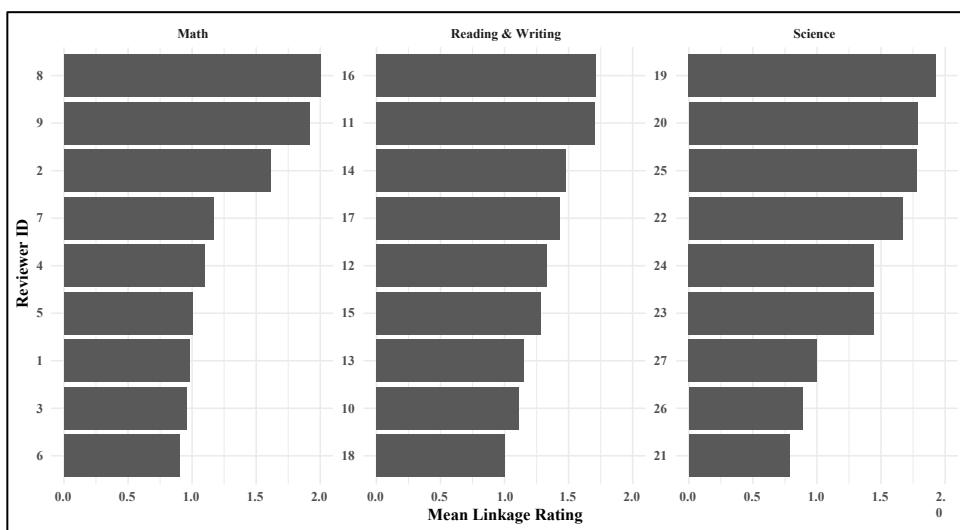
The overall mean linkage rating across all 27 educators and content areas for Round 2 was  $M = 1.35$  (*range* = 0.79 to 2.00), while the mean linkage rating across the 189 VESOL rated was  $M = 1.30$  (*range* = 0.50 to 2.00). For Reading, the mean linkage rating for the nine assigned educators for Round 2 was  $M = 1.36$  (*range* = 1.00 to 1.71), while the mean linkage rating across the 62 VESOL rated was  $M = 1.35$  (*range* = 0.50 to 2.00), with four VESOL having an average rating below 1.00. For Math, the mean linkage rating for the nine assigned educators for Round 2

was  $M = 1.29$  (*range* = 0.90 to 2.00), while the mean linkage rating across the 86 VESOL rated was  $M = 1.19$  (*range* = 0.67 to 2.00), with six VESOL having an average rating below 1.00. For Science, the mean linkage rating for the nine assigned educators for Round 2 was  $M = 1.41$  (*range* = 0.79 to 1.93), while the mean linkage rating across the 41 VESOL rated was  $M = 1.45$  (*range* = 1.00 to 2.00), with no VESOL having an average rating below 1.00. Out of the total of 189 VESOL rated in Round 2, a total of 10 items had an average rating below 1.00, the threshold for having a sufficient link to grade-level general academic SOL — a decrease of three VESOL compared to Round 1.

### **Figure 3.5**

*Item Plots for Average Linkage Ratings by Subject Area in Round 2*



**Figure 3.6***Reviewer Plots for Average Linkage Ratings in Round 2***Figure 3.7***Reviewer Plots for Average Linkage Ratings by Content Areas in Round 2*

## Round 1 and 2 Comparisons and Takeaways

A summary of Reading disagreements, including percent difference between Rounds 1 and 2, is in Table 3.D.1. In all grade-level groups, percentage disagreement decreased in Round 2, accounting for the total number of VESOL reviewed. Key themes are summarized in Table 3.D.2, which focused on accessibility and appropriateness/relevance of academic content.

**Table 3.D.1**

*Summary of Round 1 and Round 2 Reading Disagreements*

Elementary	<ul style="list-style-type: none"> <li>• R1: 27 VESOL – 82 disagreements (61% of 135 ratings/educator total)</li> <li>• R2: 27 VESOL – 15 disagreements (11% of 135 ratings/educator total; -50% disagreement from R1 to R2)</li> </ul>
Middle School	<ul style="list-style-type: none"> <li>• R1: 31 VESOL – 22 disagreements (14% of 155 ratings/educator total)</li> <li>• R2: 21 VESOL – 3 disagreements (3% of 105 ratings/educator total; -11% disagreement from R1 to R2)</li> </ul>
High School	<ul style="list-style-type: none"> <li>• R1: 14 VESOL – 32 disagreements (46% of 70 ratings/educator total)</li> <li>• R2: 14 VESOL – 10 disagreements (14% of 70 ratings/educator total; -32% disagreement from R1 to R2)</li> </ul>

*Note.* R1 = Round 1; R2 = Round 2

**Table 3.D.2**

*Summary of Key Themes After Round 2 Reading Ratings Judgments*

Elementary	<ul style="list-style-type: none"> <li>• Change complexity to meet needs of low/high functioning students; most suggestions make more difficult (e.g., add sentences or paragraph)</li> <li>• Combine/summarize terms in VESOL – change ‘event, idea, or information’ to ‘main meaning’</li> <li>• Combine VESOL that specify fiction and nonfiction texts ‘Students will understand the meaning of words in fiction and nonfiction passages’</li> <li>• Use/require graphics in VESOL</li> <li>• LMH varying from graphics to words/sentences to sentences/paragraphs</li> </ul>
Middle School	<ul style="list-style-type: none"> <li>• Ratings increased because VESOL interpreted to be broader than in R1</li> </ul>
High School	<ul style="list-style-type: none"> <li>• H too difficult, allow H passages to be read to student</li> <li>• VESOL requiring students to master ‘editing’ of text: <ul style="list-style-type: none"> <li>◦ Complexity too high for low functioning students</li> <li>◦ Consider relevance of functionality of punctuation/capitalization</li> <li>◦ Change to ‘Identify the correct word or punctuation’</li> </ul> </li> </ul>

A summary of Mathematics disagreements, including percent difference between Rounds 1 and 2, is presented in Table 3.D.3. In all but the elementary grade-level group, percentage disagreement decreased in Round 2. Key themes are summarized across grade-level groups in Table 3.D.4, which focused on accessibility and appropriateness/relevance of academic content.

**Table 3.D.3***Summary of Round 1 and Round 2 Mathematics Disagreements*

Elementary	<ul style="list-style-type: none"> <li>• R1: 58 VESOL – 83 disagreements (29% out of 290 ratings/educator total)</li> <li>• R2: 44 VESOL – 72 disagreements (33% out of 220 ratings/educator total; - +4% disagreement from R1 to R2)</li> </ul>
Middle School	<ul style="list-style-type: none"> <li>• R1: 33 VESOL – 98 disagreements (59% out of 165 ratings/educator total)</li> <li>• R2: 30 VESOL – 52 disagreements (35% out of 150 ratings/educator total; - 24% disagreement from R1 to R2)</li> </ul>
High School	<ul style="list-style-type: none"> <li>• R1: 14 VESOL – 39 disagreements (56% out of 70 ratings/educator total)</li> <li>• R2: 12 VESOL – 6 disagreements (10% out of 60 ratings/educator total; - 46% disagreement from R1 to R2)</li> </ul>

*Note.* R1 = Round 1; R2 = Round 2

**Table 3.D.4***Summary of Key Themes After Round 2 Mathematics Ratings Judgments*

Elementary, Middle School, & High School	<ul style="list-style-type: none"> <li>• Clear models for the students are needed to ensure that problems are complete and graphical representation is clear</li> <li>• There is sometimes a discrepancy between standards as written and how we visualize the assessment (e.g., if <math>x</math> is the standard, what kind of assessment item might be appropriate for a SWSCD) –complexity will help</li> <li>• VESOL and test items should be modern and useful for SWSCD</li> <li>• VESOL should serve and assess students who have difficulty accessing both lowest and highest complexity content</li> <li>• Use simple mathematical vocabulary, functional language is important (e.g., ‘smaller/larger’ more accessible than ‘more/less’)</li> <li>• All VESOL should be practically relevant to SWSCD (e.g., consider removing of abstract concepts like slope, power/exponents, square root)</li> <li>• Ensure eliminating VESOL in a lower grade does not eliminate skills required in later grades (e.g., exponents)</li> <li>• Strike a balance between life skills vs. academic skills</li> <li>• Standards language geared toward teachers. Assessment language and the complexity parameters appear geared toward students.</li> </ul>
--	--

A summary of Science disagreements, including percent difference between Rounds 1 and Round 2, is shown in Table 3.D.5. While the percentage disagreement decreased in Round 2 for middle school and high school reviewers, the percentage of Round 2 disagreements appear inflated because of how one educator in each grade-level group answered the yes/no review questions. Key themes are summarized in Table 3.D.6, which focused on accessibility and appropriateness/relevance of academic content, including all groups recommending reducing excessive verbiage.

**Table 3.D.5***Summary of Round 1 and Round 2 Science Disagreements*

Elementary	<ul style="list-style-type: none"> <li>• R1: 18 VESOL – 40 disagreements (44% out of 90 ratings/educator total)</li> <li>• R2: 14 VESOL – 38 disagreements (54% out of 70 ratings/educator total; +10% disagreement from R1 to R2)</li> </ul>
Middle School	<ul style="list-style-type: none"> <li>• R1: 23 VESOL – 53 disagreements (46% out of 115 ratings/educator total)</li> <li>• R2: 18 VESOL – 19 disagreements (21% out of 90 ratings/educator total; - 25% disagreement from R1 to R2)</li> </ul>
High School	<ul style="list-style-type: none"> <li>• R1: 9 VESOL – 27 disagreements (60% out of 45 ratings/educator total)</li> <li>• R2: 9 VESOL – 7 disagreements (16% out of 45 ratings/educator total; - 44% disagreement from R1 to R2)</li> </ul>

*Note.* R1 = Round 1; R2 = Round 2

**Table 3.D.6*****Summary of Key Themes After Round 2 Science Ratings Judgments***

Elementary	<ul style="list-style-type: none"> <li>• Understanding what linkage is/is not remains an issue for at least one reviewer (i.e., comments indicate rating based on <i>alignment</i>)</li> <li>• One reviewer answered “No” to Questions 2-4 or 2-5 if they thought either the VESOL or complexity needed improved, which artificially inflated percentage disagreement for R2</li> <li>• Reduce complexity of L complexity for physical science (i.e., electricity, sound, and light VESOL)</li> </ul>
Middle School	<ul style="list-style-type: none"> <li>• One reviewer answered “No” to Questions 2-4 or 2-5 if they thought either the VESOL or complexity needed improved, which artificially inflated percentage disagreement for R2 and sometimes did not give any recommendation/s for how to improve</li> <li>• Reduce complexity of L complexity parameters for physical science (i.e., electricity, sound, and light VESOL)</li> </ul>
High School	<ul style="list-style-type: none"> <li>• VESOL and complexity parameters contain superfluous verbiage</li> </ul>

**Resolution Phase Results and Discussion**

During the resolution phase of the SPED Educator Review and Validation Study, all 27 teachers reconvened “in-person” (Zoom) for training on October 28, 2020, and then divided into five content area/grade-level teams to discuss and resolve remaining disagreements after Round 2 of independent VESOL ratings. Prior to meeting in person, BRT/VDOE organized seven key themes that emerged from Round 1 and Round 2 independent reviews into a guidance document to help hone SPED teachers’ thinking as a basis for discussing and resolving remaining disagreements. The complete guidance document, with additional descriptions and context given for each key theme presented to SPED teachers during the resolution phase, is available in Appendix 3.D.6. The following seven themes were identified:

1. The population of students with significant cognitive disabilities (SWSCD) includes a wide range of abilities and performance possibilities — alternate academic standards offer opportunities for these students to learn academic content, opportunities for us

- to help them grow their knowledge and skill.
2. Accommodations and learning supports will be provided during any state testing — relevant accommodations and supports (e.g., augmented communication devices, calculators, universally designed illustrations) should be thought of as allowable and available for instruction and testing when considering the quality of VESOL and complexity parameters.
  3. Linkage is not alignment and is not intended to be.
  4. Carefully consider each review construct (linkage, accessibility, and appropriateness/relevance) independently.
  5. Carefully consider VESOL from complexity parameters independently when rating accessibility and appropriateness/relevance.
  6. Rationale and recommendations [for low ratings] need expanded and explained.

During the breakout room workgroup and discussion portion of the resolution meeting, BRT facilitated discussion, while VDOE observed and generally took the lead on notetaking. Throughout discussion, BRT/VDOE asked probing questions to prompt interaction amongst teachers. Although the general rule was to adopt each VESOL based on Round 2 feedback from most SPED educators (i.e., 2 of 3) in each grade- level grouping, all disagreements were discussed. On occasion, new issues were discovered that resulted in the majority adopting a recommendation of the outlier (third) reviewer. During resolution discussion VDOE/BRT took extensive notes as a basis for further review and revision of VESOL, and complexity parameters prior to the General Education Instructional Coordinator Review and Validation Study that directly followed.

As such, prior to launching the General Education Instructional Coordinator Review and

Validation Study (see Section 4, below), one leader from each of BRT and VDOE met on October 30, 2020, to synthesize takeaways from the SPED Educator Review and Validation Study, with a focus on typical alternate standards-based, classroom instructional and assessment practices in Virginia and how these should influence further review and refinement of VESOL. The two leaders compiled three questions and accompanying context to guide BRT/VDOE content area teams' use of results from the SPED study to revise VESOL, and complexity parameters prior to the General Education study which began on November 13, 2020:

1. Question – Should Essentialized Assessment Frameworks (EAF; spreadsheets organized by content area and grade that show selected Standards of Learning [SOL] and their associated VESOL and complexity parameters; see Figure 1.4 in Section 1) include clarifying statements that detail what the VESOL and complexity parameters are and/or are not?

Context – For SPED teachers, the prior VAAP program required they adhere to the to the “letter” of alternate standards. Whereas VESOL may need to err toward broadness to allow teachers flexibility to meet individual student needs in their classrooms and have a range of test items, the specificity around which the VESOL and curriculum frameworks will be viewed and used are also considerations.

2. Question – Should low complexity parameters be adjusted downward in complexity?

Context – SPED teachers routinely expressed concerns about low-performing SWSCD not being able to access the academic content and performance expectations in the VESOL and complexity parameters. How do we address this practical concern in ways that adhere to federal peer review guidelines while also building good will/consensus amongst educators and administrators in Virginia?

3. **Question** – Do VESOL and complexity parameters that mention the use of visuals (e.g., pictures, graphs, number lines, models) need greater flexibility built into how content is presented to students?

**Context** – SPED teachers working with visually impaired students and those with particular special instructional and testing needs (e.g., those who require manipulatives, color-enhanced graphics) have expressed a need for flexibility in implementing and assessing the standards.

### **Special Education Educator Review Evaluation Survey and Results**

After resolution, all 27 teachers responded to a survey designed to evaluate the essentialization review process and study logistics, including the training and the use of the DIR. Survey prompts comprised alternating sets of dichotomous selected-response and open-ended, constructed-response options designed for educators to elaborate on their dichotomous responses. The eight survey prompts are shown below, with bold/italics added for emphasis in this report.

1. Rate the ***training*** you received for completing your review assignments.

*Response type (dichotomous): Adequate / Inadequate*

2. Rate the ***support you received*** for completing your review assignments (e.g., key concepts and takeaways documents, resources in the DIR, follow-up emails, and Zoom meetings).

*Response type (dichotomous): Adequate / Inadequate*

3. Please give any recommendations for improving the ***training and/or support you received***.

*Response type (open-ended): Text box*

4. Rate the ***usefulness of the Distributed Item Review (DIR)*** for reviewing and rating the Virginia Essentialized Standards of Learning (VESOL).

*Response type (dichotomous): Useful / Not Useful*

5. Please give any recommendations for improving the ***usefulness of the DIR***.

*Response type (open-ended): Text box*

6. Rate the ***overall quality*** of the SPED Teacher Review and Validation Study.

*Response type (dichotomous): Adequate / Inadequate*

7. Please give any recommendations for ***improving the quality*** of the standard review process.

*Response type (open-ended): Text box*

8. Please share any additional comments about ***your experience*** as part of the SPED Teacher Review and Validation Study.

*Response type (open-ended): Text box*

Educators' responses and comments were generally positive and constructive. All 27 teachers, 96% ( $n = 26$ ) found the training and supports received and the overall quality of the study *adequate*. Similarly, 96% ( $n = 26$ ) of educators found the DIR *useful* for reviewing and rating VESOL. With respect to open-ended responses, SPED educators were typically pleased to be included in the alternate standards review and revision process, found the training and supports helpful, and the review process straightforward. Other areas of positive feedback focused on appreciation for the opportunity to collaborate with colleagues, gleaning perspectives from across Virginia, and being included in state-level decision-making.

Critical feedback and recommendations were generally constructive and focused on (a) using more "teacher friendly" and precise language and formatting in training and support

documents, (b) needing additional time to review independently and discuss disagreements with colleagues, (c) desiring greater balance between reviewing standards and discussing content integral for SWSCD, and (d) improving the clarity of communication between and from VDOE, BRT/UO, and teachers. One educator expressed a feeling of not being “heard” throughout the study. Another educator expressed disagreement with the current state of standards-based instruction and assessment of SWSCD, especially those students with the most significant disabilities; however, the same educator expressed optimism for the direction of the new VAAP. Full survey results, including unedited responses for improving the study, are available in Appendix 3.E.1.

## **Section 4 – General Education Linkage Review and Validation Study: Recruitment, Training, and Review Outcomes**

After the Special Education Teacher Review and Validation Study, in which special educators from across Virginia reviewed and gave recommendations for improving VESOL, BRT and VDOE revised VESOL and complexity parameters and recruited and trained a small sample of general education instructional coordinators to review and rate VESOL for their linkage to SOL and the accuracy and consistency of academic content. The goal of the study was for general education coordinators to apply their content area expertise to help validate the linkage between VESOL and SOL and ensure the alternate standards are consistent with what we know about the disciplines of reading, mathematics, and science.

### **General Education Review Study Recruitment and Participants**

In mid-October 2020, VDOE leadership recruited three general education instructional coordinators from the VDOE with expertise in reading, mathematics, and science. Coordinators held a variety of teaching and education leadership positions over their careers, with all having taught in general education classrooms that also served students with special education needs, including students with intellectual disabilities.

### **General Education Review Study Training**

On November 13, 2020, VDOE and BRT convened the three general education coordinators for a one-hour, in-person (Zoom) training to orient them to the SWSCD population, the essentialization process and its purpose, and study-related details, including the concept of *linkage* and the process for reviewing standards in the Distributed Item Review (DIR; Irvin, 2016). Specifically, the training focused on helping the coordinators better understand how and why general education content standards are reduced in depth, breadth, and complexity to meet

the diverse instructional and assessment needs of SWSCD — in ways that provide challenging learning opportunities yet are also accessible and appropriate/relevant to academic and post-secondary success. As a supplement to the in-person training, a learner characteristics guide was developed by VDOE and distributed to the general education coordinators. The guide outlined a broad range of characteristics observed within the SWSCD population under the topics of learning features, adaptive behaviors, and intellectual functioning. To reinforce the concept of linkage and the appropriate approach to answering review questions, BRT/VDOE also developed a key concepts and definitions supplemental document, available as a downloadable PDF in the DIR. The learner characteristics guide is available in Appendix 4.B.1. The training slides are available in Appendix 4.B.2 and key Concepts and Definitions are shown in Appendix 4.B.3.

### **General Education Review Study Process**

The General Education Linkage Review and Validation Study was nearly identical in structure but narrower in scope compared to the earlier SPED review study. General education coordinators securely logged into the DIR, viewed pairs of VESOL and SOL within their content area of expertise, and were asked to respond to two review questions focused on evaluating the linkage between VESOL and SOL. The two review questions and response options for general education study are shown below, with bold/italics added for emphasis. The selected-response option (question 1) was required for all VESOL-SOL pairs. The open-ended, constructed-response option (question 2) provided the general education coordinators an opportunity to detail their rationale and recommendation(s) for improving the VESOL and was required for any rating of “0” or “No” in question 1.

1. Rate the strength of the *linkage* between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL).

*Response type (3-pt rating scale): 0 = No link; 1 = Sufficient Link; 2 = Strong Link*

2. For any “0” or “No” rating, please ***provide a rationale and recommendation/s*** for improving the standard. Be specific and refer to the relevant VESOL and/or L-M- H parameter details in your rationale(s) and recommendation(s).

*Response type (open-ended): Text box.*

## **General Education Review Results and Discussion**

General education coordinators ranked linkage as *sufficient* or *strong* for almost all VESOL and SOL pairs in Reading and Science. The linkage ratings in Mathematics were lower on average. For Reading, the mean linkage rating across the 53 SOL/VESOL pairs reviewed was  $M = 1.00$ , with all VESOL rated as 1 (*sufficient*). For Mathematics, the mean linkage rating across the 127 SOL/VESOL pairs reviewed was  $M = 0.80$ , with 35 VESOL rated as 0 (*no link*), 83 VESOL rated as 1 (*sufficient*), and 9 VESOL rated as 2 (*strong*). For Science, the mean linkage rating across the 49 SOL/VESOL pairs reviewed was  $M = 1.38$ , with 2 VESOL rated as 0 (*no link*), 27 VESOL rated as 1 (*sufficient*), and 20 VESOL rated as 2 (*strong*).

General education coordinators provided comments that clarified the rationale behind their linkage ratings and offered solutions to perceived issues around academic content inaccuracy and inconsistency. The comments were aggregated by VESOL ID alongside those from the SPED review study and used by BRT/VDOE to review and revise VESOL, complexity parameters, during reconciliation (see Section 5). The coordinator who reviewed Reading VESOL provided one rationale/recommendation for revising a VESOL based on how fiction and non-fiction texts are characterized. The coordinator who reviewed Mathematics VESOL provided detailed rationale and recommendations for revising 104 of 127 VESOL. Her comments focused on improving the mathematical accuracy, the clarity of performance

expectations, and the consistency of horizontal and vertical articulation between VESOL. The coordinator who reviewed Science VESOL generally focused their rationale and recommendations on clarifying content for scientific accuracy and to avoid common misconceptions. This coordinator provided suggestions for the two VESOL they rated as having *no link* to the parent SOL and 10 VESOL.

## **Section 5 – Internal VESOL Review and Reconciliation**

Following the SPED and General Education Review Studies, on November 18, 2020, BRT and VDOE met to begin a two-phase VESOL reconciliation process. The overall goal was to reconcile observed discrepancies in language, academic content, and performance demands to ensure VESOL were horizontally articulated within grades and vertically articulated across grades and content areas, including documents outlining delimiting ranges in academic content) were consistent with VESOL. In the first phase of reconciliation, BRT/VDOE reviewed all VESOL and provided recommendations for revision. In the second phase, BRT/VDOE leadership used teams' recommendations to revise and refine VESOL.

### **Phase 1 Reconciliation Process**

For the first phase of reconciliation, two cross-organization teams were created to review all subject areas and provide recommendations for revision—the first team reviewing elementary grades (3, 4 and 5) and the second team reviewing middle and high school grades (6, 7, 8, and HS), with a crosswalk between Grades 5 and 6 completed by the first team. After an organizing meeting with the whole group in which the four discussion starters were examined and the two-phase procedures for reconciliation were covered, teams then met daily between from December 7 to December 11, 2020, to complete the first phase of reconciliation.

VESOL and complexity parameters were reviewed for accuracy and consistency of language and academic content within and across grades and content areas. Although all VESOL were reviewed, the teams focused was on identifying and recommending revisions for VESOL that appeared insufficiently linked to SOL and VESOL that had content and/or performance demands that appeared inconsistent with other VESOL in the same grade. To identify such VESOL, teams reviewed ratings and open-ended comments drawn from the two studies (special

and general education) alongside notes taken during the resolution phase of the SPED study. To accomplish the within- and across-grade and content area internal review and reconciliation, updated versions of the Essentialized Assessment Frameworks (EAF; spreadsheets organized by content area and grade that show selected Standards of Learning (SOL) and their associated VESOL and complexity parameters; see Figure 1.4 in Section 1) were uploaded as secure Google Sheets. Situating EAF in Google allowed VDOE/BRT to access and revise working versions of all VESOL and complexity parameters collaboratively and securely (i.e., the elementary team could observe the revisions being made by the middle/high school team in real time and vice versa).

Grade-band teams began by reviewing VESOL and complexity parameters in the lowest assigned grade-level in Reading, and proceeded upward to the next adjacent grade until all assigned grades were reviewed and revised. Once recommendations for revising the language and performance demands in Reading were completed, those recommendations served as an anchor for reviewing and revising Mathematics and Science, respectively, helping ensure that all VESOL and complexity parameters would be appropriately horizontally articulated within-grade and vertically articulated across grades and be consistent with educator and coordinator revision recommendations. A detailed description of the procedures for the first phase of reconciliation is available in Appendix 5.A.1.

## **Phase 1 Reconciliation Results**

Recommendations from the first phase of reconciliation bore common patterns across grades and content areas. Teams suggested multiple revisions to the progression of content and performance demands, which required revision of documents and complexity parameters for consistency within and across grades. Suggested revisions broadly targeted: (a) word count and

complexity of text and passages in Reading, (b) terminology and progression of concepts, operators, and operand ranges in Mathematics, and (c) precision of terminology and progression of concepts and cognitive processing demands in Science. Within content areas, additional patterns emerged that influenced teams' revision recommendations.

## **Phase 2 Reconciliation – Process and Results**

For the second phase or reconciliation, a small group of BRT/VDOE personnel and leadership, comprising members from both teams, met to review and incorporate suggested revisions collected during the first phase. The outcome was a reconciliation of final working versions of the VESOL and complexity parameters. Post-reconciliation revisions were later conducted by a small team of BRT and VDOE leadership over the summer months in 2021, see section 5.D, below).

VDOE/BRT met daily (Zoom) from December 14 to December 18 to complete the second phase of reconciliation. Using working versions of the EAF and revision recommendations from the first phase, VDOE worked in concert with the BRT to revise and refine VESOL and associated complexity parameters in tandem, beginning with Grade 3 Reading, and moving to the next adjacent grade, once observed discrepancies in language, academic content, and performance demands were reconciled and horizontally articulated. Math, and then Science, followed in the same manner, respectively.

Once VESOL and complexity parameters were revised for a given content area, vertical articulation was examined to ensure academic content was vertically articulated without overlap or large jumps between grades that would make meeting grade-level performance expectations less likely for SWSCD in Virginia. For example, VESOL and complexity parameters were closely mapped from Grade 5 to Grade 6 and from Grade 8 to High School in Reading and

Mathematics and from Grade 5 to Grade 8 and Grade 8 to High School in Science to ensure smooth transition in academic expectations from elementary to middle school to high school.

VESOL were then compared within grades for their accessibility and appropriateness/relevance for the SWSCD population and their alignment with alternate standards in Oregon. The number of essentialized standards was still quite high after the SPED and general education studies, especially in the elementary grades for Math and Science, and several were out of alignment with Oregon Extended (ORExt) system, which provided the preliminary alternate standards bank and test item bank for the VAAP (see Section 2, above). Several VESOL were removed, in a manner consistent across grades to avoid gaps in content coverage, to reduce the overall number of alternate standards in Math and Science while maintain sufficient linkage to the SOL. Final consensus determination was made by VDOE regarding VESOL to be included/removed during reconciliation.

After reconciliation, final working versions of grade-level EAF comprising VESOL, complexity parameters, linking SOL, and aligning ORExt alternate standards were compiled. A total of 214 VESOL across Reading ( $n = 54$ ), Mathematics ( $n = 111$ ), and Science ( $n = 49$ ) were accepted. Results are displayed by content area and grade in Tables 5.1 to 5.3.

**Table 5.1**  
*Reading Alignment Across Grades*

Grade	No. VESOL Aligned with ORExt Essentialized Standards
<b>3</b>	9 of 9
<b>4</b>	8 of 8
<b>5</b>	7 of 7
<b>6</b>	7 of 7
<b>7</b>	7 of 7
<b>8</b>	8 of 8
<b>High School</b>	8 of 8

**Table 5.2**  
*Mathematics Alignment Across Grades*

Grade	No. VESOL Aligned with ORExt Essentialized Standards	New VESOL
<b>3</b>	15 of 17	2
<b>4</b>	18 of 22	4
<b>5</b>	13 of 18	5
<b>6</b>	11 of 16	5
<b>7</b>	11 of 14	3
<b>8</b>	9 of 14	5
<b>High School</b>	5 of 10	5

**Table 5.3**  
*Science Alignment Across Grades*

Grade	No. VESOL Aligned with ORExt Essentialized Standards	New VESOL
<b>5</b>	15 of 18	3
<b>8</b>	20 of 22	2
<b>High School</b>	8 of 9	2

## **Final Review and Public Release**

Reconciliation was completed on December 18, 2020. The VESOL were publicly released in late summer 2021. VESOL are now available for download as a single PDF that includes VESOL and complexity continuum organized by content area and grade through [VDOE VAAP homepage](#).

## **References**

- Irvin, P. S. (2016). *Distributed Item Review: Administrator user guide* (Technical Report 1603). Behavioral Research and Teaching, University of Oregon.

## **Appendices**

Appendices are presented, below. They are named and ordered based on the section in which they appear in the main body of this technical report.

### **Appendix 1.B.1**

#### **General Essentialization — Training Slides**

11/7/22

Essentialization: Making Grade-Level Standards of Learning Accessible

Behavioral Research & Teaching (BRT)  
University of Oregon

BRT  
behavioral research & teaching

1

---

---

---

---

---

---

Training Agenda

- Introductions [5 minutes]
- Background & Context for Essentialization in VA
- Essentialization of Standards of Learning (SOL)
  - Context of Assessment & Standards in VA
  - Essentialization Fundamentals
  - Essentialized Assessment Frameworks
    - Oregon & Virginia
      - Low – Medium – High Complexity Parameters & DOK
  - Essentialization Process: "S-C-O-R-E"
- Example 1: ELA
- Example 2: Science [30 Minutes]
- Break [30 Minutes]
- Example 3: Vertical Articulation & Hands-on Practice in Math [40 Minutes]
- Reducing the Number of SOL [15 Minutes]
- Guided Essentialization Work [45 Minutes]
- Wrap-up [5 minutes]

BRT  
behavioral research & teaching

2

---

---

---

---

---

---

Introduction: Adult Learning

- Quality professional development involves:
  - Real-world Relevance
  - Learning in a Social Context
  - Diverse Perspectives and Interests
  - Application (Practice) of Learned Knowledge & Skills
  - Constructive Feedback & Ongoing Support
- We aim to attend to these aspects today

BRT  
behavioral research & teaching

3

---

---

---

---

---

---

1

11/7/22

**Introduction: Essentialization Context**

- Our focus is *academic* due to federal law — e.g., least-restrictive learning environment (LRE); Individuals with Disabilities Education Act (IDEA)
- Every child must access viable, diverse opportunities to learn grade-level content, especially content on which they are state-tested
- We will take an integrated approach to making grade-level content accessible for students with the most significant disabilities through essentialization of general education academic content standards



4

---

---

---

---

---

---

**Introduction: Essentialization Context**

- The *essentialization process* (and this training) was developed to help make assessment of VA's Standards of Learning (SOL) accessible for students with significant cognitive disabilities (SWSCD)
- Collaboration of the state department, general and special educators, test developers, and the education research community will be critical to successfully building Virginia's essentialized SOL (i.e., VESOL)



5

---

---

---

---

---

---

**Introduction: Essentialization Context**

- Virginia Alternate Assessment Program (VAAP) has most recently implemented a portfolio system for assessing the grade-level academic content learned by SWSCD
- Beginning academic year 2021, VDOE, in collaboration with VA teachers and researchers and test developers from the University of Oregon & BRT will implement a web-based, selected-response state assessment system based on essentialized SOL (VESOL)
- Coming to a theatre near you...the process will entail ongoing development & validation



6

---

---

---

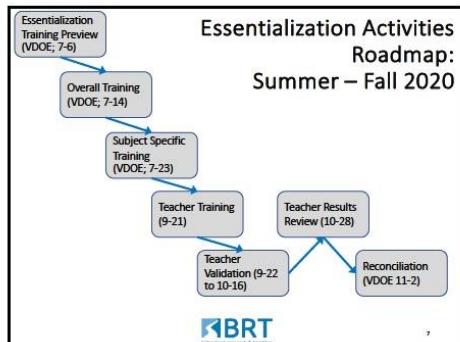
---

---

---

2

11/7/22



7

---



---



---



---



---



---



---



---

### Essentialization of General Education Academic Content Standards (Standards of Learning [SOL] in VA)



8

---



---



---



---



---



---



---



---

### Training Learning Outcomes

In this training you will become familiar with:

1. **Essentialization Process** – Systematic reduction in the depth, breadth, and complexity (RDBC) of SOL to create VESOL that are:
  - a. Strongly linked to original SOL and,
  - b. Vertically articulated across grades as a basis for accessible grade-level content (assessment & instruction)
2. **Essentialization Operationalized** – Essentialized assessment frameworks (EAF), consisting of grade-level SOL & VESOL, along with associated complexity boundaries that reflect ranges in performance demands (Low – Med – High), on which the new VAAP will be based for Reading, Math, & Science



9

---



---



---



---



---



---



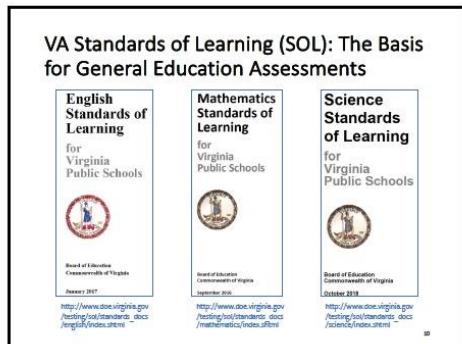
---



---

3

11/7/22



10

---

---

---

---

---

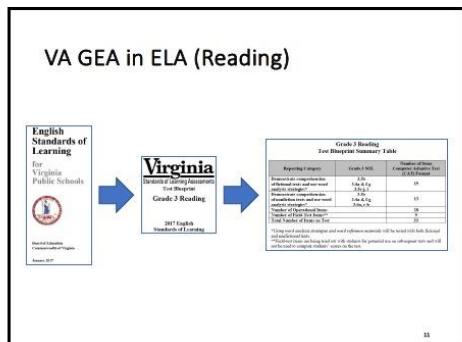
---

---

---

---

---



11

---

---

---

---

---

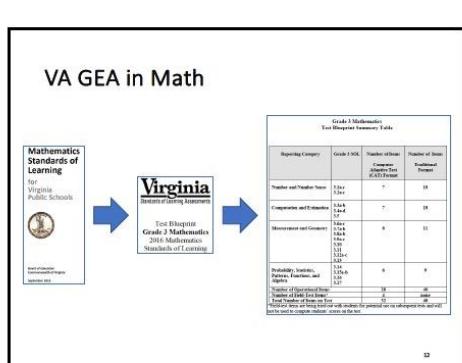
---

---

---

---

---



12

---

---

---

---

---

---

---

---

---

---

11/7/22

This slide is titled "VA GEA in Science". It features a large blue arrow pointing from the left towards a central box. The box contains the "Science Standards of Learning for Virginia Public Schools" logo, which includes a circular seal with a figure and text, and the text "Standards of Learning for Virginia Public Schools". Below the logo is the text "State Board of Education, 2010". To the right of the arrow is a table titled "Grade 5 Science Test Blueprint Summary Table". The table has four columns: Reporting Category, Student Standard or Objective, Grade 5 Standard(s) Addressed, and Number of Items. The reporting categories are Force, Motion, Energy and Matter; Health, Sound, and Light; Living Systems and Organism Interactions; and Earthlike Systems and the Universe. The student standards listed include 5-PS1-1 through 5-PS1-3, 5-PS2-1 through 5-PS2-3, 5-PS3-1 through 5-PS3-3, 5-PS4-1 through 5-PS4-3, 5-ESS1-1 through 5-ESS1-3, and 5-ESS2-1 through 5-ESS2-3. The number of items for each category ranges from 10 to 18. At the bottom of the slide, the text "Draft version of Science Test Blueprint for internal use only at this time" is displayed.

13

- Grade-level SOL included in GEA test blueprints are the starting point for essentialization
- In other words, it is these SOL that will be RDBC to create VESOL and populate the essentialized assessment frameworks (EAF)

14

15

5

11/7/22

EAF: Example from Oregon <small>(reduced in D, B, and/or C)</small>						
CODE	Content Area	Domain	Cluster [Groups of Standards]	CCSS Standard [3-10]	Essentialized Standard	Parameters: Suggested Instruction & Assessment Boundaries [L/M/H]
MED0ATL1	Math	Operations & Algebraic Thinking (OA)	1. Write and interpret numerical expressions.	I. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	Solve expressions involving parentheses or brackets, or parentheses and other symbols. <b>B &amp; C</b>	L = solve expressions involving parentheses or brackets of 0-20; M = solve expressions involving parentheses, brackets, or braces of 11-20; H = solve expressions involving addition and subtraction of 41-60.

• In OR, EAF show original CCSS/NGSS with associated RDC essentialized standards that link to the grade-level general standards, elaborated at three complexity levels (Low/Medium/High)  
 • Low – Medium – High parameters describe demonstrable/assessable skills, reflecting ranges in complexity for a given essentialized standard (appropriate to grade-level and content area)

16

16

EAF: Example from Oregon cont.						
 <ul style="list-style-type: none"> <li>Not all CCSS/NGSS are essentialized, based on: (1) content in general assessments, (2) practical and technical concerns around the inaccessibility/complexity of original standards (e.g., testing real estate possible, realism principle, &amp; behavior displayed), and/or (3) content addressed by other essentialized standards.</li> <li>See <a href="http://www.oregon.gov/ose/lap/ets-and-family/local-education/oregon-curriculum-development-pages/tech.aspx">http://www.oregon.gov/ose/lap/ets-and-family/local-education/oregon-curriculum-development-pages/tech.aspx</a>; where: <b>RED</b> = <del>essentialized</del>, &amp; <b>GREEN</b> = addressed by another essentialized standard</li> </ul>						

17

EAF: Example from Oregon: Coverage/Linkage to Original Standards				
Grade	CCSS	Essentialized	Addressed Another	% CCSS Covered
3	72	29	17	64%
4	67	30	13	64%
5	65	28	12	62%
6	61	25	9	56%
7	58	25	13	66%
8	60	26	8	57%
11-12	56	25	12	66%

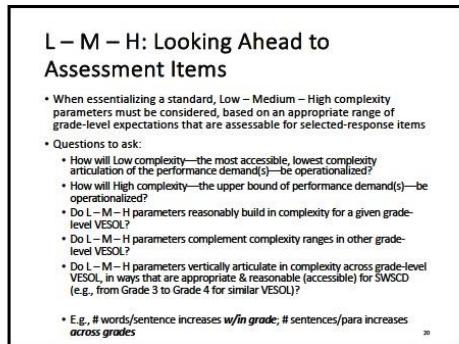
18

11/7/22

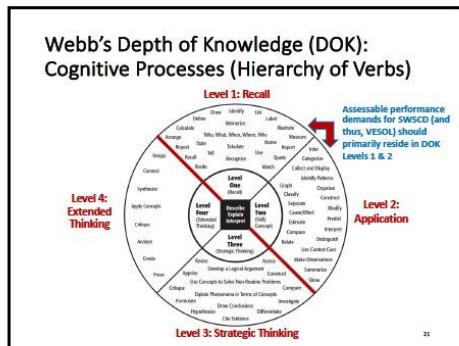
EAF: Example from Virginia								
CODE	Content Area	Strand	Standard (SOL)	Substandard	Essentialized SOL (VESOL)	Parameters: Suggested Range of Essentialized Assessment Boundaries (UNM4)	Rationale	Details
AE.2.01.05 S.1.6.a.3c	Science	Interactions in Earth/Space Systems	The student will investigate and understand the relationship between the sun and Earth.	key concepts include (v) that the sun is the source of energy and warmth; (vi) the sun warms land, air, and water; (vii) the sun's relative position in the morning, in the east and in the late afternoon is west.	The student will recognize that the sun provides light and heat for Earth – day vs. night and warm vs. cold; understand the presence or absence of sunlight on Earth based on presence or absence of clouds on Earth.	L – M – H (day vs. night; sun vs. Earth; N – M – H)	-	-

• CODE = Coding system that identifies source SOL (content area, strand, standard, substandard) and serves as stem for unique VESOL and item (e.g., S01ESS1.6\_1L ... S01ESS1.6\_5L; S01ESS1.6\_1M ... S01ESS1.6\_5M)  
 • VESOL developed and validated (e.g., content accuracy & representation, linkage to SOL) by VDOE experts and VA teachers with Gen-Ed, SPED, & content area expertise, respectively

19



20



21

7

11/7/22

## Essentialization Process



22

---



---



---



---



---



---

22

## "Mile-high" View of Essentialization

### General process to follow:

- Eliminate behaviors too nuanced or difficult to measure (in red below).
- Underline the essential verbs, bold essential nouns, and (parenthesize the conditional delimiters/features).

### Questions to ask:

- What is the big idea of the standard?
- Is there a sequence in these behaviors with one (some) subsuming others?
- Are some behaviors more important than others in the lives of SWSCD?
- Which of these behaviors can be formatted into a recall/recognition/identification response (performance demand)?

**IMPORTANT:** Essentialization focuses on what the student is being asked to demonstrate (i.e., *performance demand*). It is not a process of identifying every noun and every verb.



23

---



---



---



---



---



---

23

## Four-Step Essentialization Process: "S-C-O-R-E"

- **Step 1: Select a SOL**
  - Ensure academic relevance and accessibility (i.e., what's taught?)
- **Step 2: COde using essentialization system**
  - Detailed steps on the next slide
- **Step 3: Reduce depth, breadth, and complexity by:**
  - Transforming complex verbs to basic verbs
  - Limiting scope of content/verbs (see Webb's DOK Levels 1 & 2)
  - Eliminating unnecessary content and intellectual operations
- **Step 4: Essentialize the standard & L-M-H parameters**

**IMPORTANT:** Essentialization focuses on what the student is being asked to demonstrate (i.e., *performance demand*). It is not a process of identifying every noun and every verb.



24

---



---



---



---



---



---

24

11/7/22

### Essentialization COding System

Electronically (i.e., Word, Pages):

1. First, **UNDERLINE** essential intellectual operations (i.e., verbs).
2. Second, **BOLD** essential content (i.e., nouns).
3. Third, **(PARENTHESIZE)** delimiters of content or intellectual operations.
4. Summarize above.

*Note. We will return to Select a SOL, later.*



25

---



---



---



---



---



---



---



---

### Example #1 ELA

26

---



---



---



---



---



---



---



---

### Example #1 – ELA, Grade 1, Communication and Multimodal Literacies

K.1: The student will **build** (oral communication) skills.

- a) **Listen** (actively) and **speak** (using agreed-upon rules) for discussion.
- b) **Express** ideas in (complete) sentences and **express** needs (through direct requests).
- c) **Initiate** conversations.
- d) **Follow** (implicit) rules for conversation, (including taking turns and staying on topic).
- e) **Listen** and **speak** in (informal) conversations (with peers and adults).
- f) **Pickup** (various) texts and topics (collaboratively and with partners).
- g) **Use** voice level, phrasing, and intonation (appropriate for various language situations).
- h) **Follow** (one- and two-step) directions.
- i) **Ask** (how and why) questions (to seek help), **get** information, or **clarify** information.
- j) **Work** (respectfully) with others.

27

---



---



---



---



---



---



---



---

11/7/22

**Example #1 – ELA, Grade 1, Communication and Multimodal Literacies cont.**

**1. ESSENTIAL INTELLECTUAL OPERATIONS:**

The essential intellectual operations, or verbs, of communication include: listen, speak, express, initiate, follow, listen, speak, discuss, use, ask, get, clarify, & work.

However, the VESOL must reflect SWSCD who express themselves in ways other than 'oral' (e.g., sign language, hand signals, digital devices).

Thus, the critical verb that subsumes these and allows for diverse communication modalities is 'interaction'.

---



---



---



---



---



---



---



---

28

**Example #1 – ELA, Grade 1, Communication and Multimodal Literacies cont.**

**2. ESSENTIAL CONTENT:**

The essential content, or nouns, of communication include: discussion, ideas, sentences, needs, rules, conversations, text, topics, language situations [voice level, phrasing, and intonation], directions, questions, information, & others.

**3. DELIMITERS:**

The (delimiters) of communication include two aspects:

- Other people: Others, peers, adults, and partners.
- Format for interaction uses: agreed upon rules, complete [sentences], direct requests, implicit [rules], taking turns and staying on topic, informal [conversations], peers and adults, collaboratively [with partners], appropriate language situations [voice level, phrasing, and intonation], [following] one- and two-step [directions], how and why [questions], to seek help, work respectfully [with others].

---



---



---



---



---



---



---



---

29

**Example #1 – ELA, Grade 1, Communication and Multimodal Literacies cont.**

**ESSENTIALIZED STANDARD (DOK L2 TO L1):**

The student will *respond to another person by speaking/acting.*

VESOL includes 'rule-governed' interactions with others, such as listening, speaking [where possible], expressiveness, 'rules' for interacting [conversing], and taking turns, following directions, etc.

---



---



---



---



---



---



---



---

30

10

11/7/22

**Example #1 – ELA, Grade 1, Communication and Multimodal Literacies cont.**

**EXAMPLE SELECTED-RESPONSE ASSESSMENT ITEM:**

- **Prompt (image):** Picture of a parent (adult) and child sitting on the floor next to a table.
- **Prompt (statement):** Jane's mom asked her to come to the table to eat. Point to what the child should do.
- **Options (images):** child sitting, child walking to the table, child walking away from the table.

**Note.** Item reflects (aligns with) the VESOL, and links to original SOL, by requesting students to interact by indicating an appropriate sequence. In this item, images and language are simple, likely M or H complexity (i.e., beyond a simple yes/no response interaction).

---



---



---



---



---



---



---

31

**Example #2  
Science**

---



---



---



---



---



---



---

32

**Example #2 – Science, Grade 1,  
Interrelationships in Earth/Space Systems**

- 1.6 The student will investigate and understand the (basic) relationships (between) the sun and Earth.

Key concepts include the sun is the (source) of energy and light (that warms the land, air, and water), and the sun's (relative) position (in the morning is east and in the late afternoon is west).

1. ESSENTIAL INTELLECTUAL OPERATIONS: investigate and understand
  2. ESSENTIAL CONTENT: relationships, sun, Earth, [source of] energy and light, position
  3. DELIMITERS: Reflect basic relationships b/t the sun and Earth: that the sun warms land, air, and water, [rises, is positioned] in the morning in the east, and [sets, is positioned] in the late afternoon in the west.
- Essentialized Standard:** The student will recognize that the sun is a source of heat and light on Earth and understand the difference between day and night.

---



---



---



---



---



---



---

33

11

11/7/22

**Example #2 – Science, Grade 1,  
Interrelationships in Earth/Space Systems**

Low – Med – High examples: (slide 17): L – identify day vs night; Sun vs. Earth; M – Recognize that Sun provides light and heat for Earth; H – infer day vs night and warm vs cold based on presence/absence of sunlight on Earth.

L – Which shows daytime? (uses graphic representation only)

- a. [graphic of outdoors w/ sun overhead]
- b. [graphic of outdoors w/ stars and moon overhead]
- c. [pic of Earth]

M – Which gives light to the Earth? (uses graphic representation and text)

- a. Moon (graphic of Moon)
- b. Sun (graphic of Sun)
- c. Tree (graphic of tree)

H – What does the Sun give the Earth? (uses graphic representation and text)

- a. Light (graphic of Sun shining outdoors)
- b. Water (graphic of clouds raining outdoors)
- c. Air (graphic of wind swirl blowing outdoors)

34

---



---



---



---



---



---



---



---



---



---

34

**Break (30 minutes)**

---



---



---



---



---



---



---



---



---

35

**Vertically Articulated & Hands-on  
Example #3  
Math**

36

---



---



---



---



---



---



---



---



---

12

11/7/22

**Vertically Articulated Example #3 Roadmap**

- We are going to examine a Grade 1 Math SOL which has been coded, reduced, and essentialized.
- After that, we will take a vertically articulated Grade 2 Math SOL and work through the same process, using the completed Grade 1 SOL as a model.
- We will check in after each step, working through pages 2-4 on the Essentialization Worksheet.

37

---



---



---



---



---



---



---



---



---

37

**Vertically Articulated Example #3: Math, Grade 1, Number and Number Sense**

- 1.1 The student will
- a) count forward orally by ones to 110, (starting at any number between 0 and 110);
  - b) write the numerals 0 to 110 (in sequence and out-of-sequence);
  - c) count backward orally by ones (when given any number between 1 and 30); and
  - d) count forward orally by ones, twos, fives, and tens (to determine the total number of objects) to 110.
1. ESSENTIAL INTELLECTUAL OPERATIONS (VERBS): count, write, and determine.  
 2. ESSENTIAL CONTENT (NOUNS): ones, 110, numerals, 0, 1, 30, number, objects  
 3. DELIMITERS: starting at any number between 0 and 110, in sequence and out-of-sequence, backward orally by ones when given any number between, forward orally by ones, twos, fives, and tens
- Essentialized Standard: The student will *identify a number in a sequence.*

=

---



---



---



---



---



---



---



---



---

38

**Vertically Articulated Example #3: Math, Grade 2, Number and Number Sense cont.**

- 2.2 The student will:
- a) count forward by twos, fives, and tens to 120, starting at the various multiples of 2, 5, or 10;
  - b) count backward by tens from 120; and
  - c) use objects to determine whether a number is even or odd.

=

---



---



---



---



---



---



---



---



---

39

13

11/7/22

### Vertically Articulated Example #3: Math, Grade 1, Number and Number Sense cont.

[Back to Grade 1...](#)

- 1.1 The student will

  - a) count forward orally by ones to 110, (starting at any number between 0 and 110);
  - b) write the numerals 0 to 110 (in sequence and out-of-sequence);
  - c) count backward orally by ones (when given any number between) 1 and 30; and
  - d) count forward orally by ones, twos, fives, and tens (determine the total number of objects) to 110.

**YOUR TASK:** On page two of your worksheet, CODE the Grade 2 SOL using the essentialization process: underline verbs, **bold content nouns**, and (parenthesize delimiters). Use the Grade 1 example above as a guide.

40

### Vertically Articulated Example #3: Math, Grade 2, Number and Number Sense cont.

#### **Step 2 (CO of SCORE):**

**Code the standard using the essentialization process; underline verbs, **bold** content nouns, and (parenthesize delimiters).**

## 2.2 The student will:

- a) count forward by twos, fives, and tens (to 120, starting at the various multiples of 2, 5, or 10);

b) count backward by tens (from 120) and;

c) use objects to determine (whether a **number** is even or odd).

2

41

### Vertically Articulated Example #3: Math, Grade 1. Number and Number Sense cont.

[Back to Grade 1](#)

- 1.1 The student will

  - a) count forward orally by ones to 110, (starting at any number between 0 and 110);
  - b) write the numerals 0 to 110 [in sequence and out-of-sequence];
  - c) count backward orally by ones [when given any number between] 1 and 30; and
  - d) count forward orally by ones, twos, fives, and tens [to determine the total number of objects] to 110.

1. ESSENTIAL INTELLECTUAL OPERATIONS: count, write, and determine
  2. ESSENTIAL CONTENT: ones, 110, numerals, 0, 1, 30, number, objects
  3. DELIMITERS: starting at any number between 0 and 110, in sequence and out-of-sequence, backward orally by ones when given any number between, forward orally by ones, twos, fives, and tens

**YOUR TASK:** On page three of your worksheet, begin RDBC the Grade 2 SOL by listing the essential verbs, nouns, and delimiters. Use the Grade 1 example above as a guide.

6

42

14

11/7/22

### Vertically Articulated Example #3: Math, Grade 2, Number and Number Sense cont.

- 2.2 The student will:

  - a) count forward by twos, fives, and tens (to 120, starting at the various multiples of 2, 5, or 10);
  - b) count backward by tens (from 120) and;
  - c) use objects to determine (whether a number is even or odd.)

1. ESSENTIAL INTELLECTUAL OPERATIONS: count, starting, use, determine

2. ESSENTIAL CONTENT: twos, fives, tens, 120, multiples, objects, number

3. DELIMITERS: to 120, starting at various multiples of 2, 5, or 10, from 120, whether a number is even or odd

43

43

### Vertically Articulated Example #3: Math, Grade 1, Number and Number Sense cont.

- Back to Grade 1...**

**1.1** The student will  
a) count forward orally by ones to 110, (starting at any number between 0 and 110);  
b) write the numerals to 110 in sequence and out-of-sequence;  
c) count backward orally by ones (when given any number between 1 and 30); and  
d) count forward orally by ones, twos, fives, and tens [to determine the total number of objects] to 110.

**1. ESSENTIAL MATHEMATICAL OPERATIONS:** count, write, and determine

**2. ESSENTIAL CONTENT:** ones, 110, numerals, 0, 1, 10, numbers, objects

**3. DELIMITERS:** starting at any number between 0 and 110, in sequence and out-of-sequence, backward orally by ones when given any number between 1 and 30, forward orally by ones, twos, fives, and tens

**YOUR TASK:** On page four of your worksheet, use the essential intellectual operations (verbs), content (nouns), and delimiters to write a new essentialized Grade 2 standard (YESOL). Use the Grade 1 example above as a guide.

44

44

### Vertically Articulated Example #3: Math, Grade 2, Number and Number Sense *cont.*

- 2.2 The student will:

  - a) count forward by **tens, fives, and tens** (**to 120**, starting at the various multiples of 2, 5, or 10);
  - b) count backward by **tens** (**from 120**) and;
  - c) use objects to determine whether a number is even or odd.)

1. ESSENTIAL INTELLECTUAL OPERATIONS: count, starting, determine

2. ESSENTIAL CONTENT: two's, fives, tens, 120, multiples, objects, number

3. DELIMITERS: to 120, starting at various multiples of 2, 5, or 10, from 120, whether a number is even or odd.

**Essentialized Standard (VESOL):** The student will recognize similarly grouped objects.

5

45

15

11/7/22

## Reducing the Number of SOL

46

---

---

---

---

---

## Reducing the Number of SOL

### Scaffolded elimination of SOL to create VESOL:

1. GEAs – SOL *not assessed* in the General Education Assessment
2. Feasibility & Appropriateness – Real estate, Realism, and Behavioral considerations
3. Logistical – Addressed by another VESOL (i.e., essentializing a SOL results in a VESOL that would address)

47

---

---

---

---

---

## Reducing the Number of SOL cont.

### Four-Step Essentialization Process ("S-C-O-R-E") — Step 1: Select a SOL

- **Real estate consideration:** Multiple items per standard are needed to accurately reflect mastery. With a 30-item test, selecting specific SOL, merging like SOL, and summarizing SOL allow for multiple items per standard. For example, Reading 3.5d 'Compare and contrast settings, characters, and plot events' is specifically addressed in 3.5e. These SOL components can be essentialized into one VESOL with specifics (plot, narrator, and questions about the story) used to guide item writing.
- **Realism consideration for this population:** What is realistic for SWSO and what is taught in the classroom. For example, the use of homophones (Reading 3.4a) requires higher level thinking and may not be appropriate.
- **Behavior consideration for this population:** Accessibility is crucial for SWSO. SOL that specify behaviors such as speaking or writing, etc. should not be used. For example, Reading 3.1, and 3.2 'Communication and Multimodal Literacies' should not be essentialized (and are not assessed in the general assessment).

48

---

---

---

---

---

16

11/7/22

**Reducing the Number of SOL cont.**

**SCORE – Step 1: Select a SOL**

Highlighting scheme (our take, to be completed by VDE and validated by VA teachers):

- Red – Do not use (not assessed in GEA – see test blueprints)
- Yellow – Do not use (real estate, realism, & behavioral considerations)
- Green – Use these (SCORE using provided worksheets, & enter in respective Google Form)

49

---



---



---



---



---



---



---



---



---

**Reducing the Number of SOL cont.**

Example: ELA, Grade 3 SOL



50

---



---



---



---



---



---



---



---



---

**Reducing the Number of SOL cont.**

Example: ELA, Grade 3 SOL



51

---



---



---



---



---



---



---



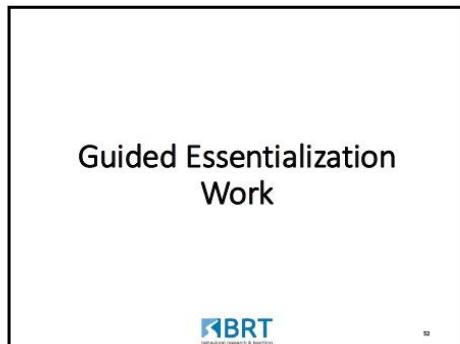
---



---

17

11/7/22



52

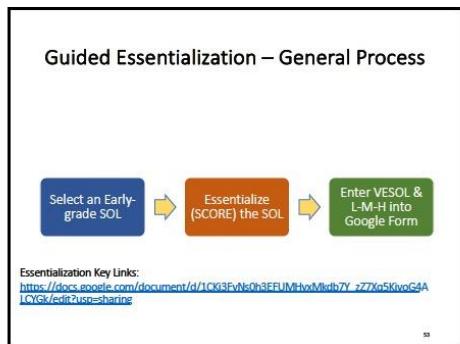
---

---

---

---

---



53

---

---

---

---

---

**Guided Essentialization: Your Mission**

Google Drive – Essentialization Training & Support Documents  
[https://drive.google.com/drive/folders/1MaPaflytaebu\\_P25RcmotSrdiuCyc-3upgsharing](https://drive.google.com/drive/folders/1MaPaflytaebu_P25RcmotSrdiuCyc-3upgsharing)

Over the next 45 minutes, use provided worksheets and support docs to:

1. SCORE a grade-level SOL in each of, Reading, Math, & Science, and
2. Enter new VESOL and associated L-M-H complexity parameters into the respective Google Form (begins building content-area EAF).

We will work in small groups by content area in Zoom breakout rooms.  
 BRT content area / assessment experts will collaborate & provide support.  
 Please ask questions!

BRT  
behavioral research & training

54

---

---

---

---

---

18

11/7/22

**Guided Essentialization – Worksheets & Support Docs**

Worksheets & Support Documents are accessed and downloadable via Google Drive in the **Essentialization Work Docs folder**:  
[https://drive.google.com/drive/folders/1mFAiIy3AEfhu\\_Pz5RcmotSxliuCVcc-?usp=sharing](https://drive.google.com/drive/folders/1mFAiIy3AEfhu_Pz5RcmotSxliuCVcc-?usp=sharing)

Two main worksheets / support docs:

1. Work within SOL support docs ( w/ \*most\* non-GEA SOL removed):
  - Reading – 2017-english-sol\_EssentializationCoding.docx
  - Math – 2016-math-sol\_EssentializationCoding.docx
  - Science – 2018-science-sol\_EssentializationCoding.docx
2. Copy-Paste SOL into SCORE Worksheet:
  - SCOREWorksheet.docx

55

---



---



---



---



---



---



---

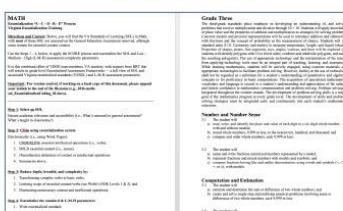


---



---

**1. Work within SOL support docs ( w/ \*most\* non-GEA SOL removed):**



56

---



---



---



---



---



---



---



---



---

**2. Copy-Paste SOL into SCORE Worksheet:**



57

---



---



---



---



---



---



---



---



---

19

11/7/22

**Google Forms → EAF**

- Use *after* completing SCORE process
- Select — Content Area > Grade > Strand > Standard > (Substandard)
- Google Forms will auto-populate EAF for Reading, Math, & Science
- Forms: [https://docs.google.com/forms/d/1Cz1DwH1TfBElMqNv\\_1771Skvnd4AICtGJd3h3m8g](https://docs.google.com/forms/d/1Cz1DwH1TfBElMqNv_1771Skvnd4AICtGJd3h3m8g)



58

---



---



---



---



---



---



---



---

### Discussion, Content-area Training (7-23), & Training Wrap-up



59

---



---



---



---



---



---



---



---

### Between Now and 7-23

1. SCORE 1-2 SOL in each content area, incl entering VESOL and L-M-H parameters into Google Forms.
2. Email questions to Shawn / JT (see next slide).
3. Consider areas in which the training might be adjusted / improved for the next Subject Specific Training on 7-23.



60

---



---



---



---



---



---



---



---

20

11/7/22



---

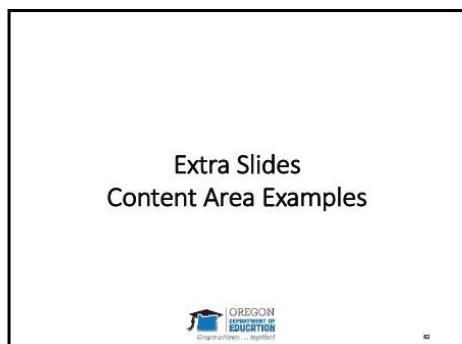
---

---

---

---

---



---

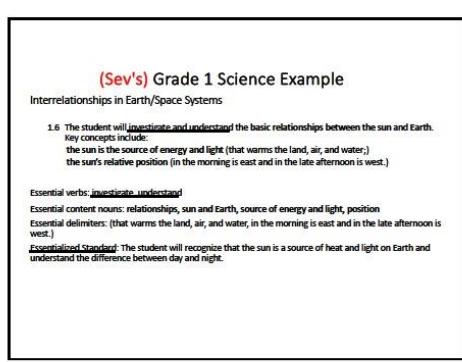
---

---

---

---

---



---

---

---

---

---

---

11/7/22

**(JT's) Grade 1 Math Example**

Number and Number Sense

1.1 The student will

- ~~count~~ forward orally by ones to 110, (starting at any number between 0 and 110);
- ~~write~~ the numerals 0 to 110 (in sequence and out-of-sequence);
- ~~count~~ backward orally by ones (when given any number between 1 and 30); and
- ~~count~~ forward orally by ones, twos, fives, and tens (to determine the total number of objects) to 110.

Essential verbs of **number** and **number sense** include **count**, **write**, **determine**.

Essential content nouns of **number** and **number sense** include ones, 110, numerals, 0, 1, 30, number, objects

Essential adjectives of **number** and **number sense** include the following: starting at any number between 0 and 110, in sequence and out-of-sequence, backward orally by ones when given any number between, forward orally by ones, twos, fives, and tens)

**Essentialized Standard:** The student will identify a number in a sequence.

---



---



---



---



---



---



---



---



---

64

**(Joe's) Grade 2 Math Example**

•Step 1: Select a standard  
Ensure academic relevance and accessibility (i.e., what's taught?)

Grade 2 Number and Number Sense

2.2 The student will:

a) count forward by twos, fives, and tens to 120, starting at the various multiples of 2, 5, or 10;  
b) count backward by tens from 120; and  
c) use objects to determine whether a number is even or odd.

---



---



---



---



---



---



---



---



---

65

**(JT's) Grade 1 Math Example**

Number and Number Sense

1.1 The student will

- ~~count~~ forward orally by ones to 110, (starting at any number between 0 and 110);
- ~~write~~ the numerals 0 to 110 (in sequence and out-of-sequence);
- ~~count~~ backward orally by ones (when given any number between) 1 and 30, and
- ~~count~~ forward orally by ones, twos, fives, and tens (to determine the total number of objects) to 110.

**TASK:** On page two of your worksheet, Code the given standard using the essentialization process: **bold content nouns**, **underline verbs**, and put (d elimiters in parentheses). Use the example above as a guide.

---



---



---



---



---



---



---



---



---

66

11/7/22

**(Joe's) Grade 2 Math Example: Coded**

**Step 2 (CO)**  
Code the standard using the essentialization process: bold content, underline verbs, and put (delimiters in parentheses).

Grade 2 Number and Number Sense  
2.2 The student will:  
a) count forward by two, fives, and tens (to 120, starting at the various multiples of 2, 5, or 10);  
b) count backward by tens (from 120) and;  
c) use objects to determine (whether a number is even or odd.)

67

---



---



---



---



---



---



---



---

**(JT's) Grade 1 Math Example**

1.1 The student will:  
• count forward orally by ones to 110, starting at any number between 0 and 110;  
• count numerals to 110 (in sequence and out-of-sequence);  
• count backward orally by ones (when given any number between 1 and 30); and  
• count forward orally by ones, two, fives, and tens (to determine the total number of objects) to 110.

Essential verbs of number and number sense include: count, write, determine  
Essential nouns of number and number sense include: ones, 110, numerals, 0, 1, 30, number, objects  
Essential delimiters of number and number sense include the following: starting at any number between 0 and 110, in sequence and out-of-sequence; backward orally by ones when given any number between, forward orally by ones, two, five, and tens

TASK: On page three of your worksheet, begin to Reduce depth, breadth, and complexity (RDBC) of the given standard by listing the essential verbs, nouns, and delimiters. Use the example above as a guide.

68

---



---



---



---



---



---



---



---

**(Joe's) Grade 2 Math Example**

Grade 2 Number and Number Sense  
2.2 The student will:  
a) count forward by two, fives, and tens (to 120, starting at the various multiples of 2, 5, or 10);  
b) count backward by tens (from 120) and;  
c) use objects to determine (whether a number is even or odd.)

Essential verbs of number and number sense include: count, starting, determine  
Essential nouns of number and number sense include: twos, fives, tens, 120, multiples, objects, number  
Essential delimiters of number and number sense include: to 120, starting at various multiples of 2, 5, or 10, from 120, whether a number is even or odd.

69

---



---



---



---



---



---



---



---

23

11/7/22

**(JT's) Grade 1 Math Example**

**Example Grade 1:**

*Essential verbs of number and number sense include count, write, determine*

*Essential nouns of number and number sense include ones, 110, numerals, 0, 1, 30, number, objects*

*Essential delimiters of number and number sense include the following: starting at any number between 0 and 110, in sequence and out-of-sequence, backward orally by ones when given any number between, forward orally by ones, twos, fives, and tens*

**Essentialized Standard:** The student will identify a number in a sequence.

**TASK:** On page four of your worksheet, use the essential verbs, nouns, and delimiters to Essentialize the standard. Use the example above as a guide.

70

---



---



---



---



---



---



---



---



---

**(Joe's) Grade 2 Math Example**

**Grade 2 Number and Number Sense**

**2.2 The student will:**

a) *count* forward by twos, fives, and tens (to 120, starting at the various multiples of 2, 5, or 10);  
 b) *count* backward by tens (from 120) and;  
 c) use objects to *determine* (whether a number is even or odd.)

*Essential verbs of number and number sense include: count, starting, determine*

*Essential nouns of number and number sense include: twos, fives, tens, 120, multiples, objects, number*

*Essential delimiters of number and number sense include: to 120, starting at various multiples of 2, 5, or 10, from 120, whether a number is even or odd.*

**Essentialized Standard:** The student will recognize similarly grouped objects.

71

---



---



---



---



---



---



---



---



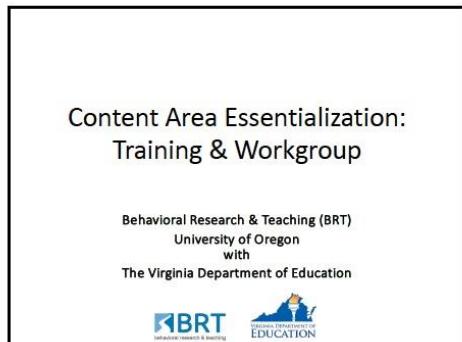
---

24

## **Appendix 1.B.2**

### **Content Area Essentialization — Training Slides**

11/7/22



1

---

---

---

---

---

---



2

---

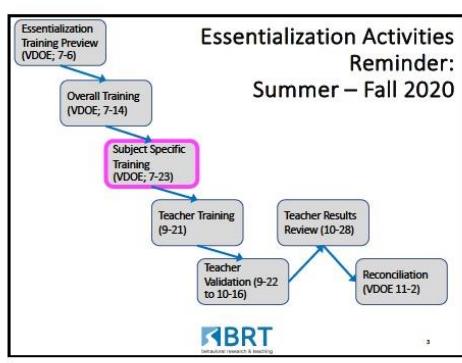
---

---

---

---

---



3

---

---

---

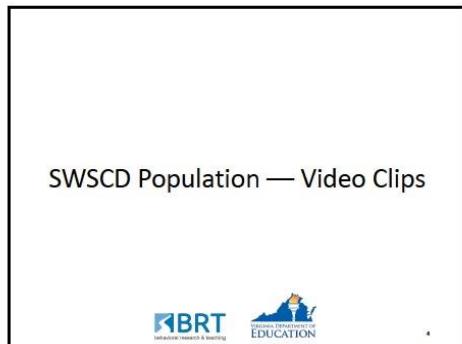
---

---

---

1

11/7/22



4

---

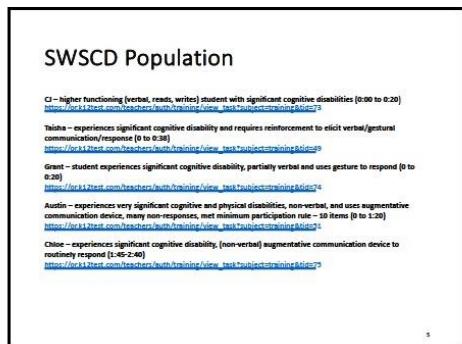
---

---

---

---

---



5

---

---

---

---

---

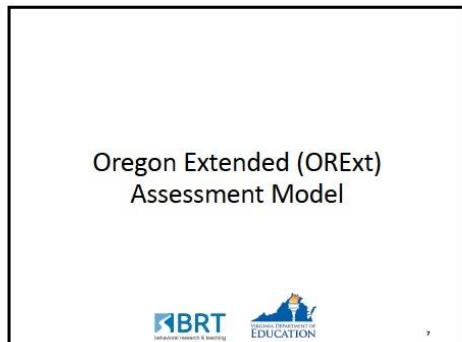
---

Eligibility Codes List									
I - 10 Intellectual Disability (ID)									
• 20 Hearing Impairment (HI)									
• 30 Visual Impairment (VI)									
• 45 Disabilities (DI)									
• 46 Developmental Delay (DD)									
• 60 Emotional Disturbance (ED)									
• 61 Traumatic Brain Injury (TBI)									
• 62 Other Health Impairment (OHI)									
• 63 Specific Learning Disability (SLD)									
• 64 Speech Language Impairment (SLI)									
• 65 Other Exceptionality (OE)									
The students identified as exceptional in the ORExt were students with Intellectual Disability (ID) ranging from about 82% to 85% across grade and content areas; students with Autism Spectrum Disorder (ASD) 20% to 27%, followed by students with OHI, Health Impairment (OHI, 8% to 18%), ODE, policy for 20% to 23% and SLI 10% to 12%. The proportion of ORExt to total students was highest in the content areas, as evidenced by the first row with each column displayed in the table.									

Table 01: Disability Proportions													
Grade Content	1st	2nd	3rd	4th	5th	6th	7th	8th	9th				
1 ELA	0.00	0.71	0.39	0.11	0.01	5.09	2.71	1.27	17.00	8.18	7.61	0.00	
2 ELA	0.00	0.31	0.24	0.42	0.11	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
3 ELA	0.00	0.21	0.18	0.21	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
4 ELA	0.00	0.16	0.14	0.16	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
5 ELA	0.00	0.10	0.08	0.10	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
6 ELA	0.00	0.06	0.05	0.06	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
7 ELA	0.00	0.04	0.03	0.04	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
8 ELA	0.00	0.03	0.02	0.03	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
9 ELA	0.00	0.02	0.01	0.02	0.01	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
10 ELA	0.00	0.01	0.00	0.01	0.00	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
11 ELA	0.00	0.00	0.00	0.00	0.00	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
12 ELA	0.00	0.00	0.00	0.00	0.00	5.19	2.30	1.25	16.39	8.14	2.51	0.00	
1 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
2 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
3 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
4 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
5 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
6 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
7 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
8 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
9 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
10 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
11 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
12 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
1 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
2 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
3 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
4 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
5 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
6 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
7 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
8 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
9 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
10 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
11 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
12 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
1 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
2 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
3 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
4 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
5 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
6 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
7 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
8 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
9 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
10 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
11 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
12 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
1 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
2 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
3 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
4 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
5 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
6 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
7 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
8 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
9 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
10 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
11 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
12 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
1 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
2 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
3 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
4 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
5 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
6 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
7 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
8 ELA	0.00	0.67	0.63	0.85	0.00	2.33	2.11	2.75	2.85	8.30	22.98	2.54	0.00
9 ELA	0.00	0.67	0.63	0.85	0.00								

11/7/22



7

---

---

---

---

---

### ORExt Grade 4 Math Example: EAF — CCSS to ESS to LMH

CODE	Content Area	Domain	Cluster	Standard [1-10]	Sub-Standards (e.g.)	Essentialized Std	U/M/H
MIDANOF 1.1	Math	Num & Ops— Fractions	1. Extend understanding of fraction equivalence and ordering.	1. Explain why a fraction $a/b$ is equivalent to a fraction $(n \times a)/(n \times b)$ by comparing the two fractions using visual fraction models. Focus attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	None	Divide numbers in 1/2 or 1/4 with numbers 1, 2, and 4. M+ divide objects in 1/2 with numbers 1, 2, and 4. H+ divide objects in 1/4 with numbers 1, 2, and 4.	L+ divide objects in 1/2 with numbers 1, 2, and 4. M+ divide objects in 1/4 with numbers 1, 2, and 4. H+ divide objects in 1/4 with 1, 2, and 4.

8

---

---

---

---

---

**ORExt Math Example:  
LMH to Items  
(Low  
Complexity  
Item)**

Low Level: MIDANOF 1.1.01  
Parameters from OR\_EAF: L - divide objects in 1/2 with numbers 1, 2 and 4.  
Diff: 0.67

**Scoring Protocol**

Item 27	Options:	A	B	C	Correct	Scoring (0/1)
1. Two boys are sharing an apple. (Point) One boy gets 1/2 of the apple. If they divide the apple in half, how much does each boy get? (1/2 an apple, 1 apple, 2 apples?)	1/2	1	2	x		

Scoring 0 = incorrect, 1 = correct

**Student Materials**

Item 27  
If they divide the apple in half, how much does each boy get?

1/2      1      2

9

---

---

---

---

---

3

11/7/22

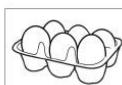
**Medium Items, Medium L.S., M6S**  
Parameters from OR, EAFs; M - divide objects in 1/2 with numbers 6, 8, and 10.  
**Dif = 0.84**

**Scoring Protocol**

Item #3  
M: There are 6 eggs in the carton.  
(Have to student materials.) If we share the eggs equally among 2 people, how many get 2 eggs, 4 eggs, or 6 eggs?  
A      B      C      Correct      Scoring (0/2)

Student Materials

If we divide the eggs in half, how many do we each get?



3      4      6

10

---



---



---



---



---



---



---



---

**High Items, Medium L.S., H4S**  
Parameters from OR, EAFs; H - divide numbers in 1/4 with 1, 4, and 8.  
**Dif = 1.73**

**Scoring Protocol**

Item #8  
H: How many 8 marbles? (Have to student materials.) If four boys divide the marbles evenly, how many will each boy get? 2 marbles, 4 marbles, or 8 marbles?  
A      B      C      Correct      Scoring (0/2)

Student Materials

If four boys divide the marbles evenly, how many will each boy get?



2      4      8

11

---



---



---



---



---



---



---



---

**Achievement Level Descriptors (ALDs): Standards-driven Description of Performance on the ORExt**

**Grade 3 Mathematics ALDs**

Content Area	Domain	Level 1	Level 2	Level 3	Level 4
Math	Operations and Algebraic Thinking	In grade-level context reduced in depth, breadth, and complexity, the student demonstrates limited to no performance when presented with items that ask them to: <ul style="list-style-type: none"> <li>identify products of whole numbers;</li> <li>perform division problems using grouping strategies;</li> <li>solve word problems involving addition and multiplication.</li> </ul>	In grade-level context reduced in depth, breadth, and complexity, the student demonstrates inconsistent or partial performance when presented with items that ask them to: <ul style="list-style-type: none"> <li>identify a product of two-number groups (1-9) by (1-3);</li> <li>perform division problems using grouping strategies with two groups of 2-3;</li> <li>solve word problems involving addition and multiplication of 1-10.</li> </ul>	In grade-level context reduced in depth, breadth, and complexity, the student demonstrates proficient performance when presented with items that ask them to: <ul style="list-style-type: none"> <li>identify a product of three-number groups (3-4) by (1-5);</li> <li>perform division problems using grouping strategies with two groups of 4-5;</li> <li>solve word problems involving addition and multiplication of (3-5) by (5-9).</li> </ul>	In grade-level context reduced in depth, breadth, and complexity, the student demonstrates superior proficiency performance when presented with items that ask them to: <ul style="list-style-type: none"> <li>identify a product of four-number groups (3-4) by (2-5);</li> <li>perform division problems using grouping strategies with three groups of 4-5;</li> <li>solve word problems involving addition and multiplication of (3-5) by (2-4).</li> </ul>

12

---



---



---



---



---



---



---



---

11/7/22

<b>Annual Measurable Objectives (AMOs): Accessibility of Alternate Standards / Assessment Items is Crucial</b>																																							
<small>Annual Measurable Objective (AMO) achievement may influence how students perform on alternate assessments. The AMO is the vertical axis along Block reading. Overall results are kept consistent with 2017 MCAS results. The horizontal axis shows the percentage of students who did not meet the standard with additional categories added to show achievement proficiency curves produced in various areas. The data visualization presented below were developed by the Massachusetts Department of Education.</small>																																							
<small>Table 7: English Language Arts Proficiency By Grade</small>																																							
<table border="1"> <thead> <tr> <th>Grade</th> <th>AMO Level 1</th> <th>AMO Level 2</th> <th>AMO Level 3</th> <th>AMO Level 4</th> </tr> </thead> <tbody> <tr><td>2nd-4</td><td>28</td><td>52</td><td>26</td><td>10</td></tr> <tr><td>5th-7</td><td>25</td><td>49</td><td>26</td><td>10</td></tr> <tr><td>8th-10</td><td>28</td><td>29</td><td>25</td><td>28</td></tr> <tr><td>11th-12</td><td>28</td><td>29</td><td>11</td><td>37</td></tr> <tr><td>11-12</td><td>22</td><td>28</td><td>12</td><td>37</td></tr> </tbody> </table>					Grade	AMO Level 1	AMO Level 2	AMO Level 3	AMO Level 4	2nd-4	28	52	26	10	5th-7	25	49	26	10	8th-10	28	29	25	28	11th-12	28	29	11	37	11-12	22	28	12	37					
Grade	AMO Level 1	AMO Level 2	AMO Level 3	AMO Level 4																																			
2nd-4	28	52	26	10																																			
5th-7	25	49	26	10																																			
8th-10	28	29	25	28																																			
11th-12	28	29	11	37																																			
11-12	22	28	12	37																																			
<small>Table 8: Math Proficiency By Grade</small>																																							
<table border="1"> <thead> <tr> <th>Grade</th> <th>AMO Level 1</th> <th>AMO Level 2</th> <th>AMO Level 3</th> <th>AMO Level 4</th> </tr> </thead> <tbody> <tr><td>2nd-4</td><td>12</td><td>18</td><td>26</td><td>9</td></tr> <tr><td>5th-7</td><td>15</td><td>48</td><td>35</td><td>10</td></tr> <tr><td>8th-10</td><td>21</td><td>16</td><td>35</td><td>8</td></tr> <tr><td>11th-12</td><td>20</td><td>7</td><td>36</td><td>1</td></tr> <tr><td>11-12</td><td>18</td><td>16</td><td>38</td><td>1</td></tr> <tr><td>11-12</td><td>18</td><td>20</td><td>30</td><td>21</td></tr> </tbody> </table>					Grade	AMO Level 1	AMO Level 2	AMO Level 3	AMO Level 4	2nd-4	12	18	26	9	5th-7	15	48	35	10	8th-10	21	16	35	8	11th-12	20	7	36	1	11-12	18	16	38	1	11-12	18	20	30	21
Grade	AMO Level 1	AMO Level 2	AMO Level 3	AMO Level 4																																			
2nd-4	12	18	26	9																																			
5th-7	15	48	35	10																																			
8th-10	21	16	35	8																																			
11th-12	20	7	36	1																																			
11-12	18	16	38	1																																			
11-12	18	20	30	21																																			
<small>Legend:</small>																																							
<small>Level 1: Students demonstrate conceptual knowledge and skills related to successfully meeting the standard.</small>																																							
<small>Level 2: Students demonstrate understanding and skills related to meeting the standard.</small>																																							
<small>Level 3: Students demonstrate understanding and skills related to meeting the standard.</small>																																							
<small>Level 4: Students demonstrate understanding and skills related to meeting the standard.</small>																																							
<small>Level 5: Students demonstrate an ability to use memory of knowledge and skills recursive information to fully meet the standard.</small>																																							

13



14

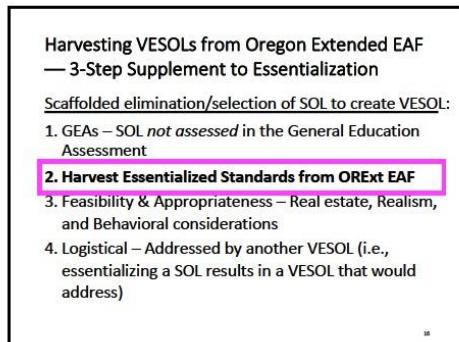
<b>EAF: Reading Example from Oregon – Coverage/Linkage to Original CCSS</b>				
Grade	CCSS	Essentialized	Addressed Another	% CCSS Covered
3	72	29	17	64%
4	67	30	13	64%
5	65	28	12	62%
6	61	25	9	56%
7	58	25	13	66%
8	60	26	8	57%
11-12	56	25	12	66%

Overall Goal — Roughly 15-25 operational VESOL per grade in each content area (Writing an exception).  
Q: How do we get there...?  
A: Harvesting already-essentialized standards from the ORExit, supplemented by essentialized SOL as necessary

15

5

11/7/22




---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

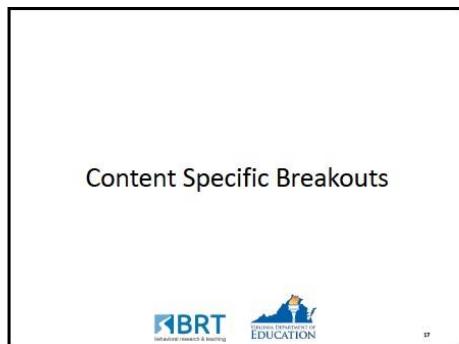


---



---

16




---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

17




---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

18

11/7/22

### Identify SOL to Essentialize

- **Real estate consideration:** Multiple items per standard are needed to accurately reflect mastery. With a 30-item test, selecting specific SOL, merging like SOL, and summarizing SOL allow for multiple items per standard. For example, Reading 3.5d ‘Compare and contrast settings, characters, and plot events’ is specifically addressed in 3.5e-j. These SOL components can be essentialized into one VESOL with specifics (plot, narrator, and questions about the story) used to guide item writing.
- **Realism consideration for this population:** What is realistic for SWSCD and what is taught in the classroom. For example, the use of homophones (Reading 3.4a) requires higher level thinking and may not be appropriate.
- **Behavior consideration for this population:** Accessibility is crucial for SWSCD. SOL that specify behaviors such as speaking or writing, etc. should not be used. For example, Reading 3.1, and 3.2 ‘Communication and Multimodal Literacies’ should not be essentialized (and are not assessed in the general assessment).

18

---



---



---



---



---



---



---



---



---

19

### Breakout Tasks

Over the next ~2 hours:

1. Review Prior Essentialization Work
2. Review SOL document (and count of standards)
3. Review OR Extended standards to maximize selection of existing OR items
4. Highlight standards to essentialize (not bendable from OR) across all grades by considering main word and lettered substandards (trying to get 2-5 in each standard) using
  - a. Real estate and sequence
  - b. Realism principle
  - c. Behavior needed
5. Select 3 grade pairs to essentialize (e.g., Grades 3-4, 5-6, 7-8)
6. Compare SOL, EAF, & VESOL
7. Develop a plan to complete VESOLs with
  - a. Subteams to split the workload
  - b. Timelines for weekly submission
8. Breakdown of Work Flow: Big Ideas and Take-aways with Support (and Deadlines)

19

---



---



---



---



---



---



---



---



---

20

### Sample Completion Plan & Workflow

For example, ELA has 200 standards (and substandards) and after highlighting 10 per grade level, that leaves 7 grades for 70 standards. With a team of 5 people (including the lead), a number of strategies could be deployed for step 7 above

- **Split grade level:** Two teams of 2 with the team leader collecting/reviewing the work and submitting weekly. This would mean  $70/2 = 35$  standards for each team with 10 submitted per week.
- **Split by standard:** Use the same two teams of two with one team completing word analysis and vocabulary while other team completes comprehension (fiction and nonfiction).
- **Split by individuals:** One team of four meeting to calibrate on one standard and one grade, then individually completing the essentialization process (a) split by grade level or (b) split by standard.

21

---



---



---



---



---



---



---



---



---

21

11/7/22

## Team Report Out & Wrap-up



22

---

---

---

---

---

---

## Between Now and 8-14

1. Follow Team Completion & Workflow Plan to Complete Essentialization & VESOL Development
2. BRT Team Contacts
  - **Reading/Writing:** JT ([jgeraldt@uoregon.edu](mailto:jgeraldt@uoregon.edu)) & Sev ([sstindal@uoregon.edu](mailto:sstindal@uoregon.edu))
  - **Math:** Joe ([jswineha@uoregon.edu](mailto:jswineha@uoregon.edu)) & Brock ([brockr@uoregon.edu](mailto:brockr@uoregon.edu))
  - **Science:** Shawn ([pjirvin@uoregon.edu](mailto:pjirvin@uoregon.edu))

23

---

---

---

---

---

---

Thank you!!



24

---

---

---

---

---

---

### **Appendix 3.A.1**

#### **Special Education (SPED) Teacher Review & Validation — Study Participants**

Current Position: Assigned to: 2022;	Grade(s) and Content Area(s) Assigned in 2020	Grade(s) and Content Area(s) Assigned in 2019	Teaching Experience with Students with Significant Cognitive Disabilities:	Degree(s) Earned:	Highly Certified(s) or Endorsed(s):	Gender:	Race/Ethnicity:	Please provide a brief statement highlighting your expertise in teaching academic content to students with significant cognitive disabilities.	
Severe Disabilities Teacher	K-6 – all content areas	K-6 – all content areas	13 years of experience in adapted curriculum, 11 years at HS level, most recent, 2 years at Elementary level	Undergraduate - BS Rehabilitation Education, Wright State University, Master's Degree - MS Rehabilitation Counseling, Illinois Institute of Technology, 1991	Virginia Department of Professional Licensure, Severe Disabilities K-12	Female	No	White	I have taught adapted curriculum in a self contained setting (all content areas) for my entire teaching career, starting in 2007. My work was in a high school setting for the first 11 years. This will be my third year at the elementary level. I enjoy the challenge of adapting materials and making them accessible to my students. I have worked as a VAAP scorer in my home county. Thank you for this interesting opportunity.
Multiple Disabilities Teacher	3rd-Reading, Math / 5th Math, Science, Social Studies	3rd-Reading, Math / 4th Math, Science, Social Studies	18 years teaching Significant Cognitive Disabilities, 29 years teaching SPED total	Bachelors Degree	Intellectual Disabilities K-12; Emotional Disturbance K-12; Learning Disabilities K-12	Female	No	White	I have used various student specific techniques to teach reading, math, social studies, and science skills in a practical setting. Academic content should not be taught in isolation and should be taught using multiple modalities.
Teacher	6-12 Science and History	6-12 Science and History	15	Social Science (Focus in Psychology), Philosophy	Intellectual Disabilities K-12	Male	No	White	I have worked in an educational capacity with SEDP since 2003, during which I developed and implemented lessons in all content areas. I have been involved in the development of the VESOL program and am currently working on a committee to develop the new VESOL.
Special Education Teacher	3-4, All content areas	3-4, All content areas	5	Bachelors of Arts and Science – Special Education, Elementary Education, Masters of Special Education	Special Education General Curriculum K-12; Special Education-Adapted Curriculum K-12; Elementary Education PK-4; English 6-8	Female	No	White	I have many students who are specifically identified with SEDP. While in my job in Washington County, I spearheaded a team for my students. They made the tea, delivered the tea, accepted the money and made change for teachers. While in Newport News, I learned in depth about Assistive Technology and different PT devices such as a G-Tube, a wheelchair lift, a power chair, a power lift, a power toilet, a power bed, a power chair lift, a power shower, a power building. I also assisted in teaching two children to eat by mouth versus only having a G-Tube fed meals. I currently am entering my third year at LES teaching students with cognitive disabilities, while at this school I have been using an ABLLS system to teach them how to do things independently. I am also using the VESOL to assist in my teaching. I also assist in reading at AT Team in Russell County along with running the CATS At Loan Library.
SPED AUT Teacher	K-6 reading, writing, science, social studies, language arts	K-6 math, reading, science, social studies, language arts	22 years- CHA, AUT, SLSD, MD, ID (primarily AUT)	Autism Certification (2016 ODU); K-12 Special Education MD, AUT, SLSD, ID, OH (2005, ODU)	Autism Certification (2016 ODU); K-12 Special Education MD, AUT, SLSD, ID, OH (2005, ODU)	Female	No	White	I feel my expertise would be to create assignments from the SOC curriculum based on how the student learns best. I use visual, reward (or make sure there are less words) when presenting lessons that are not on their reading level, and break down information to ensure student comprehension.
Adapted Curriculum Special Education Teacher	9-12 English, History, Vocational, Life Skills	9-12 English, History, Vocational, Life Skills	10 years	Master's Degree Special Education K-12	Collage Professional License K-6	Female	No	White	In 2003 I began teaching adapted curriculum special ed at the elementary level. At that placement taught all students and received Value for each subject and grade. Then in 2014 I was asked to move up to the high school level and that is where I have been ever since. I teach English, history, vocational, and life skills. My main VAAP focus is English, writing, and history. I love that I was able to start some of my kids education from the time that I'm at the high school level. I am able to work with students who have cognitive disabilities and provide them with productive choices. These choices ensure the daily order their regimens, personality, and desire to do good things.
Special Education Teacher	9-12 Post- High School Continued Adjusted education	9-12 Post- High School Continued Adjusted education	3	Bachelor's degree in Special Education K-12 and elementary education K-6	Endorsement in Middle School Social Studies	Female	No	White	This is my fourth year working in the adapted curriculum classroom at my school. I have been completing VAAPs in all subject areas for my eleventh grade students since my first year in the classroom. I am also working on my master's degree in special education adapted curriculum k-12.
Community Based Instruction Teacher	6-8, Reading, Writing, Math, Science, Social Studies	6-8, Reading, Writing, Math, Science, Social Studies	7	Bachelor's in K-12 General Curriculum and Masters of K-12 Special Education	About to begin working toward my Adapted Certificate	Female	No	White	I have worked for 6 years in a 6-8 Multiple Disabilities self-contained classroom. I currently am teaching in a 6-8th Community Based Instruction adapted classroom. I have worked with Autism, Multiple Disabilities, Other Health Impairments, Hearing Impairments, Visual Impairments, Speech and Language Impairments, and multiple other disabilities.
Special Ed Teacher (self- contained)	9-12 students/ self-contained all subjects	9-12 students/ self-contained all subjects	12	Masters Degree	Severe/Modified	Female	No	White	I am currently using the NCY curriculum that allows access to all academic areas at all levels of ability. Finding a cohesive educational curriculum for my class has been difficult in the past. I used textbooks I borrowed from our resource teachers and activities, video, etc. from the internet.
Self-Contained Special Education Teacher	5th-8th grades	5th-8th grades	28 years	Masters Degree		Female	No	White	Throughout the past twenty-eight years teaching students with significant cognitive disabilities I have provided differentiated instruction, visual supports, and behavioral supports for my students to ensure their access to the curriculum. I have also incorporated the use of the school's facilities to provide additional opportunities for hands on science, math, and reading activities along with instruction.
Learning Support Special Education Teacher	K-1, 2, 3 All content areas	K-1, 2, 3 All content areas	Starting my 15th year	Masters in Education- Special Education	K-12 Special Education	Female	No	White	I have taught students with significant cognitive disabilities for over 10 years. I have completed CCES for VAAP almost every year. I have taught students with significant cognitive disabilities in a self-contained classroom, in a general education classroom, and in all instructional levels and in multiple grade levels across subject areas. I differentiated my curriculum, work activities, etc. based on student needs.
Special Education Instruction Specialist	All	All	18	BS in Psychology, MEd in Educational Administration	Special Education Certification, Middle School Mathematics, Educational Administration	Female	No	White	I have taught and/or worked with students with significant cognitive disabilities for 18 years. For the last 11 years, I have been a special education instructional specialist and worked with a wide range of students from Preschool to Post High. I adapt curriculum and modify it for them to access their educational needs within the general education and special education classrooms. I have been providing training for VAAP's T7/TAC for the region and have gotten to then expand my knowledge and skills to help others in the region. I am currently working with the state to help our staff have significant cognitive disabilities for instruction and assessment while helping problem solve assistive technology.
Special Education Teacher	Grades 3-5; Reading, Writing, Math, Science	Grades 3-5; Reading, Writing, Math, Science	25 years	Master's in Special Education	LD/YD/QD/ID Pre-K-12 Special Education/Pre-K-6 Grade General Education	Female	No	White	I teach content area subjects based on the Goals and Objectives within the IDE. All goals are taught on a detailed individual level. I also teach all subjects through VAAP curriculum. I have taught and assessed through the VAAP since the first year that the VDOE implemented it across schools in Virginia.
Special Education Teacher	9-12 Functional Academics (Reading, Writing, Science, Social Science, Mathematics)	9-12 Functional Academics (Reading, Writing, Science, Social Science, Mathematics)	18 years	Bachelor of Science in Mass Communication with concentration in Electronic Media and Broadcast Studies; Bachelor of Science in Education with Concentration in Severe Disabilities, Multiple Disabilities, and Adapted Curriculum; Post baccalaureate certificate in Autism Spectrum Disorders	Adapted Curriculum, Intellectual Disabilities, and Severe Disabilities	Female	No	Asian, White	I have worked in Special Education since 2002 in Virginia, and I have been working with ASOKA and the VAAP since 2004. Every year is different, and every student is different. I'm hoping that the experiences I've had in the 18 years I have worked with students with disabilities will be beneficial in the VESOL Validation process. I look forward to it!
Sped Teacher	Grades 6-8 Functional Academics	Grades 6-8 Functional Academics	25 years	BA in Ed.; BA in Elementary Ed.; MA in School Administration	Adm & Supr Pre-K-12 central office only Elementary Ed.; MA Pre-K-12 Special Ed. General Curriculum K-12	Female	No	White	I have taught and/or supervised teachers teaching students with significant disabilities for the last 25 years. I have adapted curriculum, use of technology to meet individual learner needs.
Special Education Coordinator	K-12	K-12	14 years administrative work with Sig Cog Disabilities	BA, M.Ed., ABD	Adm/Supervision, PK-4, A- 6, Algebra 1, Hearing Impairment, Multiple Disabilities, Division Superintendent	Female	No	White	I have 14 years working as an administrator in a program serving students with significant cognitive disabilities. Specifically I served on the teams leading with developing eligibility, reviewing eligibilities, and developing annual IFPs. During that time I also served as the Division Director of Testing for all state testing, including the VAAP. For the first 3 years of my tenure in that position I directly supervised the instructional programming for significant disabilities. For the next 4 years, I have worked as an administrator in a program serving students with significant cognitive disabilities. I have been a leader in the field of significant cognitive disabilities who work in separate day schools or residential placement. I serve as the STC for all separate school placements. In addition, I am the divisional coordinator for the VAAP office in Virginia and the northern states since 2009. I have attended many training events. Finally, I am in the process of taking over the leadership of our program for students with significant cognitive disabilities and will be fully over that programming for the 2021-2022 school year.
Functional Life Skills Teacher	6-8 (all content) 6-8 (all content)	6-8 (all content) 6-8 (all content)	9 years	EDS	Special Education K-12, Middle Grades English and Social Studies and Education Leadership K-12	Female	No	Black or African American	I have taught Functional Life Skills for the past 6 years in Virginia and 2 years previously in another state. I have been fortunate to be teaching students with significant cognitive disabilities in a self-contained setting. I have taught students with significant cognitive disabilities in a general education classroom. I have taught all content areas. I have incorporated visual supports, pictures, posters, sounds and audio just to name a few. My students have also been successfully in passing their VAAP yearly in each content area. In addition, I have taught functional life skills through a research based practices that can be used to enhance my knowledge of teaching students with significant cognitive disabilities.
Intensive Support Teacher	I-5	X-2	21	Bachelor of Science in Education with Concentration in Multiple Areas of Education and Human Development	Intellectual Disabilities (K- 12) P-12/SEED	Female	No	Black or African American	I have taught Functional Life Skills for the past 6 years. Through the years, my greatest delight has been to watch students learn and grow. I have taught all content areas in a self-contained setting using visual, auditory, tactile, and technology strategies to strengthen a student's weakness in a specific skill area.
Special Education Teacher	3rd-6th Reading, Math, Science, History, Writing	3rd-6th Reading, Math, Science, History, Writing	28	Bachelor's of Science	ID and certificate of Autism	Female	No	White	For the past 28 years I have worked with students who have had significant disabilities along with students who participated in SOL testing through the VDOE. The past 4 years I have worked exclusively with students with significant cognitive disabilities. I have taught all content areas in a self-contained setting. I have taught students with significant cognitive disabilities who work in separate day schools or residential placement. I serve as the STC for all separate school placements. In addition, I am the divisional coordinator for the VAAP office in Virginia and the northern states since 2009. I have attended many training events. Finally, I am in the process of taking over the leadership of our program for students with significant cognitive disabilities and will be fully over that programming for the 2021-2022 school year.
Special Education Teacher	Teachers Self Contained Math, K-6, Computer Literacy, Reading, Science, Math & Algebra 1, Geometry	Teachers Algebra & Computer Literacy, Reading, Science, Math & Algebra 1, Geometry	I have 4 years experience teaching students with severe cognitive disabilities for six years	B.S. Environmental Science; M.A. Special Education	Special Education - General Curriculum K-12	Female	No	White	I have taught academic content to students with significant cognitive disabilities by modifying their assignments and doing them in a teachable manner. I have had meaningful experiences in our classroom. In doing this, these students were able to be successful when they took part in the VAAP. I also teach students in the General Ed setting who have significant cognitive disabilities. I have taught all content areas. I have taught students with significant cognitive disabilities who work in separate day schools or residential placement. These students have been able to have meaningful classroom experiences, and have shown growth in their content knowledge.
Special Education Teacher	9th, 10th, 11th, 12th Various subjects	9th, 10th, 11th, 12th	Name taught with students with significant cognitive disabilities for six years	Psychology with a Specialization in mental health administration	Provisional License	Female	No	Black or African American	I engage students interactively with various technology for fun learning.
Special Education Teacher	12th-Past Graduate Career Preparation	4	2	Adapted Curriculum K-12	Male	No	White	I have worked on VAAP content for two of my four years teaching.	
Education Specialist	1st-12+	All content areas	13 years (6 teacher, 7 education specialist)	Master of Science in Education (Special Ed, Adolescence and Young Adults), Master of Education (Curriculum and Instruction- Reading)	Special Education- Adapted Curriculum, K-12, Pre-K-12 Administration and Supervision	Female	No	White	I taught students with significant cognitive disabilities (MD model) for 4 years teaching from grades 1-12 and have also supervised teachers who work with the most populations and grade levels for 7 years. I have worked with the SEED program over this time (SEED REACH) and we support students living in a residential setting and hospital setting. I have taught all content areas, but have a passion for literacy instruction and supporting communication needs of students. I have worked with students with significant cognitive disabilities in a self-contained setting for this population and have also presented with TTEC-GSB on the topic of teaching this population.
Special Education Teacher	6-8 Applied Math, Reading, Science, Social Studies	6-8 Applied Math, Reading, Science, Social Studies	54	Math-Special Education Cross Content	Special Education K-12	Female	No	White	This is my 15th school year working with students with Autism in a self-contained setting. I teach all their Applied / Functional Skill core classes (Math, Reading, Science, Social Studies). I focus on embedding Peer centered communication and social skills into our school day.
Special Education Teacher- Intellectual Disabilities	Grades 3-5 all subjects	Grades 3-5 all subjects	6	1st-Elementary and Special Education; Masters in Reading and Literacy	Elementary Preschool- Intermediate K-12; Intellectual Disabilities K-12; Specific Learning Disabilities K-12	Female	No	White	I have taught students with intellectual disabilities for over 20 years. My class originally was a 6-12 class, but for the last 2 years I have been a 6-12 class with 1-2 students doing both the Standards of Learning tests as well as the Virginia Alternative Assessment Program. Since I am certified in Elementary Education and previously taught general education for ten years before moving into special education, I have direct knowledge of the standards of learning for various grade levels. My focus is on differentiating instruction for my students with significant cognitive disabilities with various strategies, tailored to each student's need.

### **Appendix 3.B.1**

#### **Special Education (SPED) Teacher Review & Validation Study — Training Slides**

9/20/20

Virginia Essentialized Standards of Learning (VESOL):  
Teacher Review & Validation Study for the Virginia  
Alternate Assessment

Behavioral Research & Teaching (BRT)  
University of Oregon  
with  
The Virginia Department of Education

BRT  
behavioral research & teaching  
EDUCATION

---

---

---

---

---

---

**Agenda**

- Introduction (5 minutes)
- Student Population (5 minutes)
- Background & Context for Standards Essentialization in Virginia (5 minutes)
- Training Outcomes (1 minute)
- Essentialization Process (10 minutes)
- Essentialization Operationalized (10 minutes)
- Teacher Review & Validation Study (30 minutes)
  - Linkage
  - Accessibility
  - Appropriateness/Relevance
  - VESOL Improvement Recommendations
- Distributed Item Review (DIR) System (10 minutes)
- Teacher Study Overview & Timeline (5 minutes)

---

---

---

---

---

---

**Adult Learning & Best Practices**

- Quality professional development involves:
  - Real-world Relevance
  - Learning in a Social Context
  - Diverse Perspectives and Interests
  - Application (Practice) of Learned Knowledge & Skills
  - Constructive Feedback & Ongoing Support
- We aim to attend to these aspects today and during the study

---

---

---

---

---

---

9/20/20

## Our Student Population — Students with Significant Cognitive Disabilities (SWSCD) — Video Clips

---

---

---

---

---

---

---

## **Students with Significant Cognitive Disabilities (SWSCD) Population**

**C** – higher functioning (verbal, reads, writes) student with significant cognitive disability [0:00 to 0:20]  
<http://www.coreknowledgefound.org/ckf/standards/ckf-standards.html>

**Habs** – experiences significant cognitive disability and requires reinforcement to elicit verbal/gestural communication/response [0 to 0:36]  
<http://www.coreknowledgefound.org/ckf/standards/ckf-standards.html>

**Grant** – student experiences significant cognitive disability, partially verbal and uses gesture to respond [0 to 0:20]  
<http://www.coreknowledgefound.org/ckf/standards/ckf-standards.html>

**Austin** – experiences very significant cognitive and physical disabilities, non-verbal, and uses augmentative communication device, many non-responses, met minimum participation rule – 10 items [0 to 0:20]  
<http://www.coreknowledgefound.org/ckf/standards/ckf-standards.html>

**Okie** – experiences significant cognitive disability, (non-verbal) augmentative communication device to routinely respond [1:45-2:40]

---

---

---

---

---

---

---

SWSCD Primary  
Exceptionality  
Classification  
Statistics  
(Oregon 18-19):  
ID > ASD > OHI

Eligibility Codes List										
	Eligibility Codes									
	Eligibility Codes									
1	<b>Eligible Codes</b>									
2	<b>Eligible Codes</b>									
3	<b>Eligible Codes</b>									
4	<b>Eligible Codes</b>									
5	<b>Eligible Codes</b>									
6	<b>Eligible Codes</b>									
7	<b>Eligible Codes</b>									
8	<b>Eligible Codes</b>									
9	<b>Eligible Codes</b>									
10	<b>Eligible Codes</b>									
11	<b>Eligible Codes</b>									
12	<b>Eligible Codes</b>									
13	<b>Eligible Codes</b>									
14	<b>Eligible Codes</b>									
15	<b>Eligible Codes</b>									
16	<b>Eligible Codes</b>									
17	<b>Eligible Codes</b>									
18	<b>Eligible Codes</b>									
19	<b>Eligible Codes</b>									
20	<b>Eligible Codes</b>									
21	<b>Eligible Codes</b>									
22	<b>Eligible Codes</b>									
23	<b>Eligible Codes</b>									
24	<b>Eligible Codes</b>									
25	<b>Eligible Codes</b>									
26	<b>Eligible Codes</b>									
27	<b>Eligible Codes</b>									
28	<b>Eligible Codes</b>									
29	<b>Eligible Codes</b>									
30	<b>Eligible Codes</b>									
31	<b>Eligible Codes</b>									
32	<b>Eligible Codes</b>									
33	<b>Eligible Codes</b>									
34	<b>Eligible Codes</b>									
35	<b>Eligible Codes</b>									
36	<b>Eligible Codes</b>									
37	<b>Eligible Codes</b>									
38	<b>Eligible Codes</b>									
39	<b>Eligible Codes</b>									
40	<b>Eligible Codes</b>									
41	<b>Eligible Codes</b>									
42	<b>Eligible Codes</b>									
43	<b>Eligible Codes</b>									
44	<b>Eligible Codes</b>									
45	<b>Eligible Codes</b>									
46	<b>Eligible Codes</b>									
47	<b>Eligible Codes</b>									
48	<b>Eligible Codes</b>									
49	<b>Eligible Codes</b>									
50	<b>Eligible Codes</b>									
51	<b>Eligible Codes</b>									
52	<b>Eligible Codes</b>									
53	<b>Eligible Codes</b>									
54	<b>Eligible Codes</b>									
55	<b>Eligible Codes</b>									
56	<b>Eligible Codes</b>									
57	<b>Eligible Codes</b>									
58	<b>Eligible Codes</b>									
59	<b>Eligible Codes</b>									
60	<b>Eligible Codes</b>									
61	<b>Eligible Codes</b>									
62	<b>Eligible Codes</b>									
63	<b>Eligible Codes</b>									
64	<b>Eligible Codes</b>									
65	<b>Eligible Codes</b>									
66	<b>Eligible Codes</b>									
67	<b>Eligible Codes</b>									
68	<b>Eligible Codes</b>									
69	<b>Eligible Codes</b>									
70	<b>Eligible Codes</b>									
71	<b>Eligible Codes</b>									
72	<b>Eligible Codes</b>									
73	<b>Eligible Codes</b>									
74	<b>Eligible Codes</b>									
75	<b>Eligible Codes</b>									
76	<b>Eligible Codes</b>									
77	<b>Eligible Codes</b>									
78	<b>Eligible Codes</b>									
79	<b>Eligible Codes</b>									
80	<b>Eligible Codes</b>									
81	<b>Eligible Codes</b>									
82	<b>Eligible Codes</b>									
83	<b>Eligible Codes</b>									
84	<b>Eligible Codes</b>									
85	<b>Eligible Codes</b>									
86	<b>Eligible Codes</b>									
87	<b>Eligible Codes</b>									
88	<b>Eligible Codes</b>									
89	<b>Eligible Codes</b>									
90	<b>Eligible Codes</b>									
91	<b>Eligible Codes</b>									
92	<b>Eligible Codes</b>									
93	<b>Eligible Codes</b>									
94	<b>Eligible Codes</b>									
95	<b>Eligible Codes</b>									
96	<b>Eligible Codes</b>									
97	<b>Eligible Codes</b>									
98	<b>Eligible Codes</b>									
99	<b>Eligible Codes</b>									
100	<b>Eligible Codes</b>									
101	<b>Eligible Codes</b>									
102	<b>Eligible Codes</b>									
103	<b>Eligible Codes</b>									
104	<b>Eligible Codes</b>									
105	<b>Eligible Codes</b>									
106	<b>Eligible Codes</b>									
107	<b>Eligible Codes</b>									
108										

---

---

---

---

---

---

---

9/20/20

Background & Context for  
Standards of Learning (SOL)  
Essentialization in Virginia

---

---

---

---

---

**Standards of Learning (SOL) Essentialization in VA**

- Our focus is *academic* due to federal law — e.g., least-restrictive learning environment (LRE); Individuals with Disabilities Education Act (IDEA)
- Every child must access viable, diverse opportunities to learn grade-level content, especially content they must demonstrate progress toward reaching proficiency on
- Requires an integrated approach to making grade-level content accessible and assessible for students with the most significant disabilities
- Essentialization of general content standards helps make content accessible



---

---

---

---

---

**Standards of Learning (SOL) Essentialization in VA**

- The *essentialization process* was developed to help make assessment of VA's Standards of Learning (SOL) accessible and relevant for ~~students with~~ significant cognitive disabilities (SWSCD):
  - Grade-level academic content standards are reduced in depth, breadth, and complexity (RDBC)
  - Collaboration b/t VDOE, teachers, test developers, and researchers is critical to successfully building and implementing essentialized standards in Virginia
  - Virginia Essentialized Standards of Learning = VESOL

---

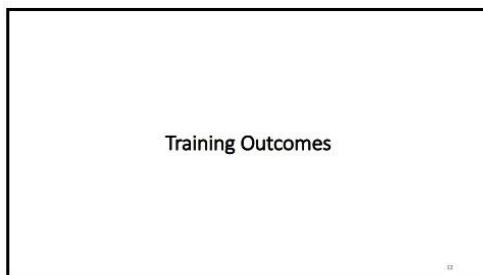
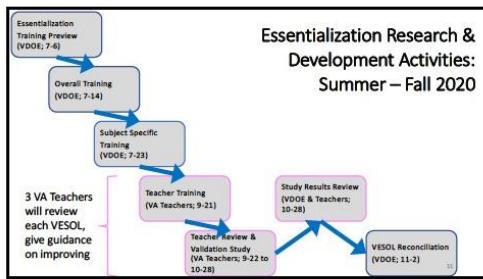
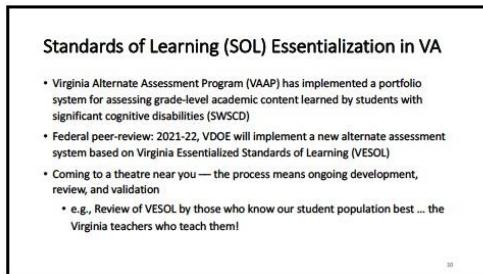
---

---

---

---

9/20/20



9/20/20

**Training Outcomes (3)**

1. **Essentialization Process** – Systematic reduction in the depth, breadth, and complexity (RDBC) of SOL to create new VESOL that are:

- Strongly linked to original grade-level academic content standards, and
- Accessible and appropriate/relevant for SWSCD

2. **Essentialization Operationalized** – Essentialized assessment frameworks (EAF), made up of SOL, VESOL, & Low – Med – High complexity boundaries that reflect ranges in performance demands (Reading/Writing, Math, & Science)

3. **Teacher Review & Validation Study** – Judgments about VESOL linkage, accessibility, and appropriateness/relevance using the Distributed Item Review (DIR)

13

---

---

---

---

---

---

**Essentialization Process**

(What we've done this summer)

14

---

---

---

---

---

---

**VA Standards of Learning (SOL):**  
Basis for SOL Assessment

<b>English Standards of Learning for Virginia Public Schools</b>  <a href="http://www.doe.virginia.gov/filing/hsstandards_dots/english/index.html">http://www.doe.virginia.gov/filing/hsstandards_dots/english/index.html</a>	<b>Mathematics Standards of Learning for Virginia Public Schools</b>  <a href="http://www.doe.virginia.gov/filing/hsstandards_dots/mathematics/index.html">http://www.doe.virginia.gov/filing/hsstandards_dots/mathematics/index.html</a>	<b>Science Standards of Learning for Virginia Public Schools</b>  <a href="http://www.doe.virginia.gov/filing/hsstandards_dots/science/index.html">http://www.doe.virginia.gov/filing/hsstandards_dots/science/index.html</a>
--	--	--

15

---

---

---

---

---

---

9/20/20

**SOL Test Blueprints: Initial Basis for VESOL**

- SOL Assessment Blueprints were the starting point for essentialization (by VDOE + UO/BRT)
- These SOL were candidates for essentialization to create new VESOL in each content area (Reading/Writing, Math, and Science)

16

---



---



---



---



---



---

**“Mile-high” View of Essentialization Process****General process followed:**

- Eliminate behaviors (SOL) too nuanced or difficult to measure
- Limit scope and depth of content/verbs, simplify complex verbs, eliminate superfluous text

**Questions asked:**

- What is the big idea of the SOL?
- Is there a sequence in behaviors in one (some) SOL that subsumes others?
- Are some behaviors more accessible and appropriate/relevant than others for SWSCD?
- Which behaviors can be formatted into recall/recognition/identification response (i.e., DoK)?

**IMPORTANT FOCUS:**

- Essentialization focuses on what students are asked to demonstrate proficiency (i.e., *performance demand*).

17

---



---



---



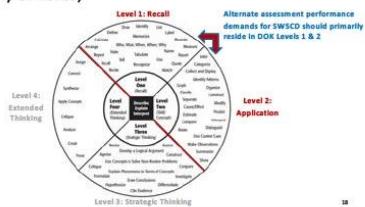
---



---



---

**Webb’s Depth of Knowledge (DOK): Cognitive Processes (Hierarchy of Verbs)**

18

---



---



---



---



---



---

9/20/20

**Reducing Depth, Breadth and Complexity (RDBC) of SOL****Scaffolded RDBC of SOL to create VESOL:**

1. Remove any SOL *not assessed* on the SOL Assessment
2. Essentialize SOL based on linkage, accessibility, & appropriateness/relevance:
  - Real estate, Realism, and Behavioral considerations
  - Sometimes:
    - SOL were removed (overly complex or inappropriate)
    - Essentialized VESOL subsume others

19

---

---

---

---

---

---

**Considerations when Reducing Depth, Breadth and Complexity (RDBC) of SOL**

- **Real estate:** Multiple opportunities are needed to accurately demonstrate standards-based proficiency. This limits the "real estate" that can be tested, and thus, the number of VESOL essentialized.
- **Realism:** What is realistic and taught in the classroom? Understanding cellular processes requires overly complex cognitive processes that are not used in everyday school/life — likely not accessible or appropriate/relevant.
- **Behavior:** Accessibility is crucial. For example, standards that specify oral speaking behaviors should not be used. Reading 3.1, and 3.2 'Communication & Multimodal Literacies' were not essentialized (*not assessed in the SOL Assessment either*).

20

---

---

---

---

---

---

**Essentialization Operationalized:**  
**SOL → VESOL → Essentialized Assessment Frameworks (EAF)**

(More of what we've done this summer)

21

---

---

---

---

---

---

9/20/20

**Essentialization Operationalized: Moving from SOL to VESOL to Essentialized Assessment Frameworks (EAF)**

- SOL standards in Reading/Writing, Math, & Science consist of:
  - Strands (e.g., Living Systems and Processes)
  - Standard (e.g., 4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive.)
  - Bullets (sub-standards) (e.g., Key ideas include a) the survival of plants and animals depends on genetics; b) plants and animals have (different) structures and processes for obtaining energy; and c) plants and animals have (different) structures and processes for creating offspring.)
- SOL → VESOL → Essentialized Assessment Frameworks (EAF):
  - VESOL w/ vertically articulated (ranges in) performance demands, Low – Med – High complexity parameters — organized by content area and the grade

22

---



---



---



---



---



---



---



---



---



---

**Science Example (VESOL)**

**4.2.a-c (SOL):**  
The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have (different) structures and processes for obtaining energy; and c) plants and animals have (different) structures and processes for creating offspring.

**4.2.a-c essentialized (VESOL):**

Sci.4.2.a-c.1: Recognize that plants need light, air, and water to grow.  
Sci.4.2.a-c.2: Recognize that living organisms have unique structures that help them obtain what they need to grow and survive.

23

---



---



---



---



---



---



---



---



---



---

**Low – Med – High Complexity Parameters: Looking Ahead to Alternate Assessment (& Instruction)**

- When essentializing a given SOL, Low – Medium – High complexity parameters were considered based on an appropriate range of grade-level expectations that are assessable for SWSCD
- Questions asked:
  - How are Low complexity — the most accessible, lowest complexity articulation of VESOL performance demand(s) — operationalized?
  - How are High complexity — the upper bound of VESOL performance demand(s) — operationalized?
  - Do L – M – H reasonably build in complexity?
  - Do L – M – H complement other VESOL complexity ranges within a grade-level?
  - Do L – M – H vertically articulate across grades (e.g., Grade 3 to Grade 4 for similar VESOL)?
  - e.g., # words/sentences reasonably increase from L to M to H within grade; # words/sentences/paragraphs reasonably increase when comparing L – M – H across grades

24

---



---



---



---



---



---



---



---



---



---

9/20/20

**Science Example (VESOL + L-M-H Complexity Parameters)**

**4.2-a**

The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to grow and survive. Key ideas include the survival of plants and animals depends on photosynthesis; b) plants and animals have different structures and processes for obtaining energy; and c) plants and animals have different structures and processes for creating offspring.

**4.2-a essentialized**

Students will recognize that plants need light, air, and water to grow. **Medium**. Use simple diagrams to identify what a plant/tree/flower needs to grow – for test items, the correct answer being light, water and/or air compared to things that would obviously not help growth. **Medium**. Use simple diagrams to examine if a single plant/tree/flower will grow better/worse/the same if given varying amounts of light, water and/or air. **Medium**. Observe the growth of 2-3 plants/trees/flowers when one is given an appropriate light, water and/or air, and the others are not.

**4.2-a.2-a.2** Recognize that living organisms have unique structures that help them obtain what they need to grow and survive.

**4.2-a.2-a.2** Identify which is an animal or plant using common terminology and pictures of common organisms. **Medium**. Identify that they have heart beat (e.g., plants, other animals), breathe air, and drink water to grow and survive. **Medium**. Identify that plants need materials in soil, air, and water to grow and survive compared to common objects/features they do not need. **Medium**. Identify and connect the unique structures that help plants and animals obtain what need to grow and survive from their environments.

---



---



---



---



---



---



---



---



---



---

**Essentialized Assessment Frameworks (EAF)**

Number	Date	Standards	ESL	VESOL	Low – Medium – High Complexity Parameters	Code
4.2	4-2-c	Living Systems & Processes	A.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to grow and survive. Key Ideas include the survival of plants and animals depends on photosynthesis; b) plants and animals have different structures and processes for obtaining energy; and c) plants and animals have different structures and processes for creating offspring.	recognize that plants need light, air, and water to grow  Recognize that living organisms have unique structures that help them obtain what they need to grow and survive.	1. Use simple diagrams to identify what a plant/tree/flower needs to grow – for test items, the correct answer being light, water and/or air compared to things that would obviously not help growth. 2. Use simple diagrams to examine if a single plant/tree/flower will grow better/worse/the same if given varying amounts of light, water and/or air. 3. Observe the growth of 2-3 plants/trees/flowers when one is given an appropriate light, water and/or air, and the others are not.  1. Identify which is an animal or plant using common terminology and pictures of common organisms. 2. Identify that they have heart beat (e.g., plants, other animals), breathe air, and drink water to grow and survive. 3. Identify that plants need materials in soil, air, and water to grow and survive compared to common objects/features they do not need. 4. Identify and connect the unique structures that help plants and animals obtain what need to grow and survive from their environments.	Sci.A. 2.a. 2.c.  Sci.A. 2.a. 2.c

• EAF show **SOL** and **linked VESOL** that are elaborated into three complexity parameters  
• These Low – Medium – High complexity parameters describe instructable/demonstrable/assessable skills, reflecting ranges in complexity for each VESOL (appropriate to grade-level, content area, and SWSCD)

---



---



---



---



---



---



---



---



---



---

**Teacher Review & Validation Study**

(What you're doing this fall)

---



---



---



---



---



---



---



---



---

9/20/20

**Claims Important to this Study**

1. VESOL should be linked to original SOL.
2. Academic content and performance demands in VESOL and L-M-H parameters should be accessible to SWSCD.
3. Academic content and performance demands in VESOL and L-M-H parameters should be appropriate/relevant for SWSCD.

---



---



---



---



---



---

**Your Task in this Study**

Use your expertise to make sound judgments about the quality of VESOL and L-M-H parameters:

- *Linkage* — strength of connection with original SOL
  - *Accessibility* — whether content and performance demands are understandable, reachable, and demonstrable for SWSCD
  - *Appropriateness/relevance* — whether content and performance demands are germane to the lives and learning needs of SWSCD
- How VESOL and/or L-M-H parameters might be improved

---



---



---



---



---



---

**Judgements Gathered from 6 Review Questions for each VESOL and L-M-H**

1. Rate the strength of the linkage between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL). 3-pt rating scale: 0 = No link; 1 = Satisfactory Link; 2 = Strong Link
2. Is the VESOL accessible to students with significant cognitive disabilities (SWSCD)? Yes / No
3. Are Low-Medium-High (L-M-H) complexity parameters accessible to SWSCD? Yes / No
4. Is the VESOL appropriate/relevant to SWSCD? Yes / No
5. Are Low-Medium-High (L-M-H) complexity parameters appropriate/relevant to SWSCD? Yes / No
6. For any '0' or 'No' rating, please provide a rationale and recommendation/s for improving the standard. Please be specific and refer to the relevant VESOL and/or Low-Medium-High parameter details in your rationale(s) and recommendation(s). Open-ended (text-box)

---



---



---



---

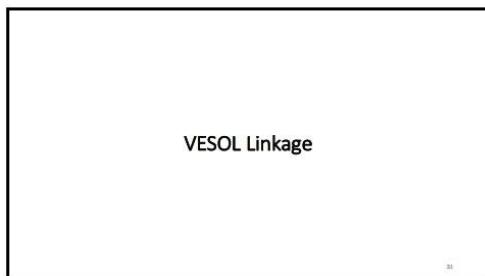


---



---

9/20/20



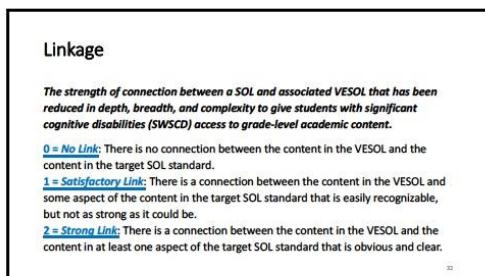
---

---

---

---

---



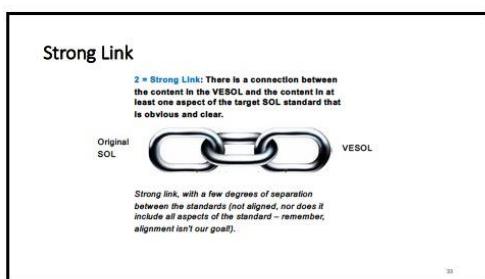
---

---

---

---

---



---

---

---

---

---

9/20/20

**Strong Link Example (Reading)****Grade 3 Original CCSS Standard:**

CCSS.ELA-LITERACY.RI.3.4

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

**Content focus:** Use context clues to determine the meaning of words.

---

---

---

---

---

---

**Strong Link Example (Reading)**

**Content focus:** Using context clues to determine the meaning of words.

**Essentialized Standard with L-M-H Parameters:**

Identify the meaning of a general academic or domain-specific word.  
L - Sentence of 5 words or less read to student. M - Sentence of 6 words or more  
read to student. H - Sentence of 7 words or more read to student.

**Discussion:** This is clearly content that strongly links to the grade level standard.  
The student is identifying the meaning of words within the context of a sentence,  
with the number of words increasing from Low to High, which increases complexity.

---

---

---

---

---

---

**Satisfactory Link**

**1 = Satisfactory Link:** There is a connection  
between the content in the VESOL and some  
aspect of the content in the target SOL standard  
that is easily recognizable, but not as strong as  
it could be.

Original            VESOL

Early recognizable connection, but there are  
dips or separation between the standards that  
might be strengthened.

---

---

---

---

---

---

9/20/20

### Satisfactory Link Example (Math)

Grade 8 Original CCSS Standard  
CCSS.MATH.CONTENT.8.EE.B.5

Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear, or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

**Content focus:** Analyze/sketch graphs to determine/show change between two variables (increasing/decreasing, linear, or nonlinear)

---

---

---

---

---

---

---

---

### Satisfactory Link Example (Math)

Content focus: Analyze/sketch graphs to determine/show change between two variables (increasing/decreasing, linear or nonlinear).

**Essentialized Standard with L-M-H Parameters:**  
Identify slope as positive, negative, zero, or undefined.  
L - Identify positive slopes. M - Identify negative slopes. H - Identify zero or undefined slopes.

**Discussion:** It might be argued that this is strong link, but it is at the very least satisfactory. The student is indeed comparing functions. They are only linear and they are only in four formats, but it gets at the original standard's focus on examining relationships between two variables graphically.

How might we improve this essentialized standard?

---

---

---

---

---

---

## No Link

**0 = No Link:** There is no connection between the content in the VESOL and the content in the target SOL standard.



*The two standards being compared are not the same stuff.*

x

---

---

---

---

---

---

---

9/20/20

**No Link Example (Writing)****Grade 7 Original CCSS Standard****CCSS.ELA-LITERACY.W.7.3**

Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

**Content focus:** Express a real or imagined story that engages and orients the reader in written form.

40

---

---

---

---

---

---

**No Link Example (Science)**

**Content focus:** Express a real or imagined story that engages and orients the reader in written form.

**Essentialized Standard with L-M-H Parameters:**

Identify a number in a written story.

L - Identify numbers 1-10; M - Identify numbers 11-20; H - Identify numbers 21-40

**Discussion:** Though this standard is indeed related to writing (so the situation could certainly be worse), it is not about expressing a story in any way. It has to do with identifying the written form of numbers.

How might we improve this essentialized standard?

41

---

---

---

---

---

---

**VESOL Accessibility**

42

---

---

---

---

---

---

9/20/20

### Accessibility

*The degree to which the academic content and performance demands in the VESOL and L-M-H parameters is understandable, reachable, and demonstrable for SWSGD. Yes / No*

Questions to ask:

- Will SWSGD understand the language (e.g., vocabulary, terminology)?
- Will SWSGD understand the intent (e.g., knowledge, skillsets targeted)?
- Are there any sensory impairments that may make this VESOL inaccessible (even if taught in Large Print, Braille, or another appropriate communication modality)?
- Do you have any suggested rewording (for clarity, universal access, and/or to get rid of superfluous text or concepts)?

43

---

---

---

---

---

---

### Accessibility Example

*The degree to which the academic content and performance demands in the VESOL and L-M-H parameters is understandable, reachable, and demonstrable for SWSGD.*

**Essentialist Grade 3 Science Standard with L-M-H Parameters:**

Identify and compare possible solutions to different problems, including design-related problems, that impact people and the environment.  
L - Situations involve visual solutions to common problems and solutions and/or the tools that solve them (e.g., flat bike tire - use a pump) compared to non-solutions/unrelated actions (e.g., playing outside). M - Situations involve visual solutions to common problems and actions and/or the tools that solve them (i.e., flat bike - use a pump) compared to solutions to other similar problems. H - Extend the complexity of M-level, to include the use of tables, graphs, and flow charts for comparing solutions (e.g., strongest metal, hardest material, best sequence of steps for making or repairing something).

Discussion: What do you think? Accessible? Inaccessible?

44

---

---

---

---

---

---

### VESOL Appropriateness/Relevance

45

---

---

---

---

---

---

9/20/20

### Appropriateness/Relevance

*The degree to which the academic content in the VESOL and L-M-H parameters are connected to the lives and learning needs of SWSCD.*  
**Yes / No**

**Questions to ask:**

- Do they require knowledge and skills that are important in school?
- Do they leverage knowledge and skills that are important for success in post-secondary contexts? (e.g., employment, life skills)

46

---

---

---

---

---

---

---

### Appropriateness/Relevance Example

*The degree to which the academic content in the VESOL and L-M-H parameters are connected to the lives and learning needs of SWSCD.*

**Essentialized Standard with L-M-H Parameters**

Understand and make observations about line graphs, bar charts, column charts, and boxplots.  
 L - Identify the graph, chart, or boxplot that represents a simple dataset. M - Make observations and inferences about data represented in a graph, chart, or boxplot. H - Compare and analyze two simple data sets using graphs, charts, or boxplots.

**Discussion:** What do you think? Appropriate? Relevant?

47

---

---

---

---

---

---

---

### Accessibility vs. Appropriateness/Relevance

- VESOL can be accessible, though not relevant to the lives/learning needs of SWSCD
  - e.g., A Grade 11 VESOL requires rudimentary understanding of nuclear fission [splitting atoms] and fusion [merging atoms] as processes that require and yield different kinds of energy.
  - One might expect that some/many students could grasp the concept of breaking an atom into smaller particles or fusing atoms together to create another atom and release energy. But, is this content truly relevant for the population? → we would likely avoid essentializing the original SOL
- VESOL can be relevant, though have content/performance demands that are inaccessible to SWSCD
  - e.g., A Grade 3 VESOL requires reading different types of text to determine the main idea while L-M-H parameters require students to read multiple paragraphs
  - VESOL is relevant... skills for school and life — however, L-M-H require overly complex and unreasonable performance demands → decrease amount of text, and/or read text to student

48

---

---

---

---

---

---

---

9/20/20

VESOL Improvement Recommendations

49

---



---



---



---



---



---

**Providing Rationale and Recommendations for Poor Ratings**

For any '0' or 'No' rating, please provide a rationale and recommendation/s for improving the standard. Please be specific and refer to the relevant VESOL and/or L-M-H parameter details in your rationale(s) and recommendation(s).

The rationale and recommendations you provide should:

- Be specific, succinct, and constructive
- Yield actionable guidance for revision of VESOL and/or L-M-H parameters that you deem lacking in linkage, accessibility, or appropriateness/relevance.

50

---



---



---



---



---



---

**Judgements Gathered from 6 Review Questions for each VESOL and L-M-H**

1. Rate the strength of the linkage between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL). 3-pt rating scale: 0 = No link; 1 = Satisfactory Link; 2 = Strong Link

2. Is the VESOL accessible to students with significant cognitive disabilities (SWSCD)? Yes / No

3. Are Low-Medium-High complexity parameters accessible to SWSCD? Yes / No

4. Is the VESOL appropriate/relevant to SWSCD? Yes / No

5. Are Low-Medium-High complexity parameters appropriate/relevant to SWSCD? Yes / No

6. For any '0' or 'No' rating, please provide a rationale and recommendation/s for improving the standard. Please be specific and refer to the relevant VESOL and/or Low-Medium-High parameter details in your rationale(s) and recommendation(s). Open-ended (text-box)

51

---



---



---



---

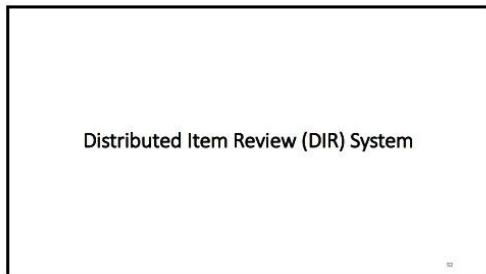


---



---

9/20/20



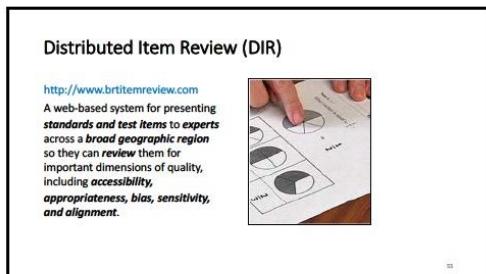
---

---

---

---

---



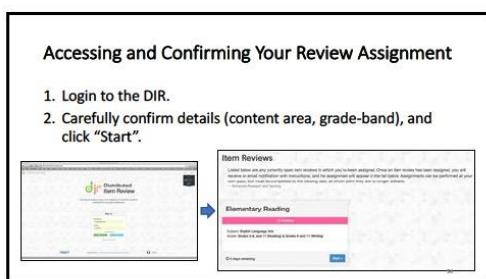
---

---

---

---

---



---

---

---

---

---

9/20/20

## Accessing and Confirming Review Assignment

3. Take time to review and open resources, videos, and instructions to reframe study and orient yourself. Resources include:

- Key Concepts and Definitions PDF
- Content Area SOL
- Slides of Training (TBA)
- Video of training (TBA)

4. Begin reviewing VESOL by clicking "Next".



The screenshot shows the 'Elementary Reading' module interface. On the left, there's a sidebar with navigation links like 'Home', 'About This Module', 'Module Overview', 'Module Objectives', 'Module Components', 'Instructional Materials', 'Assessments', 'Resources', and 'Help'. The 'Resources' link is highlighted with a red box. The main content area has a heading 'Elementary Reading' with a video thumbnail below it. Below the video, there's a section titled 'Helpful Resources for Student Success' with two video thumbnails labeled 'Population & Training videos'. At the bottom, there's a 'Feedback' section.

---

---

---

---

---

---

---

---

---

**Reviewing VESOL**

- Carefully review all aspects of **VESOL** – the actual standard language and each of the Low – Medium – High complexity parameters – in the context of SWSCD population
- Have resources open during review (e.g., Key Concepts & Definitions).
- Answer 5 required review questions.
- Provide information on how to improve VESOL and/or L-M-H in comment box, required for any response of '0' or 'No'.
- Click "Save and Continue".

**Item List that is clickable, shows standards completed (+) and not yet completed (-)**

**Resources available**

**Review Questions**

**Save!!**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

9/20/20

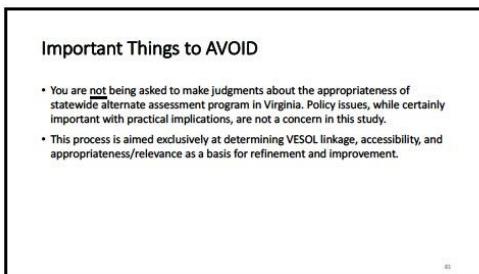
Nuances to Note cont.	
<ul style="list-style-type: none"> <li>Some VESOL are associated with multiple SOL (Math &amp; Science, especially — redundant content if all were assigned)</li> </ul>	
3.0	Life Science
3.0	Life Science

Elementary Math - VESOL_MH44.BC	2 SOL to consider
<p>Some VESOL are associated with multiple SOL (Math &amp; Science, especially – redundant content if all were essentialized)</p> <ul style="list-style-type: none"> <li>➤ You see multiple SOL — <u>Which do I use for linkage rating??</u></li> <li>➤ All of them. Matching SOL code stem are *most important* for linkage rating, but others are important, too, and would be "addressed" by the VESOL if essentialized (e.g., <b>VESOL_MH44.Bc</b> → <b>VA_MH44.Bb, VA_MH44.Bc</b>)</li> </ul> <p>Non-Essential: Using Protractors Name components of time, weight, and length units using graphic displays.</p> <p>Item</p> <p>Question</p> <p>Standards</p> <ol style="list-style-type: none"> <li>1. Name three components of time, weight, and length units using graphic displays.</li> <li>2. Name three components of time, weight, and length units using graphic displays.</li> <li>3. The purpose of some science investigations is to measure the amount of time it takes for an event to occur. Which of the following is a measurement of time?</li> <li>4. Which of the following is a measurement of length?</li> <li>5. Which of the following is a measurement of weight?</li> </ol>	<p>Non-Essential: Using Protractors Name components of time, weight, and length units using graphic displays.</p> <p>Item</p> <p>Question</p> <p>Standards</p> <ol style="list-style-type: none"> <li>1. Name three components of time, weight, and length units using graphic displays.</li> <li>2. Name three components of time, weight, and length units using graphic displays.</li> <li>3. The purpose of some science investigations is to measure the amount of time it takes for an event to occur. Which of the following is a measurement of time?</li> <li>4. Which of the following is a measurement of length?</li> <li>5. Which of the following is a measurement of weight?</li> </ol>

- Stop and start your review at anytime and any number of times – the DIR keeps track of what you've successfully saved/completed by giving you a green check (green box) next to the ID code (always top-left side of screen).
- Edit previously saved responses by clicking on the ID code — click "Save and Continue" to keep changes.
- Self-monitor patterns of attentiveness and consistency in your responses.
- Budget your time because accuracy/quality are important, and compensation is dependent upon completion of review assignments.

20

9/20/20




---



---



---



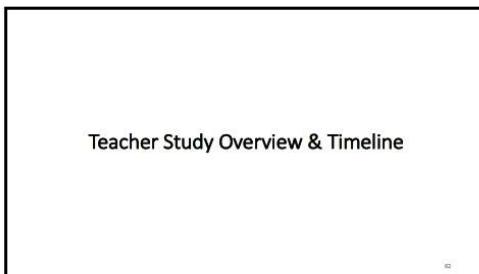
---



---



---




---



---



---



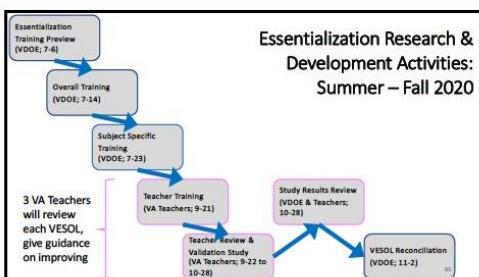
---



---



---




---



---



---



---



---



---

9/20/20

**Virginia Essentialized Standards of Learning (VESOL)**  
**Teacher Review & Validation Study – Fall 2020**

**Teacher Review & Validation Study (VA Teachers; 9-22 to 10-28)**

**4-step Process in which Teachers:**

- (1) Independently rate VESOL for linkage to SOL, accessibility, and appropriateness/relevance (Round 1; 9-21 to 9-25),
- (2) Review Round 1 disagreements and independently re-rate VESOL (Round 2; 10-5 to 10-9),
- (3) Review Round 2 disagreements and prepare for workgroup (10-19 to 10-27), and
- (4) Resolve remaining disagreements during "in-person" virtual workgroup (10-28)

64

---

---

---

---

---

---

**Next Steps**

- Reviews open this evening.
- **Please complete Round 1 review assignment by evening of Friday, September 25 — that's the end of this week!**
- We will monitor progress, and may contact you if we see you going down a rabbit hole, or if the deadline is nearing and you have many VESOL left to review.

65

---

---

---

---

---

---

**Next Steps**

- (if you haven't already) Create a Distributed Item Review (DIR) user account: <http://www.brititemreview.com/>
- Depending on grade-band and content area, your review assignment should take you about 2-3 hours — budget about 5-10 minutes per VESOL, on average, with some taking less or more time.
- Look for emails from Sev and Shawn who will provide add'l information to help guide Round 2 and Virtual Workgroup tasks.

66

---

---

---

---

---

---

9/20/20

If you have questions, concerns, or encounter any technical difficulties at any point, please email:

Shawn Irvin, PhD: [pirvin@oregon.edu](mailto:pirvin@oregon.edu)

and

Sevrina Tindal: [stindal@uoregon.edu](mailto:stindal@uoregon.edu)

Study Compensation: Please email your VDOE contact.



47

---

---

---

---

---

---

Thank you!!

Your work is crucial to building an alternate assessment system that is accessible and appropriate/relevant for our SWSCD...that gives them an opportunity to demonstrate proficiency toward grade-level academic content.

Do you have any questions?



48

---

---

---

---

---

---

Extra Slides

49

---

---

---

---

---

---

9/20/20

### Nuances to Note in Science Reviews

Some Science SOL do not have VESOL — these are SOL that were essentialized (inaccessible/irrelevant on their face ... real estate, realism, behavioral)

→ These are organized into a small separate review assignment, with just two review questions:

1. The SOL is too complex and should not be essentialized. Yes/No
2. For any 'No' rating, please provide a rationale and recommendation/s for essentializing the standard. Please be specific and elaborate VESOL and L-M-H details.

---

---

---

---

---

---

### **Appendix 3.D.1**

#### **Special Education (SPED) Teacher Review & Validation Study**

##### **Average Linkage Ratings — Round 1 VESOL**

### Round 1 Mean Linkage Ratings by VESOL

<b>Content</b>	<b>VESOL ID</b>	<b>Mean Rating</b>
<b>Math</b>	VESOL_M033.12A	2.00
<b>Math</b>	VESOL_M033.15A	2.00
<b>Math</b>	VESOL_M033.1A	1.00
<b>Math</b>	VESOL_M033.1B	1.67
<b>Math</b>	VESOL_M033.1C	1.33
<b>Math</b>	VESOL_M033.2A	1.33
<b>Math</b>	VESOL_M033.2B	1.00
<b>Math</b>	VESOL_M033.2C	1.33
<b>Math</b>	VESOL_M033.3A	2.00
<b>Math</b>	VESOL_M033.3B	2.00
<b>Math</b>	VESOL_M033.4A	1.67
<b>Math</b>	VESOL_M033.4C	2.00
<b>Math</b>	VESOL_M033.6A	2.00
<b>Math</b>	VESOL_M033.7A	2.00
<b>Math</b>	VESOL_M033.7B	1.67
<b>Math</b>	VESOL_M033.8A	2.00
<b>Math</b>	VESOL_M033.8B	2.00
<b>Math</b>	VESOL_M033.9A	1.33
<b>Math</b>	VESOL_M044.10A	2.00
<b>Math</b>	VESOL_M044.10B	1.33
<b>Math</b>	VESOL_M044.14A	2.00
<b>Math</b>	VESOL_M044.1A	1.33
<b>Math</b>	VESOL_M044.1B	1.33
<b>Math</b>	VESOL_M044.1C	2.00
<b>Math</b>	VESOL_M044.2A	1.33
<b>Math</b>	VESOL_M044.2B	1.00

<b>Math</b>	VESOL_M044.2C	1.33
<b>Math</b>	VESOL_M044.3A	0.67
<b>Math</b>	VESOL_M044.3B	0.67
<b>Math</b>	VESOL_M044.3C	1.67
<b>Math</b>	VESOL_M044.3D	2.00
<b>Math</b>	VESOL_M044.4A	1.33
<b>Math</b>	VESOL_M044.4B	1.67
<b>Math</b>	VESOL_M044.4C	1.67
<b>Math</b>	VESOL_M044.4D	1.33
<b>Math</b>	VESOL_M044.5A	1.67
<b>Math</b>	VESOL_M044.5B	2.00
<b>Math</b>	VESOL_M044.5C	2.00
<b>Math</b>	VESOL_M044.6A	1.33
<b>Math</b>	VESOL_M044.8A	2.00
<b>Math</b>	VESOL_M044.8C	1.67
<b>Math</b>	VESOL_M044.8D	1.67
<b>Math</b>	VESOL_M055.14B	2.00
<b>Math</b>	VESOL_M055.16A	1.33
<b>Math</b>	VESOL_M055.17A	1.67
<b>Math</b>	VESOL_M055.17B	2.00
<b>Math</b>	VESOL_M055.17C	1.67
<b>Math</b>	VESOL_M055.19A	1.33
<b>Math</b>	VESOL_M055.2A	2.00
<b>Math</b>	VESOL_M055.2B	1.33
<b>Math</b>	VESOL_M055.3A	1.00
<b>Math</b>	VESOL_M055.3B	2.00
<b>Math</b>	VESOL_M055.5A	2.00
<b>Math</b>	VESOL_M055.5B	1.33

<b>Math</b>	VESOL_M055.6A	2.00
<b>Math</b>	VESOL_M055.6B	1.67
<b>Math</b>	VESOL_M055.8B	1.67
<b>Math</b>	VESOL_M055.9A	2.00
<b>Math</b>	VESOL_M066.10A	1.00
<b>Math</b>	VESOL_M066.11A	0.67
<b>Math</b>	VESOL_M066.12A	1.00
<b>Math</b>	VESOL_M066.14A	1.33
<b>Math</b>	VESOL_M066.2A	1.00
<b>Math</b>	VESOL_M066.3A	1.33
<b>Math</b>	VESOL_M066.3B	1.33
<b>Math</b>	VESOL_M066.5A	0.67
<b>Math</b>	VESOL_M066.5C	0.33
<b>Math</b>	VESOL_M066.6A	1.00
<b>Math</b>	VESOL_M066.6B	1.33
<b>Math</b>	VESOL_M066.7C	1.33
<b>Math</b>	VESOL_M066.8A	1.33
<b>Math</b>	VESOL_M077.10A	1.00
<b>Math</b>	VESOL_M077.10B	1.00
<b>Math</b>	VESOL_M077.1A	1.00
<b>Math</b>	VESOL_M077.1C	1.33
<b>Math</b>	VESOL_M077.1E	1.33
<b>Math</b>	VESOL_M077.4A	1.00
<b>Math</b>	VESOL_M077.6A	1.00
<b>Math</b>	VESOL_M077.8A	1.00
<b>Math</b>	VESOL_M077.9A	1.33
<b>Math</b>	VESOL_M088.11A	1.33
<b>Math</b>	VESOL_M088.13A	1.33

<b>Math</b>	VESOL_M088.14A	1.67
<b>Math</b>	VESOL_M088.15A	0.67
<b>Math</b>	VESOL_M088.16A	1.00
<b>Math</b>	VESOL_M088.16B	1.33
<b>Math</b>	VESOL_M088.16E	1.00
<b>Math</b>	VESOL_M088.3A	1.00
<b>Math</b>	VESOL_M088.6A	1.00
<b>Math</b>	VESOL_M088.7A	0.67
<b>Math</b>	VESOL_M088.9A	1.00
<b>Math</b>	VESOL_MA.1A	2.00
<b>Math</b>	VESOL_MA.1B	1.67
<b>Math</b>	VESOL_MA.2A	1.67
<b>Math</b>	VESOL_MA.2B	1.67
<b>Math</b>	VESOL_MA.3A	1.67
<b>Math</b>	VESOL_MA.4A	1.00
<b>Math</b>	VESOL_MA.4E	1.67
<b>Math</b>	VESOL_MA.5A	1.33
<b>Math</b>	VESOL_MA.6A	2.00
<b>Math</b>	VESOL_MA.7A	1.67
<b>Math</b>	VESOL_MA.7D	1.67
<b>Math</b>	VESOL_MA.7F	1.67
<b>Math</b>	VESOL_MA.8	1.67
<b>Math</b>	VESOL_MA.9	1.67
<b>Reading</b>	VESOL_R03_01	1.33
<b>Reading</b>	VESOL_R03_02	1.33
<b>Reading</b>	VESOL_R03_03	1.67
<b>Reading</b>	VESOL_R03_04	2.00
<b>Reading</b>	VESOL_R03_05	1.33

<b>Reading</b>	VESOL_R03_06	1.00
<b>Reading</b>	VESOL_R03_07	1.33
<b>Reading</b>	VESOL_R03_08	2.00
<b>Reading</b>	VESOL_R03_09	1.00
<b>Reading</b>	VESOL_R03_10	1.67
<b>Reading</b>	VESOL_R04_01	1.67
<b>Reading</b>	VESOL_R04_02	1.33
<b>Reading</b>	VESOL_R04_03	0.67
<b>Reading</b>	VESOL_R04_04	1.00
<b>Reading</b>	VESOL_R04_05	2.00
<b>Reading</b>	VESOL_R04_06	1.67
<b>Reading</b>	VESOL_R04_07	2.00
<b>Reading</b>	VESOL_R04_08	1.67
<b>Reading</b>	VESOL_R04_09	0.67
<b>Reading</b>	VESOL_R05_01	1.33
<b>Reading</b>	VESOL_R05_02	1.33
<b>Reading</b>	VESOL_R05_03	0.67
<b>Reading</b>	VESOL_R05_04	1.00
<b>Reading</b>	VESOL_R05_05	2.00
<b>Reading</b>	VESOL_R05_06	1.67
<b>Reading</b>	VESOL_R05_07	1.00
<b>Reading</b>	VESOL_R05_08	1.33
<b>Reading</b>	VESOL_R06_01	1.33
<b>Reading</b>	VESOL_R06_02	1.33
<b>Reading</b>	VESOL_R06_03	1.00
<b>Reading</b>	VESOL_R06_04	1.00
<b>Reading</b>	VESOL_R06_05	2.00
<b>Reading</b>	VESOL_R06_06	2.00

<b>Reading</b>	VESOL_R06_07	2.00
<b>Reading</b>	VESOL_R06_08	1.33
<b>Reading</b>	VESOL_R07_01	1.33
<b>Reading</b>	VESOL_R07_02	1.00
<b>Reading</b>	VESOL_R07_03	1.67
<b>Reading</b>	VESOL_R07_04	1.33
<b>Reading</b>	VESOL_R07_05	2.00
<b>Reading</b>	VESOL_R07_06	2.00
<b>Reading</b>	VESOL_R07_07	1.67
<b>Reading</b>	VESOL_R07_08	1.67
<b>Reading</b>	VESOL_R08_01	1.67
<b>Reading</b>	VESOL_R08_02	1.67
<b>Reading</b>	VESOL_R08_03	1.67
<b>Reading</b>	VESOL_R08_04	1.33
<b>Reading</b>	VESOL_R08_05	2.00
<b>Reading</b>	VESOL_R08_06	2.00
<b>Reading</b>	VESOL_R08_07	1.00
<b>Reading</b>	VESOL_R08_08	1.33
<b>Reading</b>	VESOL_R08_09	1.33
<b>Reading</b>	VESOL_REOC_01	1.33
<b>Reading</b>	VESOL_REOC_02	1.33
<b>Reading</b>	VESOL_REOC_03	1.00
<b>Reading</b>	VESOL_REOC_04	1.33
<b>Reading</b>	VESOL_REOC_05	1.67
<b>Reading</b>	VESOL_REOC_06	1.67
<b>Reading</b>	VESOL_REOC_07	1.67
<b>Reading</b>	VESOL_REOC_08	1.33
<b>Reading</b>	VESOL_REOC_09	1.67

<b>Science</b>	VESOL_4.2_1_A-C	1.33
<b>Science</b>	VESOL_4.2_2_A-C	1.67
<b>Science</b>	VESOL_4.3A-D	2.00
<b>Science</b>	VESOL_4.4A-C	0.67
<b>Science</b>	VESOL_4.5A-C	1.00
<b>Science</b>	VESOL_4.6_1_A-D	1.67
<b>Science</b>	VESOL_4.6_2_A-D	1.67
<b>Science</b>	VESOL_4.7A-C	1.67
<b>Science</b>	VESOL_4.8A-D	1.67
<b>Science</b>	VESOL_5.3A-E	2.00
<b>Science</b>	VESOL_5.4A-E	1.67
<b>Science</b>	VESOL_5.5A-D	1.67
<b>Science</b>	VESOL_5.6A-D	1.67
<b>Science</b>	VESOL_5.7_1_A-C	1.67
<b>Science</b>	VESOL_5.7_2_A-C	2.00
<b>Science</b>	VESOL_5.7_3_A-C	2.00
<b>Science</b>	VESOL_5.8A-E	1.33
<b>Science</b>	VESOL_5.9A-C	2.00
<b>Science</b>	VESOL_6.2_1_A-D	1.00
<b>Science</b>	VESOL_6.2_2_A-D	1.33
<b>Science</b>	VESOL_6.3A-E	2.00
<b>Science</b>	VESOL_6.4A-D	1.67
<b>Science</b>	VESOL_6.6A-F	1.33
<b>Science</b>	VESOL_6.7A-F	1.33
<b>Science</b>	VESOL_6.8A-D	1.67
<b>Science</b>	VESOL_6.9_1_A-F	2.00
<b>Science</b>	VESOL_6.9_2_A-F	1.33
<b>Science</b>	VESOL_BIO.2_1_A-E	1.67

<b>Science</b>	VESOL_BIO.2_2_A-E	1.33
<b>Science</b>	VESOL_BIO.4A-E	1.33
<b>Science</b>	VESOL_BIO.5A-B	1.00
<b>Science</b>	VESOL_BIO.6A-F	1.33
<b>Science</b>	VESOL_BIO.7_1_A-D	1.67
<b>Science</b>	VESOL_BIO.7_2_A-D	1.67
<b>Science</b>	VESOL_BIO.8_1_A-D	1.33
<b>Science</b>	VESOL_BIO.8_2_A-D	1.67
<b>Science</b>	VESOL_LS.10_1_A-C	1.33
<b>Science</b>	VESOL_LS.10_2_A-C	2.00
<b>Science</b>	VESOL_LS.3A-C	1.67
<b>Science</b>	VESOL_LS.4_1_A-B	2.00
<b>Science</b>	VESOL_LS.4_2_A-B	1.33
<b>Science</b>	VESOL_LS.6A-D	2.00
<b>Science</b>	VESOL_LS.7A-B	2.00
<b>Science</b>	VESOL_LS.8A-C	2.00
<b>Science</b>	VESOL_PS.2A-C	1.33
<b>Science</b>	VESOL_PS.3A-D	1.33
<b>Science</b>	VESOL_PS.5A-C	2.00
<b>Science</b>	VESOL_PS.6A-D	1.00
<b>Science</b>	VESOL_PS.8_1_A-B	2.00
<b>Science</b>	VESOL_PS.8_2_A-B	1.67

### **Appendix 3.D.2**

#### **Special Education (SPED) Teacher Review & Validation Study**

##### **Average Linkage Ratings — Round 1 Teacher Reviewers**

### Round 1 Reviewer Summaries

<b>Content</b>	<b>Reviewer</b>	<b>Mean Rating</b>
<b>Math</b>	8	1.86
<b>Math</b>	9	1.79
<b>Math</b>	6	0.85
<b>Math</b>	2	1.78
<b>Math</b>	1	1.55
<b>Math</b>	5	1.00
<b>Math</b>	4	1.39
<b>Math</b>	3	1.55
<b>Math</b>	7	1.29
<b>Reading</b>	11	1.81
<b>Reading</b>	17	1.57
<b>Reading</b>	18	0.93
<b>Reading</b>	14	1.71
<b>Reading</b>	10	1.07
<b>Reading</b>	15	1.39
<b>Reading</b>	16	1.79
<b>Reading</b>	13	1.42
<b>Reading</b>	12	1.30
<b>Science</b>	19	1.78
<b>Science</b>	25	2.00
<b>Science</b>	27	0.89
<b>Science</b>	26	1.44
<b>Science</b>	21	1.39
<b>Science</b>	20	1.72
<b>Science</b>	22	1.70
<b>Science</b>	23	1.57
<b>Science</b>	24	1.61

### **Appendix 3.D.3**

#### **Special Education (SPED) Teacher Review & Validation Study**

##### **Round 1 Takeaways and Round 2 Guidance**

**Virginia Alternate Assessment Teacher Review and Validation Study Fall 2020:  
Round 1 Takeaways & Round 2 Guidance**

**Round 1 Takeaways:**

- 1. Broaden your view of the population of students with significant cognitive disabilities (SWSCD) to include a wider range of academic ability and performance.**

It is sometimes said that there is greater diversity in the “1% population than the rest of the 99%”. While this is somewhat colloquial, one truism it expresses is that there is a wide range of academic abilities and accessibility needs in the SWSCD population. Some students in this population at the higher end of the performance distribution are quite adept at learning reading, math, and science content — that is reduced in depth, breadth, and complexity to some extent. Others in the population might need that same content and performance demands reduced even further. Yet, others might be experiencing such severe developmental and physical disabilities that teaching and learning, while academic in some ways, is highly focused on identifying and developing needed communication and life skills.

You might picture students experiencing Down syndrome or Autism Spectrum Disorder — students with a wide range of developmental and physical disabilities, and thus, a wide range of academic ability and performance in the classroom.

Your experience with specific children in your classroom is an important consideration when rating these VESOL and L-M-H. That experience helps frames the time and care you take when thinking about how the standards might manifest in your classroom or in accountability testing. Yet, that experience may also be limiting at times. When reviewing VESOL and L-M-H parameters it is critically important to tap into a view of the SWSCD population that is broad enough to where a broad range of abilities, as well as diverse approaches to teaching and learning the proposed content, are considered. Your schooling and expertise are also critical.

- 2. Carefully consider each construct independently.**

**Linkage, accessibility, and appropriateness/relevance** are distinct constructs and should be examined independently of each other.

For example, a VESOL might be rated as strongly linked to the original SOL, but at the same time be rated as inaccessible or not relevant for the student population.

In other words, because one construct is rated positively or negatively, it does not necessarily mean the other should be rated the same. Nuance across ratings should be expected.

3. Distinguish between VESOL from L-M-H parameters when rating accessibility and appropriateness/relevance — they are separate review questions and should be considered independently.

For example, a VESOL standard might be rated as appropriate/relevant, however, the way in which the content is elaborated into performance demands in the L-M-H parameters might be deemed not relevant for the population.

The task here is similar to #2 above. Because the appropriateness/relevance of set of L-M-H parameters might need improved in some way, that does not necessarily mean the parent VESOL is inappropriate or that it does not link to the original SOL.

4. Sharpen rationale and recommendations to the specific areas that need improved.

Be specific, succinct, and constructive in your comments. And offer actionable suggestions for revision of VESOL and/or L-M-H parameters that you deem lacking in linkage, accessibility, or appropriateness/relevance.

In other words, each rating of '0' or 'No' should be accompanied by a rationale and recommendation for how it might be improved.

You may of course rate something higher — linkage as a '1' or '2' or accessibility or appropriateness/relevance as 'Yes' — and still provide suggestions for improvement. This is useful feedback and demonstrates nuanced thinking. For example, you might think that more simplified language is necessary for an L-parameter, but that M- and H- parameters are accessible as they are. As a set, you might then rate these L-M-H parameters as being accessible (i.e., as 'Yes'), but offer a specific suggestion around using simplified language.

5. Review resources in the DIR carefully prior to reviewing VESOL and L-M-H. This includes the training slides, key concepts and definitions document, and viewing the videos that show a representative slice of the SWSCD population.

**Please skip to next page for Round 2 guidance → → → → → → →**

## **Round 2 Guidance:**

### **Directions:**

1. Access to and reviewing standards in the DIR will work exactly the same way as Round 1.  
Login to <https://www.brtitemreview.com>, confirm it is the correct content area and grand-band, and review all resources to help frame and hone your thinking.
2. Complete your review, saving all responses, and stopping and starting as needed to maintain focus, attentiveness, and consistency in your responses.
3. Complete Round 2 by Sunday, October 11<sup>th</sup>.

**Round 2 Goal:** Carefully reconsider Round 1 review results, and begin to resolve observed differences between teacher ratings.

For Round 2, you will rate only those VESOL and LMH parameters for which disagreements were observed b/t the three teachers in a given content area/grade-band (e.g., two teachers in the Elem Science rated accessibility of a Grade 5 VESOL as 'Yes', a third rated it as 'No').

As a basis for Round 2, each teacher has been provided a personalized report (in the form of a .csv spreadsheet). The report shows all ratings and rationale/recommendation comments for each VESOL for which disagreements were observed.

4. Use your personalized report as a basis for completing Round 2:
  - a. Match the item\_id in the report (column B) to that in the DIR (upper left list),
  - b. Note the question # in the report (column C) to that in the DIR (review questions),
  - c. Note your rating along with the ratings of the other two teachers in your grade-band (columns E – G), and then,
  - d. Carefully read all comments provided by you and other teachers (columns H – J).

A portion of a high school ELA report is shown, below.

A	B	C	D	E	F	G	H	I	J
1 content	item_id	question	grade						
2 Reading & Writing	VESOL_READC_01	Q1	High	1	2	1 I rated this well! Linkage: Regarding Students may not kn			
3 Reading & Writing	VESOL_READC_02	Q1	High	1	2	1 I put this for the linkage: Same fe Maybe change the w			
4 Reading & Writing	VESOL_READC_03	Q3	High	Yes	No	Yes	I rated question Linkage: When I		
5 Reading & Writing	VESOL_READC_03	Q5	High	No	Yes	Yes	I rated question Linkage: When I		
6 Reading & Writing	VESOL_READC_04	Q1	High	2	1	1 I rated question Similar			
7 Reading & Writing	VESOL_READC_04	Q3	High	Yes	No	Yes	I rated question Similar		
8 Reading & Writing	VESOL_READC_04	Q5	High	No	Yes	Yes	I rated question Similar		
9 Reading & Writing	VESOL_READC_05	Q1	High	2	2	1 Complexity: If			
10 Reading & Writing	VESOL_READC_05	Q5	High	No	Yes	Yes	Complexity: If		
11 Reading & Writing	VESOL_READC_06	Q1	High	2	1	1 Same feedback			
12 Reading & Writing	VESOL_READC_06	Q5	High	No	Yes	Yes	Same feedback		
13 Reading & Writing	VESOL_READC_07	Q1	High	2	2	1 Would each pass Complexity: If high complexity for pre			
14 Reading & Writing	VESOL_READC_07	Q5	High	No	Yes	Yes	Would each pass Complexity: If high complexity for pre		
15 Reading & Writing	VESOL_READC_08	Q1	High	2	1	1 I struggled with Accessibility: are these supposed to in			
16 Reading & Writing	VESOL_READC_08	Q2	High	No	Yes	Yes	I struggled with Accessibility: are these supposed to in		
17 Reading & Writing	VESOL_READC_09	Q1	High	2	2	1 Would each pass Same as			
18 Reading & Writing	VESOL_READC_09	Q2	High	No	Yes	Yes	Would each pass Same as		
19 Reading & Writing	VESOL_WFOC_01	Q1	High	2	2	1 Would each pass Should high com: Maybe take out claim			
20 Reading & Writing	VESOL_WFOC_01	Q5	High	No	Yes	Yes	Would each pass Should high com: Maybe take out claim		
21 Reading & Writing	VESOL_WFOC_02	Q1	High	1	2	1 Would each pass Linkage: For _____ Maybe say..... Ident			
22 Reading & Writing	VESOL_WFOC_02	Q5	High	No	Yes	Yes	Would each pass Linkage: For _____ Maybe say..... Ident		
23 Reading & Writing	VESOL_WFOC_03	Q1	High	1	2	1 Would each pass Linkage: For high Maybe say identify a			
24 Reading & Writing	VESOL_WFOC_03	Q5	High	No	Yes	Yes	Would each pass Linkage: For high Maybe say identify a		
25 Reading & Writing	VESOL_WFOC_04	Q1	High	2	2	1 Would each pass Low: Even the Maybe reward Ident			

If you have questions, concerns, or encounter any technical difficulties at any point, please email: Shawn ([pirvin@uoregon.edu](mailto:pirvin@uoregon.edu)) and Sev ([stindal@uoregon.edu](mailto:stindal@uoregon.edu)).

#### **Appendix 3.D.4**

#### **Special Education (SPED) Teacher Review & Validation Study**

#### **Average Linkage Ratings — Round 2 VESOL**

### Round 2 Mean Linkage Ratings by VESOL

<b>Content</b>	<b>VESOL ID</b>	<b>Mean Rating</b>
<b>Math</b>	VESOL_M033.12A	1.33
<b>Math</b>	VESOL_M033.15A	1.33
<b>Math</b>	VESOL_M033.1A	1.33
<b>Math</b>	VESOL_M033.1B	1.33
<b>Math</b>	VESOL_M033.1C	1.33
<b>Math</b>	VESOL_M033.2A	1.00
<b>Math</b>	VESOL_M033.2B	1.00
<b>Math</b>	VESOL_M033.2C	1.00
<b>Math</b>	VESOL_M033.4A	1.33
<b>Math</b>	VESOL_M033.4C	1.33
<b>Math</b>	VESOL_M033.7B	1.33
<b>Math</b>	VESOL_M033.8A	1.33
<b>Math</b>	VESOL_M033.9A	1.00
<b>Math</b>	VESOL_M044.10A	1.33
<b>Math</b>	VESOL_M044.10B	1.00
<b>Math</b>	VESOL_M044.1A	1.33
<b>Math</b>	VESOL_M044.1B	1.67
<b>Math</b>	VESOL_M044.2A	1.00
<b>Math</b>	VESOL_M044.2B	0.67
<b>Math</b>	VESOL_M044.2C	1.00
<b>Math</b>	VESOL_M044.3A	0.67
<b>Math</b>	VESOL_M044.3B	0.67
<b>Math</b>	VESOL_M044.3C	1.33
<b>Math</b>	VESOL_M044.4A	1.00
<b>Math</b>	VESOL_M044.4B	1.33
<b>Math</b>	VESOL_M044.4C	1.33

<b>Math</b>	VESOL_M044.4D	1.00
<b>Math</b>	VESOL_M044.5A	1.33
<b>Math</b>	VESOL_M044.5C	1.00
<b>Math</b>	VESOL_M044.6A	1.33
<b>Math</b>	VESOL_M044.8C	1.33
<b>Math</b>	VESOL_M044.8D	1.33
<b>Math</b>	VESOL_M055.14B	1.33
<b>Math</b>	VESOL_M055.16A	1.00
<b>Math</b>	VESOL_M055.17A	1.33
<b>Math</b>	VESOL_M055.17B	1.33
<b>Math</b>	VESOL_M055.17C	1.33
<b>Math</b>	VESOL_M055.19A	1.00
<b>Math</b>	VESOL_M055.2B	1.00
<b>Math</b>	VESOL_M055.3A	1.00
<b>Math</b>	VESOL_M055.5B	1.00
<b>Math</b>	VESOL_M055.6B	1.33
<b>Math</b>	VESOL_M055.8B	1.33
<b>Math</b>	VESOL_M055.9A	1.33
<b>Math</b>	VESOL_M066.11A	1.00
<b>Math</b>	VESOL_M066.12A	1.00
<b>Math</b>	VESOL_M066.14A	1.33
<b>Math</b>	VESOL_M066.2A	1.00
<b>Math</b>	VESOL_M066.3A	1.00
<b>Math</b>	VESOL_M066.3B	1.00
<b>Math</b>	VESOL_M066.5A	0.67
<b>Math</b>	VESOL_M066.5C	1.00
<b>Math</b>	VESOL_M066.6A	1.33
<b>Math</b>	VESOL_M066.6B	0.67

<b>Math</b>	VESOL_M066.7C	1.00
<b>Math</b>	VESOL_M066.8A	1.00
<b>Math</b>	VESOL_M077.10A	1.00
<b>Math</b>	VESOL_M077.10B	1.00
<b>Math</b>	VESOL_M077.1A	1.00
<b>Math</b>	VESOL_M077.1C	1.00
<b>Math</b>	VESOL_M077.1E	1.00
<b>Math</b>	VESOL_M077.8A	1.00
<b>Math</b>	VESOL_M077.9A	1.00
<b>Math</b>	VESOL_M088.11A	1.00
<b>Math</b>	VESOL_M088.13A	1.00
<b>Math</b>	VESOL_M088.14A	1.33
<b>Math</b>	VESOL_M088.15A	0.67
<b>Math</b>	VESOL_M088.16A	1.00
<b>Math</b>	VESOL_M088.16B	1.00
<b>Math</b>	VESOL_M088.16E	1.00
<b>Math</b>	VESOL_M088.3A	1.00
<b>Math</b>	VESOL_M088.6A	1.00
<b>Math</b>	VESOL_M088.7A	1.00
<b>Math</b>	VESOL_M088.9A	1.00
<b>Math</b>	VESOL_MA.1B	1.67
<b>Math</b>	VESOL_MA.2A	1.67
<b>Math</b>	VESOL_MA.2B	1.67
<b>Math</b>	VESOL_MA.3A	2.00
<b>Math</b>	VESOL_MA.4A	1.67
<b>Math</b>	VESOL_MA.4E	1.67
<b>Math</b>	VESOL_MA.5A	1.67
<b>Math</b>	VESOL_MA.7A	1.67

<b>Math</b>	VESOL_MA.7D	1.67
<b>Math</b>	VESOL_MA.7F	1.67
<b>Math</b>	VESOL_MA.8	1.67
<b>Math</b>	VESOL_MA.9	1.67
<b>Reading</b>	VESOL_R03_01	1.00
<b>Reading</b>	VESOL_R03_02	1.00
<b>Reading</b>	VESOL_R03_03	1.67
<b>Reading</b>	VESOL_R03_04	1.67
<b>Reading</b>	VESOL_R03_05	1.33
<b>Reading</b>	VESOL_R03_06	1.33
<b>Reading</b>	VESOL_R03_07	1.33
<b>Reading</b>	VESOL_R03_08	1.33
<b>Reading</b>	VESOL_R03_09	1.33
<b>Reading</b>	VESOL_R03_10	2.00
<b>Reading</b>	VESOL_R04_01	1.67
<b>Reading</b>	VESOL_R04_02	1.67
<b>Reading</b>	VESOL_R04_03	0.67
<b>Reading</b>	VESOL_R04_04	1.33
<b>Reading</b>	VESOL_R04_05	1.67
<b>Reading</b>	VESOL_R04_06	1.67
<b>Reading</b>	VESOL_R04_07	2.00
<b>Reading</b>	VESOL_R04_08	1.67
<b>Reading</b>	VESOL_R04_09	0.67
<b>Reading</b>	VESOL_R05_01	1.00
<b>Reading</b>	VESOL_R05_02	1.00
<b>Reading</b>	VESOL_R05_03	1.00
<b>Reading</b>	VESOL_R05_04	1.00
<b>Reading</b>	VESOL_R05_05	2.00

<b>Reading</b>	VESOL_R05_06	2.00
<b>Reading</b>	VESOL_R05_07	1.00
<b>Reading</b>	VESOL_R05_08	1.33
<b>Reading</b>	VESOL_R06_01	1.00
<b>Reading</b>	VESOL_R06_02	1.33
<b>Reading</b>	VESOL_R06_06	2.00
<b>Reading</b>	VESOL_R06_08	1.00
<b>Reading</b>	VESOL_R07_01	1.00
<b>Reading</b>	VESOL_R07_03	1.67
<b>Reading</b>	VESOL_R07_04	1.33
<b>Reading</b>	VESOL_R07_07	1.33
<b>Reading</b>	VESOL_R07_08	1.33
<b>Reading</b>	VESOL_R08_01	2.00
<b>Reading</b>	VESOL_R08_02	2.00
<b>Reading</b>	VESOL_R08_03	2.00
<b>Reading</b>	VESOL_R08_04	1.00
<b>Reading</b>	VESOL_R08_06	1.33
<b>Reading</b>	VESOL_R08_07	1.00
<b>Reading</b>	VESOL_R08_08	1.00
<b>Reading</b>	VESOL_R08_09	1.33
<b>Reading</b>	VESOL_REOC_01	1.33
<b>Reading</b>	VESOL_REOC_02	1.33
<b>Reading</b>	VESOL_REOC_03	1.00
<b>Reading</b>	VESOL_REOC_04	1.00
<b>Reading</b>	VESOL_REOC_05	1.67
<b>Reading</b>	VESOL_REOC_06	1.67
<b>Reading</b>	VESOL_REOC_07	1.67
<b>Reading</b>	VESOL_REOC_08	1.67

<b>Reading</b>	VESOL_REOC_09	1.67
<b>Science</b>	VESOL_4.2_1_A-C	2.00
<b>Science</b>	VESOL_4.2_2_A-C	1.67
<b>Science</b>	VESOL_4.4A-C	1.00
<b>Science</b>	VESOL_4.5A-C	1.00
<b>Science</b>	VESOL_4.6_1_A-D	1.33
<b>Science</b>	VESOL_4.6_2_A-D	1.33
<b>Science</b>	VESOL_4.7A-C	1.33
<b>Science</b>	VESOL_4.8A-D	1.67
<b>Science</b>	VESOL_5.3A-E	2.00
<b>Science</b>	VESOL_5.4A-E	1.33
<b>Science</b>	VESOL_5.5A-D	1.33
<b>Science</b>	VESOL_5.6A-D	2.00
<b>Science</b>	VESOL_5.7_1_A-C	1.33
<b>Science</b>	VESOL_5.8A-E	1.67
<b>Science</b>	VESOL_6.2_2_A-D	1.33
<b>Science</b>	VESOL_6.4A-D	2.00
<b>Science</b>	VESOL_6.6A-F	1.00
<b>Science</b>	VESOL_6.7A-F	1.00
<b>Science</b>	VESOL_6.8A-D	1.33
<b>Science</b>	VESOL_6.9_2_A-F	1.33
<b>Science</b>	VESOL_BIO.2_1_A-E	1.33
<b>Science</b>	VESOL_BIO.2_2_A-E	1.00
<b>Science</b>	VESOL_BIO.4A-E	1.33
<b>Science</b>	VESOL_BIO.5A-B	1.33
<b>Science</b>	VESOL_BIO.6A-F	1.00
<b>Science</b>	VESOL_BIO.7_1_A-D	1.33
<b>Science</b>	VESOL_BIO.7_2_A-D	1.33

<b>Science</b>	VESOL_BIO.8_1_A-D	1.00
<b>Science</b>	VESOL_BIO.8_2_A-D	1.33
<b>Science</b>	VESOL_LS.10_1_A-C	1.00
<b>Science</b>	VESOL_LS.10_2_A-C	1.33
<b>Science</b>	VESOL_LS.3A-C	1.67
<b>Science</b>	VESOL_LS.4_1_A-B	2.00
<b>Science</b>	VESOL_LS.4_2_A-B	1.00
<b>Science</b>	VESOL_LS.6A-D	2.00
<b>Science</b>	VESOL_LS.7A-B	2.00
<b>Science</b>	VESOL_PS.2A-C	1.67
<b>Science</b>	VESOL_PS.3A-D	1.67
<b>Science</b>	VESOL_PS.5A-C	2.00
<b>Science</b>	VESOL_PS.6A-D	1.00
<b>Science</b>	VESOL_PS.8_2_A-B	2.00

### **Appendix 3.D.5**

#### **Special Education (SPED) Teacher Review & Validation Study**

##### **Average Linkage Ratings — Round 2 Teacher Reviewers**

### Round 2 Reviewer Summaries

<b>Content</b>	<b>Reviewer</b>	<b>Mean Rating</b>
<b>Math</b>	8	2.00
<b>Math</b>	9	1.92
<b>Math</b>	6	0.90
<b>Math</b>	2	1.61
<b>Math</b>	1	0.98
<b>Math</b>	5	1.00
<b>Math</b>	4	1.10
<b>Math</b>	3	0.95
<b>Math</b>	7	1.17
<b>Reading</b>	11	1.70
<b>Reading</b>	17	1.43
<b>Reading</b>	18	1.00
<b>Reading</b>	14	1.48
<b>Reading</b>	10	1.11
<b>Reading</b>	15	1.29
<b>Reading</b>	16	1.71
<b>Reading</b>	13	1.15
<b>Reading</b>	12	1.33
<b>Science</b>	19	1.93
<b>Science</b>	25	1.78
<b>Science</b>	27	1.00
<b>Science</b>	26	0.89
<b>Science</b>	21	0.79
<b>Science</b>	20	1.79
<b>Science</b>	22	1.67
<b>Science</b>	23	1.44
<b>Science</b>	24	1.44

**Appendix 3.D.6**

**Special Education (SPED) Teacher Review & Validation Study —**

**Resolution Guidance Document**

**Key Themes as Guides to Discussion and Resolution  
Virginia Alternate Assessment Teacher Review and Validation Study  
Fall 2020**

**Round 1 - 2 General Key Themes:**

- 1. The population of students with significant cognitive disabilities (SWSCD) includes a wide range of abilities and performance possibilities — alternate academic standards offer opportunities for these students to learn academic content, opportunities for us to help them grow their knowledge and skill.**

There is great diversity and a wide range of academic abilities and accessibility needs across the SWSCD population. The alternate academic standards we are co-developing are inherently forward-looking and define potential opportunities for SWSCD to learn academic content. They are intentionally broad, and elaborated at three levels of complexity, to offer teachers the capacity to differentiate and meet individual student learning needs in their classrooms.

Taken together, teachers' experience, training, and expertise provide important context for examining and rating VESOL and L-M-H. They should help frame how the standards might be implemented in classrooms—how they might be viewed as providing a broad framework for academic instruction and testing.

- 2. Accommodations and learning supports will be provided during any state testing—relevant accommodations and supports (e.g., augmented communication devices, calculators, universally-designed illustrations) should be thought of as allowable and available for instruction and testing when considering the quality of VESOL and L-M-H.**
- 3. Linkage is not alignment and is not intended to be.**

True one-to-one alignment of academic content between the parent Standard of Learning (SOL) and the VESOL would result in academic expectations that are far too difficult and complex for SWSCD.

Linkage is the strength of connection with original SOL, *after being reduced in depth, breadth, and complexity*. The new Virginia Alternate Assessment program exists as a separate system with separate intentions from the SOL Assessment — to reduce the depth, breadth and complexity of grade-level academic standards so that SWSCD have access to viable and diverse opportunities to learn grade-level content.

This means that VESOL look quite different from original SOL. In order to be sufficiently linked, there needs to be a recognizable connection between the content in the VESOL and *some aspect of the content* in the target SOL—not all aspects—at least one, and possibly more than one.

**4. Carefully consider each review construct independently.**

*Linkage, accessibility, and appropriateness/relevance* are different constructs and should be considered and discussed independently when considering how VESOL or L-M-H complexity parameters might need adjusted to meet student and teacher needs. A potential weakness in one area does not mean others are also weak. This means that for the purpose of resolving remaining differences during the virtual meeting, if you think that VESOL and/or L-M-H parameter is insufficient in more than one construct (i.e., you gave multiple ‘No’ responses, you should be able to provide a distinct rationale for each.

**5. Carefully consider VESOL from L-M-H parameters independently when rating accessibility and appropriateness/relevance.**

A VESOL might be appropriate/relevant, however, the way in which the content is elaborated into different performance demands in the L-M-H parameters might not be when considering the broad population of SWSCD. Because the appropriateness/relevance of set of L-M-H parameters might need improved in some way, that does not necessarily mean the parent VESOL is inappropriate or that it does not link to the original SOL.

**6. Rationale and recommendations need expanded and explained in spots.**

There are ratings of ‘0’ or ‘No’ for both Round 1 and Round 2 that were not accompanied by a rationale or a recommendation. Commenting that something is inaccessible or not practical does not explain *why* this is so for the broader SWSCD population. Nor does it explain how weak aspects might be improved. Having actionable rationale and recommendations will be crucial for a fruitful discussion and resolving remaining differences.

Rationale should be specific, succinct, and constructive. Actionable suggestions for revision of VESOL and/or L-M-H parameters that you deem weak in linkage, accessibility, and/or appropriateness/relevance is valuable.

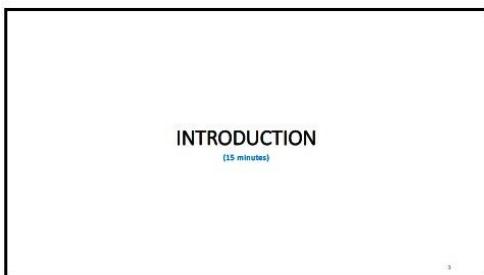
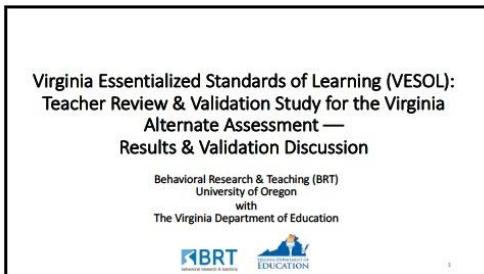
**7. Content area and grade-band specific themes will be introduced and serve as a basis of discussion in the specific Zoom breakout rooms described in email. The general key themes described above should be considered over-arching the more specific themes that will be discussed in smaller groups.**

**Appendix 3.D.7**

**Special Education (SPED) Teacher Review & Validation Study —**

**Resolution Meeting Slides**

10/27/20



10/27/20

**Thank you, Teachers!!**

Teacher input is crucial to building an alternate assessment system that is accessible and appropriate/relevant for our SWS...that gives them an opportunity to learn and demonstrate proficiency toward grade-level academic content.

Development and validation of the Virginia Essentialized Standard of Learning (VESOL) is an ongoing process that requires collaboration b/t VDOE, teachers, test developers, and researchers to successfully build and implement the essentialized standards in Virginia.

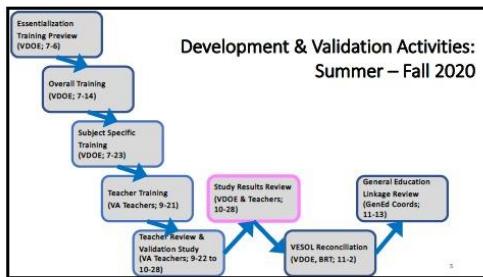
---

---

---

---

---




---

---

---

---

---

**Round 1 & 2 — Consensus & Helpful Feedback!**

- 227 VESOL + 681 L-M-H Parameters Reviewed
- 6,240 individual ratings + comments
- Broad Consensus & Agreement across VESOL / L-M-H
- Rationale & Recommendations are Constructive and Actionable
- ➔ Provide a roadmap for thoughtful and evidence-based revision of the essentialized standards and complexity parameters
- ➔ Yield key themes around which our conversation today will revolve

---

---

---

---

---

10/27/20

### Goals for Today's Meeting

1. To take a positive, forward-thinking, opportunity-to-learn focused approach to conversation centered around key themes that emerged from review data.
2. To glean actionable and constructive feedback that will allow tweaks to VESOL / L-M-H in ways we know will work for our student and teacher populations—e.g., in terms of testing & instruction.
3. To allow teachers to walk away knowing their voices are valued and heard and that they are an important collaborator during ongoing standard development and validation.

---



---



---



---



---



---

### Breakout Workgroup Discussion — Organization, Process, & Timing

Breakout Room (grade & teachers)	BRT Facilitator	VDOE Observer	Teacher Assignments
ELA (elem + ms + hs)	JT	Deborah	Brittany, Kaya, Tonya, Kelsie, Kasey, Tina, Rachel, Jacqueline, and Erin
Math (elem + 2 hs)	Brock	Sharon	Jennifer, Hannah, Rebecca, Chris (hs), and Teresa (hs)
Math (ms + 1 hs)	Joe	Lia	Lorna, Patricia, Furth, and Dawn (hs)
Science (elem + 1 hs)	Shawn	Leslie	Beth, Michelle, Kristine, and Joseph (hs)
Science (ms + 2 hs)	Sev	Frank	Stephanie, Patty, Victoria, Kristina (hs), and Cheryl (hs)

---



---



---



---



---



---

### Breakout Workgroup Discussion — Organization, Process, & Timing cont.

- Discussion-based, collaborative, and democratic
- Driven by “Overarching Key Themes” (re: support doc sent Friday)
- (1) Content area / Grade-band Specific Theme → (2) VESOL / L-M-H Application → (3) Discussion & Decision-Making
- We'll have about 90 minutes to reach the 3 goals detailed earlier
  - Positive, forward-thinking, opportunity-to-learn focused approach
  - Actionable and constructive feedback
  - Teachers recognized as important collaborators
- Please be prepared to share takeaways from your Breakout

---



---



---



---

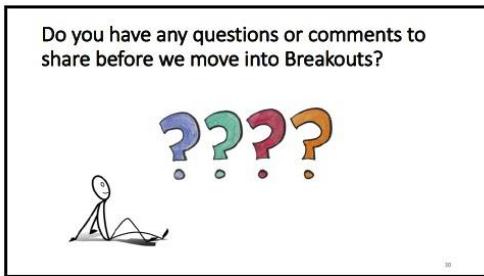


---



---

10/27/20



---

---

---

---

---



---

---

---

---

---



---

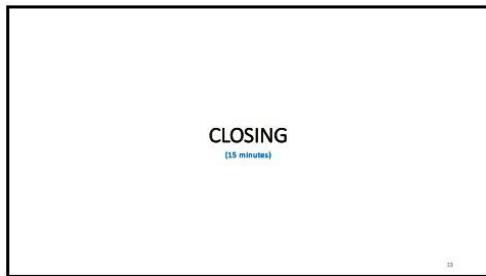
---

---

---

---

10/27/20



---

---

---

---

---

A slide titled "Breakout Wrap-up" featuring a cartoon character and a list of "Team Takeaways".

Breakout Wrap-up

Team Takeaways:

- ELA
- Math
  - Elem + HS
  - MS + HS
- Science
  - Elem + HS
  - MS + HS

14

---

---

---

---

---

A slide titled "Teacher Evaluation Survey" with a purpose statement, a list of instructions, and a survey interface image.

Teacher Evaluation Survey

Purpose: Glean feedback from teachers to improve the review and validation process

- Anonymous
- 5 minutes to complete
- Last task to complete your participation in the study and receive compensation
- Check your email for secure link

SURVEY

15

---

---

---

---

---

10/27/20

**Compensation**

Deborah Johnson  
[deborah.johnson@doe.virginia.gov](mailto:deborah.johnson@doe.virginia.gov)



Complete evaluation survey — we'll let Deborah know — she will let your Regional TTACs know compensation can be disbursed

16

---

---

---

---

---

---

Thank you!! We enjoyed working with you! Please look for future opportunities to collaborate with Virginia Alternate Assessment.

Do you have any last questions or comments you'd like to share?



BRT  
Virginia Department of Education

17

---

---

---

---

---

---

### **Appendix 3.E.1**

#### **SPED Teacher Review Evaluation — Survey Results**

**Virginia Alternate Assessment Program (VAAP)**  
**Teacher Review & Validation Study: VESOL Development & Validation**  
**Teacher Evaluation Survey**  
**Fall 2020**

**Summary of Participants & Results**

Educators:  $n = 27$   
Response Rate: 100%  
Completion Rate: 100%  
Recorded Dates: 10-28-20 to 10-30-20

**Survey Participants**

In early September, VDOE personnel recruited teachers to represent all eight regions of Virginia, and dozens of school divisions, with a total of 27 participating in the training and essentialization and linkage review process. Teachers held a variety of current positions, with all of them teaching in classrooms serving SWSCD or generic special education. All teachers had considerable experience teaching SWSCD, with 17 teachers having over 10 years of experience ( $M = 13.96$  years; *Median* = 13 years; *Range* = 3 to 28 years). Most teachers taught across multiple grades and content areas, including in elementary, middle school, and/or high school settings in reading and language arts, mathematics, science, and social studies over the past couple of years. All 27 teachers had at least one bachelor's degree in education, special education, or education-related field; 17 teachers also had master's degrees. All 27 teachers had certificates and/or endorsements in specific disabilities (emotional, intellectual, autism, specific learning) and grade levels (early education, elementary, middle school, and/or high school). Five teachers also had an administrative and/or supervision endorsement. Of the 27 teachers, the vast majority were females ( $n = 24$ ) and white ( $n = 23$ ), with three teachers identifying as Black or African American and one as Asian, and no teachers indicating they were of Hispanic ethnicity. Teachers' personal statements highlighted expertise in teaching academic content to students with significant cognitive disabilities, with many emphasizing development and use of adapted curriculum, behavioral supports, and embedded functional life skills (see Appendix 3.A.1 — *Appendix3A1\_VAAP\_SPEDStudyParticipants.pdf*).

**Survey Method and Data Collection**

We designed the short survey to gather feedback from educators who participated in the Virginia Essentialized Standards of Learning (VESOL) Teacher Review & Validation Study on the quality of training, support, and design. The survey consisted of four selected-response prompts, each with dichotomous response options, and three constructed-response/open-ended prompts designed to elicit constructive feedback associated with each selected-response prompt. A fourth constructed-response/open-ended prompt at the end of the survey asked participating educators to give any additional comments about their experience as part of the study. The survey was conducted securely via the University of Oregon's Qualtrics Survey Software (<https://oregon.qualtrics.com>), with all responses collected and stored anonymously to encourage honesty and constructive/critical feedback from participating educators.

Below, we present the survey and associated results organized in the order that prompts were presented to study participants. Representative quotes are included and grouped based on patterns of constructive/critical comments and recommendations. For example, open-ended

responses that were overly general have been removed. Synthesis of responses are presented in the main body of the *Technical Report on the Development of the Virginia Essentialized Standards of Learning (VESOL)* and in the main VAAP technical report.

### **Survey and Results**

**Welcome:** Thank you for participating in the Teacher Review & Validation Study! The ratings and feedback you provided will help us improve the Virginia Essentialized Standards of Learning (VESOL) for students with significant cognitive disabilities as part of the ongoing development and validation process.

**Directions:** To complete participation in the study, please take this short evaluation survey. The survey should take you about 5 minutes to complete and your responses are anonymous. The multiple-choice prompts are required. You may also give additional context and recommendations in the text boxes provided, with only the final prompt being required. Your responses will help improve the ongoing review and validation process.

Question Text	Response Counts (%)
<b>Q2</b> – Rate the training you received for completing your review assignments.	Adequate = 26 (96%) Inadequate = 1 (4%)
<b>Q3</b> – Rate the support you received for completing your review assignments (e.g., key concepts and takeaways documents, resources in DIR, follow-up emails and Zoom meetings).	Adequate = 26 (96%) Inadequate = 1 (4%)
<b>Q4</b> – Please give any recommendations for improving the training and/or support you received.	**see quotes, below

#### **Training-related comments (see Q2):**

More explanation on this would be beneficial. Also ensuring they understand how to rate the VESOL and the LMH separately. Also I think initially there was a lack of explanation on how the assessment will work that may have impacted the way some thought about the LMH.

The language used in the directions for completing the assignments was full of educational jargon. Even though it's language we are familiar with... simply from earning our degrees and certs....it still makes processing more difficult than it needs to be. Y'all are in the higher educational setting and you're doing some serious [work] that involves grants and whatnot...so I get it...you gotta sound pro, but it's a lot for overworked folk living through what feels like the end of the world. You gave plenty of follow up Q&A opportunities so that was great. BUT you wouldn't have needed so much had the language been simpler.

I think it was great! Shawn was very quick to respond to any questions! The only suggestion I have is during the 1st training to let the people reviewing know that the SOLs (or whatever standards) may be covered through several VESOLs (or whatever standards). This was not clear to me so I rated some lower and then had to go back and change them after seeing it was addressed through a different VESOL.

#### **Support-related comments (see Q3):**

Felt that my thoughts and feelings were not taken into consideration until the last session and then the info I put on the spreadsheet was not even reviewed; it was a big gut wrenching to see that other groups review the feedback and goals

I think if we could have a session where you can meet with the group you are working with to discuss that might be nice.

It would have been helpful to have the VESOL questions available when we were asked to review our answers before our October 28th meeting. The Excel spreadsheet was helpful, but I felt as if though I need the VESOL's too.

I think it would have been beneficial to talk to each other between Round 1 and 2 and then again after Round 2.

The team responded immediately with support for any questions I had. They were extremely helpful!

I think many teachers seemed to not understand the difference between linkage and alignment before completing the first round so

I was very confused about what was wanted for our final meeting. I'm not sure that was fully communicated.

Having hard copies of the VESOL's, L, M, H, and Standard SOL would be helpful - maybe we just need to cut and paste to create this. It would have been easier to reference when going back and forth.

<b>Question Text</b>	<b>Response Counts (%)</b>
<b>Q5</b> – Rate the usefulness of the Distributed Item Review (DIR) for reviewing and rating the Virginia Essentialized Standards of Learning (VESOL).	Useful = 26 (96%) Not Useful = 1 (4%)
<b>Q6</b> – Please give any recommendations for improving the usefulness of the DIR.	**see quotes, below

**Helpful-related comments:**

It was helpful and it allowed me to see the other teacher's comments.

It was easy to use and understandable.

Email contact one-to-one really helped! Zoom was harder than in person, but we can't help that now!

**Needed additional information/support-related comments:**

I sometimes found it challenging to go between the excel documents and the DIR.

Provide teachers with all of the answers from round one and not just the ones they disagreed on since we have to rerate everything. The two reviews of the same VESOL's was helpful but the spreadsheet was very hard to follow the first time.

Dumb down the language. Use visuals...maybe even short videos. Even though we're educated, our processing is being shaped by the world around us. We get our information these days visually in short bits.

It was helpful however, more precise explanation of the item review.

<b>Question Text</b>	<b>Response Counts (%)</b>
<b>Q7</b> – Rate the overall quality of the Teacher Review & Validation Study.	Adequate = 26 (96%) Inadequate = 1 (4%)
<b>Q8</b> – Please give any recommendations for improving the quality of the standard review process.	**see quotes, below

**Desire for additional access/discussion with colleagues:**

I would like to have been able to meet with the colleagues in my group to discuss their answer choices after we received feedback on our DIR assignments.

I would have appreciated more discussion with my colleagues as we started to review the standards. Overall, I thought the team and committee work was effective, but I wonder if we would have been more focused to have further discussion throughout the process.

The work y'all are doing is essential. You've been available if needed. Aside from some tweaks needed it was great.

Longer time between virtual sessions to collaborate with team members and prepare between sessions.

**General comments/recommendations:**

The recommendations for improving would still be using more teacher friendly language with the standards and be aware of some of the students' accommodations.

I appreciated the week given for each step and the user-friendly aspect of DIR.

It was great to work at our own pace and then come together as a group in the end. I think working as a group helped us to really understand where each of us were coming from. It would have been helpful to have more information on each person involved in regards to what they teach which would help us to understand their thinking process when we are not working directly with one another.

<b>Question Text</b>	<b>Response Counts (%)</b>
<b>Q9</b> – Please share any additional comments about your experience as part of the Teacher Review & Validation Study.	**see quotes, below

**Positive comments:*****Collaboration with colleagues***

I feel like I was “heard”. I appreciate the guidance you all gave and that people were there representing the state department. Thank you.

I thought this was a great opportunity, not only to help review the items, but to be able to really discuss some of them in depth. In the elem math, we were able to see a different perspective when we looked over each [other’s] answers. I enjoyed the breakout rooms so we could actually talk about our thoughts and ideas. Thank you!

I appreciated the opportunity to collaborate with other teachers. Lots of good discussion.

I most enjoyed working in the break out groups with the other teachers. It was nice to hear the perspectives others. I was also happy that the videos included a wide range of student abilities. Most of all I am overjoyed that I was able to be a part of this process and that teacher voice has been taken into account to ensure new standards make sense for my students.

This has been a wonderful experience for me. I enjoyed being part of the study, and hope to be selected again. I really liked how everyone worked together, and all ideas (from those who wanted them to be,) were acknowledged. It was professional, yet comfortable.

I am so thankful for this experience. It opened my eyes to the ideas and thoughts of other special educators that teach my population and their feelings about the assessment we already give and the excitement for the one to come in the future.

***Including teachers in decision-making process***

I liked that I felt our feedback was important. I appreciated the chance to participate in the decision of what testing would look like for our students. Thank you.

I really enjoyed being a part of this! It is something I am invested in and care about!

I enjoyed getting to learn about the VESOL's and where the state is heading in terms of assessment. I think this will streamline assessment and provide both more support and more flexibility for teachers. I feel as if my input was valued.

Thank you for letting me be part of the process. I look forward to further collaboration.

This was helpful in developing functional standards for our students. I felt that as teachers, our voices were heard.

This was a good process and I am hopeful it will benefit the students. I was very impressed by the other teachers participating and by the staff supporting us.

It was great to be involved in this and to be heard from a teacher's standpoint about what the special education population would benefit from.

I have enjoyed this opportunity to participate in this project. The chance to help make changes to the extreme demands that are placed on this population has been very eye opening.

I loved it! I am thankful for the opportunity for teachers to give input as we are the one who will be directly implementing the standards.

I appreciate being a part of this study. So far I like the direction the VESOL is taking and I would love to have input as it progresses.

It was helpful to see the process of determining what questions will be used as well as how they are connected to the SOL.

**Constructive and/or critical comments/recommendations:**

***Study timing and task process***

I would have liked to have been able to complete this project during the summer. It was a challenge for me to teach and give adequate attention to this very important task while teaching full time.

It was enlightening. I enjoyed being part of the experience- almost wish we had what occurred in session 3 before rescorer disagreed upon standards... I think outcomes may have been different - not as much discrepancies

***Clarity of communication and messaging***

When all was said and done, I felt the conversations were helpful. However, I felt the direction of the study changed from review of VESOLs to a broader sense of what was integral and [needed] for an assessment of this population of students.

Until today, I felt that the group leading us did not know what was going on and that the goals selected were not close to Virginia's current SOLs. It was almost like the VA leaders were not [talking] to the Oregon group.

***Policy implications***

No child Left Behind and Common Core destroyed the already failing educational system and this is simply a fresh coat of paint on a failed method of doing things. NONE of the required knowledge will help my students in any way. Our "mission" is to prepare the students for the world and every single second spent re-learning the info, planning, creating the materials for our students who each have their own needs, and teaching is doing a disservice to them, their families, and the community as a whole. What's my non-verbal kid that wears a helmet because of excessive head banging going to do with knowledge of the reasons for westward expansion? or knowing the purpose of a variable in an algebra problem? Sorry, but I have to get that out. All that being said what y'all have done so far is great. You are trying to fix a damaged system and I like where it's headed. I pray that VA agrees and adopts.

***Support documents***

The spreadsheets with our results were extremely hard to view since the end columns were cut off each page and transferred to the next page, which made tracking the results a visual challenge

#### **Appendix 4.B.1**

**General Education Linkage Review & Validation Study — Learner Characteristics Guide**

**UNDERSTANDING THE CHARACTERISTICS OF STUDENTS  
WITH INTELLECTUAL DISABILITY**

Students with significant cognitive disabilities (SWSCD), who are appropriately identified as participating in the Virginia Alternate Assessment Program (VAAP), exhibit characteristics that must be carefully considered when developing academic content that is challenging, accessible, and relevant for their schooling and life after. The following guide is intended to help frame educator and parental thinking around meeting the learning and assessment needs of SWSCD in ways that provide academic challenge and are also accessible and appropriate/relevant to students' school and post-secondary success. Aspects of learner characteristics, adaptive behaviors, and intellectual functioning are presented, below.

**AREA I: LEARNER CHARACTERISTICS**

SWSCD may exhibit some or all of the following characteristics:

1. Communication difficulties that affect self-determination, behavior, social interactions, and participation in multiple learning environments.
2. Uneven learning patterns in all domains including cognition, communication, socialization, and self-help.
3. Multiple disabling conditions concurrent with an intellectual disability, including physical disabilities, sensory challenges, and medical needs that impact health, stamina, and engagement in learning tasks.
4. Motor impairments, in addition to cognitive/developmental delay, that makes participation in routine tasks challenging.
5. Difficulty learning new tasks, maintaining new skills, and generalizing skills to new environments.

6. Individualized methods of accessing information in alternative ways (tactile, visual, auditory, and multi-sensory).

## AREA II: ADAPTIVE BEHAVIOR

The American Association on Intellectual and Developmental Disabilities (AAIDD, 11<sup>th</sup> Edition) and the American Psychiatric Association have defined one component of having an intellectual disability as including at least two or more of the following impairments in adaptive behavior:

1. ***Conceptual Skills:*** Language, reading and writing, money, time, number concepts
2. ***Social Skills:*** Interpersonal skills, social responsibility, self-esteem, gullibility, naïveté, follows rules/obeys laws, avoids being victimized, social problem solving
3. ***Practical Skills:*** Activities of daily living (personal care), occupational skills, use of money, safety, health care, travel/transportation, schedules/routines, use of telephone
4. ***Consideration for Discussion:*** *Students with significant cognitive abilities probably have difficulty both learning most or all of these skills and using or transferring the skills across different settings and/or \*\*Performance on standardized adaptive behavior scales that is at least three standard deviations below the mean.*

**Example:** The Adaptive Behavior Assessment System-II has a mean of 100 and a standard deviation of 15 points. A score of 55 or below would indicate adaptive behavior functioning that is three standard deviations below the mean.

## AREA III: INTELLECTUAL FUNCTIONING

The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) outlines a range of severity, ranging from mild to profound intellectual disabilities.

### ***Mild Intellectual Disability***

- Standard Score Ranges: 50-55 to 70
- DSM-5 Severity Levels based on levels of support required in areas of adaptive

functioning

- *Conceptual Domain:* Difficulties in learning academic skills with support needed in one or more areas to meet age-related expectations.
- *Social Domain:* Displays immaturity in social interactions compared to typically developing peers. Could include difficulty in accurately perceiving peers' social cues, uses concrete communication and language skills, difficulties regulating behavior, limited understanding of risk in social situations, and is at risk for being manipulated by others.
- *Practical Domain:* May function age appropriately in personal care, but need some support with complex daily living tasks in comparison to peers.  
Recreational skills resemble those of age-mates, but require support in judgment related to well-being and organization around recreation.
- **Consideration for Discussion:** The student might not be considered to have significant cognitive disabilities. Other factors should be considered such as impact from communication skills, sensory disabilities, and physical disabilities.

#### ***Moderate Intellectual Disability***

- Standard Score Ranges: 35-40 to 50-55
- DSM-5 Severity Levels based on levels of support required in areas of adaptive functioning:
  - *Conceptual Domain:* Conceptual skills lag markedly behind those of peers. Progress in academic skills occurs slowly across the school years and is markedly limited compared with that of peers. Ongoing assistance on a daily basis is needed to complete conceptual tasks of day-to-day life.
  - *Social Domain:* Displays marked differences from peers in social and communicative behavior across development. Spoken language is typically a primary tool for social communication but is much less complex than that of peers. Capacity for relationships is evident but individuals may not perceive or interpret social cues accurately. Social judgment and decision-making abilities are limited and caretakers must assist the person with life decisions. Communication and social limitations affect friendships with typically developing peers and

significant social and communicative support is needed in work settings for success.

- *Practical Domain:* Can care for personal needs involving eating, dressing, elimination, and hygiene although an extended period of teaching and time is needed for the individual to become independent in these areas, and reminders may be needed. Participation in all household tasks can be achieved by adulthood, although an extended period of teaching is needed, and ongoing supports will typically occur for adult-level performance. Independent employment in jobs that require limited conceptual and communication skills can be achieved, but considerable support from co-workers, supervisors, and others is needed to manage social expectations, job complexities, and ancillary responsibilities such as scheduling, transportation, health benefits, and money management. A variety of recreational skills can be developed but typically require additional supports and learning opportunities over an extended period of time. Maladaptive behavior is present in a significant minority and causes social problems.
- **Consideration for Discussion:** *\*\*Performance on standardized intelligence tests that represent at least three standard deviations from the mean IQ score. These scores may indicate that a student has significant cognitive disabilities.*

#### ***Severe Intellectual Disability***

- Standard Score Ranges: 25 to 35-40
- DSM-5 Severity Levels based on levels of support required in areas of adaptive functioning:
  - *Conceptual Domain:* Attainment of conceptual skills is limited and generally there is little understanding of written language or of concepts involving numbers, quantity, time, and money. Caretakers provide extensive supports for problem solving throughout life.
  - *Social Domain:* Spoken language is limited in terms of vocabulary and grammar. Speech may be single words or phrases and may be supplemented through augmentative means. Speech and communication are focused on the here and now within everyday events. Language is used for social communication more than for

explaining things, and there is understanding of simple speech and gestural communication. Relationships with family members and familiar others are a source of pleasure and help.

- *Practical Domain:* Requires support for all activities of daily living, including meals, dressing, bathing, and elimination and requires supervision at all times. Cannot make responsible decisions regarding well-being of self or others. Skill acquisition in all domains involves long-term teaching and ongoing support. Maladaptive behavior, including self-injury is present in a significant minority.
- **Consideration for Discussion:** *\*\*Performance on standardized intelligence tests that represent at least three standard deviations from the mean IQ score. These scores may indicate that a student has significant cognitive disabilities.*

#### ***Profound Intellectual Disability***

- Standard Score Ranges: Below 20-25
- DSM-5 Severity Levels based on levels of support required in areas of adaptive functioning:
  - *Conceptual Domain:* Skills generally involve the physical world rather than symbolic processes. May use objects in goal-directed fashion for self-care, work and recreation. Certain visuospatial skills, such as matching and sorting based on physical characteristics may be acquired. However, co-occurring motor and sensory impairments may prevent functional use of objects.
  - *Social Domain:* Has very limited understanding of symbolic communication in speech or gesture. May understand some simple instructions or gestures. May express own desires and emotions largely through nonverbal, nonsymbolic communication. Enjoys relationships with well-known family members, caretakers, and familiar others, and initiates and responds to social interactions through gestural and emotional cues. Co-occurring sensory and physical impairments may prevent many social activities.
  - *Practical Domain:* Dependent on others for all aspects of daily physical care, health, and safety, although may be able to participate in some of these activities as well. Individuals without severe physical impairments may assist with some

daily work tasks at home. Simple actions with objects may be the basis of participation in some vocational activities with high levels of ongoing support. Recreational activities may involve, for example, enjoyment in listening to music, watching movies, going out for walks, or participating in water activities, all with the support of others. Co-occurring physical and sensory impairments are frequent barriers to participation (beyond watching) in home, recreational, and vocational activities. Maladaptive behavior is present in a significant minority.

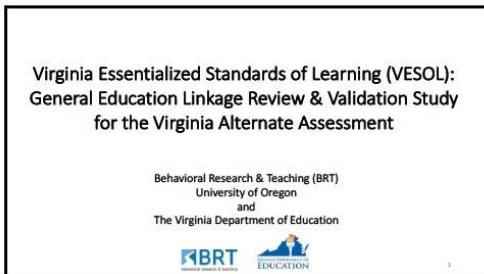
- **Consideration for Discussion:** *\*\*Performance on standardized intelligence tests that represent at least three standard deviations from the mean IQ score. These scores may indicate that a student has significant cognitive disabilities.*

\*\*Note: Section 200.1 in the Notice of Proposed Rule Making in the Federal Register on March 20, 2003, proposed defining “students with the most significant cognitive disabilities” as students with disabilities under the IDEA whose intellectual functioning and adaptive behavior are three or more standard deviations below the mean.

## **Appendix 4.B.2**

### **General Education Linkage Review & Validation Study — Training Slides**

11/12/20



---

---

---

---

---

---



---

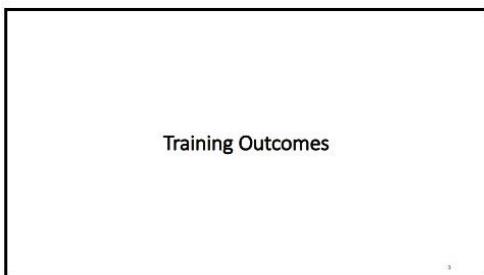
---

---

---

---

---



---

---

---

---

---

---

11/12/20

**Training Outcomes (4)**

1. **Understanding the “1% Student Population”**
2. **Essentialization Process** – Reducing Standards of Learning (SOL) in depth, breadth, and complexity to create Virginia Essentialized Standards of Learning (VESOL) that are linked to general content, and accessible and relevant for student population
3. **Essentialization Operationalized** – Essentialized assessment frameworks (EAF), made up of SOL, VESOL, & Low – Med – High complexity parameters
4. **Linkage Review & Validation Study** – What is linkage? What are the 3 levels of linkage? How do I make linkage judgments using the Distributed Item Review (DIR)?

---

---

---

---

---

---

**Student Population —  
Students with Significant Cognitive  
Disabilities (SWSCD)  
“1% Population”**

---

---

---

---

---

---

**Students with Significant Cognitive Disabilities  
(SWSCD) Population**

- CJ – higher functioning (verbal, reads, writes) student with significant cognitive disabilities (0:00 to 0:20)  
[https://drive.google.com/file/d/1CzXWfLcOOGHgjyvIwQFmPQnqBzVdZDg/view](#)
- Talisha – requires reinforcement to elicit verbal/gestural communication/response (0 to 0:38)  
[https://drive.google.com/file/d/1CzXWfLcOOGHgjyvIwQFmPQnqBzVdZDg/view](#)
- Grant – partially verbal and uses gesture to respond (0 to 0:20)  
[https://drive.google.com/file/d/1CzXWfLcOOGHgjyvIwQFmPQnqBzVdZDg/view](#)
- Austie – co-occurring physical disabilities, non-verbal, and uses augmentative communication device, many non-responses, met minimum participation rule – 10 items (0 to 1:20)  
[https://drive.google.com/file/d/1CzXWfLcOOGHgjyvIwQFmPQnqBzVdZDg/view](#)
- Chloe – (non-verbal) uses augmentative communication device, routinely responds (1:45-2:40)  
[https://drive.google.com/file/d/1CzXWfLcOOGHgjyvIwQFmPQnqBzVdZDg/view](#)

---

---

---

---

---

---

11/12/20

**SWSCD Primary Exceptionality Classifications (Oregon 18-19):**

- ID > ASD > OHI
- Exceptionalities are routinely comorbid (co-occur)

**Eligible Code List**

Eligible Code List  
List of 30 categories:  
 • 40 Value Impairment (VI)  
 • 20 Communication Disorders (CD)  
 • 10 Intellectual Disabilities (ID)  
 • 30 Delays/Impairments (DI)

**Other Eligibility Categories**

The majority of students who participated in the ODE's new students with Intellectual Disability (ID) program were identified as having ID. This is consistent with the Oregon Department of Education (ODE) ID to PIPL referral to students via their Health Insurance (ODE #1 to PIPL) with prior to the new ODE ID program. There is also very little change in terms of participation percentage across content areas, as shown in the following table.

Table 21: Disability Proportions

Grade Content Area	VI	CD	ID	DI	Other	Mean
1. ELA	0.10	0.01	0.41	0.51	0.51	1.00
2. Math	0.10	0.01	0.41	0.51	0.51	1.00
3. Science	0.10	0.01	0.41	0.51	0.51	1.00
4. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
5. ELA	0.10	0.01	0.41	0.51	0.51	1.00
6. Math	0.10	0.01	0.41	0.51	0.51	1.00
7. Science	0.10	0.01	0.41	0.51	0.51	1.00
8. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
9. ELA	0.10	0.01	0.41	0.51	0.51	1.00
10. Math	0.10	0.01	0.41	0.51	0.51	1.00
11. Science	0.10	0.01	0.41	0.51	0.51	1.00
12. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
13. ELA	0.10	0.01	0.41	0.51	0.51	1.00
14. Math	0.10	0.01	0.41	0.51	0.51	1.00
15. Science	0.10	0.01	0.41	0.51	0.51	1.00
16. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
17. ELA	0.10	0.01	0.41	0.51	0.51	1.00
18. Math	0.10	0.01	0.41	0.51	0.51	1.00
19. Science	0.10	0.01	0.41	0.51	0.51	1.00
20. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
21. ELA	0.10	0.01	0.41	0.51	0.51	1.00
22. Math	0.10	0.01	0.41	0.51	0.51	1.00
23. Science	0.10	0.01	0.41	0.51	0.51	1.00
24. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
25. ELA	0.10	0.01	0.41	0.51	0.51	1.00
26. Math	0.10	0.01	0.41	0.51	0.51	1.00
27. Science	0.10	0.01	0.41	0.51	0.51	1.00
28. Social Studies	0.10	0.01	0.41	0.51	0.51	1.00
29. ELA	0.10	0.01	0.41	0.51	0.51	1.00
30. Math	0.10	0.01	0.41	0.51	0.51	1.00

7

**SWSCD Population — Learner Characteristics**

- **Communication difficulties** (affects self-determination, behavior, social interactions, & participation in learning environments)
- **Uneven learning patterns in all domains** (cognition, communication, socialization, & self-help)
- **Multiple disabling conditions concurrent with an intellectual disability** (physical disabilities, sensory challenges, & medical needs impact health, stamina, and engagement)
- **Motor impairments w/ cognitive and developmental delay** (routine tasks are challenging)
- **Individualized methods of accessing information** (tactile, visual, auditory, and multi-sensory)
- **Difficulty learning new tasks, maintaining new skills, and generalizing skills to new settings** (learning and application processes are difficult to master)\*\*

8

**SWSCD Population — Adaptive Behavior Impairments in 3 Domains**

- **Conceptual (academic) Skills:** Language, reading, writing, number concepts, critical thinking
- **Social Skills:** Interpersonal skills, social responsibility, self-esteem, gullibility, naïveté, follows rules/obeys laws, avoids being victimized, social problem solving
- **Practical Skills:** Activities of daily living (personal care), occupational skills, telling time, using money, safety, health care, travel/transportation, schedules/routines, using computer/phone

9

11/12/20

**SWSCD Population — Intellectual Functioning and Diversity of Ability & Accessibility Needs**

**Wide range of intellectual disability across “1% population”:**  
e.g., Diagnostic and Statistical Manual of Mental Disorders 5<sup>th</sup> Edition (DSM-5)

- Mild – Moderate – Severe – Profound
- **Lower three classifications typically  $\geq 3$  SDs from the mean IQ score, qualify to take alternate assessment**

Grade-level academic content must be reduced in depth, breadth, and complexity to meet the diverse learning needs across “1% population”  
→ Virginia Essentialized Standards of Learning (VESOL)

10

---

---

---

---

---

---

**Background & Context for Standards of Learning (SOL) Essentialization in Virginia**

11

---

---

---

---

---

---

**Standards of Learning (SOL) Essentialization in VA**

- Focus is **academic** due to federal law — e.g., least-restrictive learning environment (LRE); Individuals with Disabilities Education Act (IDEA)
- Every child must access viable, diverse opportunities to learn grade-level content
- Making grade-level general education content **accessible** and **relevant** for students with significant cognitive disabilities (SWSCD) requires a systematic process

12

---

---

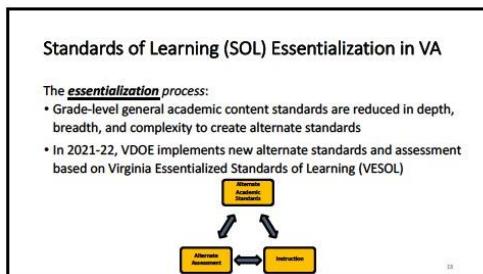
---

---

---

---

11/12/20




---

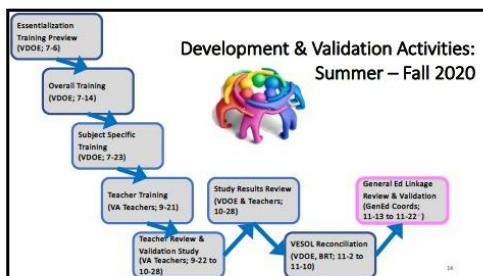
---

---

---

---

---




---

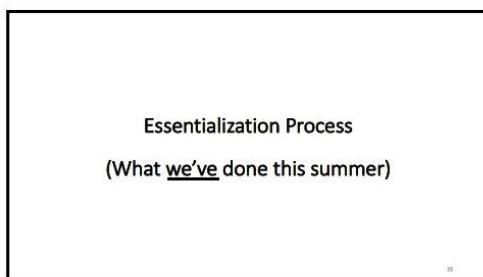
---

---

---

---

---




---

---

---

---

---

---

11/12/20

**VA Standards of Learning (SOL):  
Basis for SOL Assessment – Initial Basis for VESOL**



- SOL Assessment Blueprints were the starting point for essentialization (VDOE + UO/BRT)
- These SOL were candidates for essentialization to create new VESOL in each content area (Reading, Math, and Science)

16

---



---



---



---



---



---

**“Mile-high” View of Essentialization Process**

**Reduce depth, breadth, and complexity of SOL:**

- Eliminate behaviors too nuanced or difficult to measure
- Limit depth and breadth of concepts/verbs, simplify complex verbs, eliminate superfluous text

**What:**

- What is the big idea of a SOL?
- Are some behaviors more accessible and appropriate/relevant than others for SWSCD?
- Which behaviors can be formatted into recall/recognition/identification response (i.e., DoK)?
- Are there sequences of essentialized behaviors that subsume others (i.e., eliminate redundancy)?

**Focus:**

- Essentialization focuses on what SWSCD are asked to do (i.e., *performance demands*)
- Inherently forward-looking; opportunity to learn grade-level content & demonstrate proficiency

17

---



---



---



---

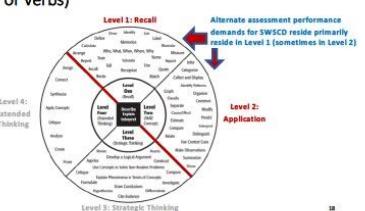


---



---

**Webb’s Depth of Knowledge (DOK): Cognitive Processes (Hierarchy of Verbs)**



18

---



---



---



---



---



---

11/12/20

**Reducing Depth, Breadth and Complexity of SOL****Scaffolded RDBC of SOL to create VESOL:**

1. Remove SOL *not assessed* on the SOL Assessment
2. Essentialize SOL based on linkage, accessibility, & appropriateness/relevance, with considerations around:
  - Real estate,
  - Realism, and
  - Behavior

19

---

---

---

---

---

---

**Considerations when Reducing Depth, Breadth and Complexity (RDBC) of SOL**

- **Real estate:** Multiple opportunities are needed to accurately demonstrate standards-based proficiency. This limits the "real estate" that can be tested and taught, and thus, the number of VESOL essentialized.
- **Realism:** What is realistic and taught in the classroom? Understanding cellular processes requires overly complex cognitive processes that are not used in everyday school/life — likely not accessible or appropriate/relevant.
- **Behavior:** Accessibility is crucial. For example, standards that specify oral speaking behaviors should not be used. Reading 3.1, and 3.2 'Communication & Multimodal Literacies' were not essentialized (also not part of SOL Assessment).

20

---

---

---

---

---

---

**Essentialization Operationalized**(More of what we've done this summer)

21

---

---

---

---

---

---

11/12/20

**Essentialization Operationalized: Moving from SOL to VESOL to Essentialized Assessment Frameworks (EAF)**

- SOL standards in Reading, Math, & Science consist of:
  - Strands (e.g., — Living Systems and Processes)
  - Standard (e.g., — 4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive.)
  - Bullets (sub-standards) (e.g., — Key ideas include a) the survival of plants and animals depends on genetics; b) plants and animals have (different) structures and processes for obtaining energy; and c) plants and animals have (different) structures and processes for creating offspring.)
- SOL → VESOL → Essentialized Assessment Frameworks (EAF):
  - SOL + VESOL + Low-Med-High complexity parameters — organized by content area and grade

22

---



---



---



---



---



---



---



---



---



---



---

**Science Example (VESOL)**

**4.2.a-c (SOL):**  
The student will investigate and understand that plants and animals have structures that distinguish (them from one another and play vital roles in their ability to survive). Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have (different) structures and processes for obtaining energy; and c) plants and animals have (different) structures and processes for creating offspring.

**4.2.a-c essentialized (VESOL):**

Sci.4.2.a-c.1: Recognize that plants need light, air, and water to grow.  
Sci.4.2.a-c.2: Recognize that living organisms have unique structures that help them obtain what they need to grow and survive.

23

---



---



---



---



---



---



---



---



---



---



---

**Low – Med – High Complexity Parameters:  
Looking Ahead to Alternate Assessment (& Instruction)**

Low – Medium – High complexity parameters were developed for each VESOL based on an accessible and appropriate range of grade-level expectations for SWSCD — will help guide development of test items and classroom instruction for 1% population

- *Low* — lowest complexity performance demand(s)
- *High* — highest complexity performance demand(s)
- *Medium* — intermediate performance demand(s) that bind Low to High

**Questions asked:**

- Do L – M – H reasonably build in complexity *within* a SOL?
- Do L – M – H complement each other *across* SOL & *within* grade?
- Do L – M – H reasonably build in complexity *across* grades (e.g., Grade 3 to Grade 4)?

24

---



---



---



---



---



---



---



---



---



---



---

11/12/20

**Science Example (VESOL + L-M-H Complexity Parameters)**

**4.2-a-c**  
The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have [different] structures and processes for obtaining energy; and c) plants and animals have [different] structures and processes for creating offspring.

**4.2-a-essentialized**  
**Solo 4.2-a-1:** Recognizes that plants need light, air, and water to grow.

**Low:** Use simple diagrams to identify what a plant/tree/flower needs to grow – for test items, the correct answer being light, water and/or air compared to things that would obviously not help growth.

**Medium:** Use simple diagrams to examine if a single plant/tree/flower will grow better/worse/the same if given varying amounts of light, water and/or air. **High:** Use simple diagrams to compare the (potential or actual) growth of 2-3 plants/trees/flowers when one is given an appropriate light, water and/or air, and the others are not.

**Science Example (VESOL + L-M-H Complexity Parameters)**

**4.2-a-c:** The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have [different] structures and processes for obtaining energy; and c) plants and animals have [different] structures and processes for creating offspring.

**4.2-a-c essentialized:**  
**Solo 4.2-a-c-2:** Recognize that living organisms have unique structures that help them obtain what they need to grow and survive.

**Low -** Identify which is an animal or plant using common terminology and pictures of common organisms. **Medium -** Identify that animals must eat food (i.e., plants, other animals), breathe air, and drink water to grow and survive, and that plants need materials in soil, air, and water to grow and survive compared to common objects/features they do not need. **High -** Identify and connect the unique structures that help plants and animals obtain what need to grow and survive from their environments.

11/12/20

Linkage Review & Validation  
SOL to VESOL  
(What you're doing)

---

---

---

---

---

Two Claims in this Study

1. VESOL should be linked with original SOL (not aligned).
2. Recommendations for revision/refinement should be constructive and actionable.

---

---

---

---

---

Linkage vs. Alignment (VA context)

**Linkage** — The strength of connection between a SOL and the academic content in a VESOL *that has been reduced in depth, breadth, and complexity* to ensure SWSO have **opportunity to access relevant grade-level learning objectives**.

**Alignment** — The strength of connection between a SOL and the academic content in another set of general education standards (e.g., CCSS), a curriculum, or test items to ensure students have the opportunity to access the learning objectives outlined in the SOL.

---

---

---

---

---

11/12/20

**Two Tasks in this Study**

Use your expertise to make sound judgments about the linkage of VESOL with original SOL:

- **Linkage** — Determine the strength of connection
- **Revision Recommendations** — Detail how the connection might be strengthened

---

---

---

---

---

---

**Judgments Gathered from 2 Review Questions for each VESOL and L-M-H**

**Q1.** Rate the strength of the linkage between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL).

3-pt rating scale: No link; Satisfactory Link; Strong Link

**Q2.** For any 'No Link' rating, please provide a rationale and recommendation/s for improving the standard. Please be specific and refer to the relevant VESOL and/or Low-Medium-High parameter details in your rationale(s) and recommendation(s).

Open-ended (text-box)

---

---

---

---

---

---

**Q1. Linkage ( $\emptyset$  Alignment)**

Rate the strength of the linkage between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL).

**No Link:** There is **NO CONNECTION** between the content in the VESOL and the content in the target SOL standard.

**Satisfactory Link:** There is a connection between the content in the VESOL and **AT LEAST ONE ASPECT** of the content in the target SOL standard that is easily recognizable, but perhaps not as strong as it could be.

**Strong Link:** There is a connection between the content in the VESOL and the content in **MORE THAN ONE ASPECT** of the target SOL standard that is obvious and clear.

32

---

---

---

---

---

---

11/12/20

**Strong Link**

**S = Strong Link:** There is a connection between the content in the VESOL and the content in **MORE THAN ONE ASPECT** of the target SOL standard that is obvious and clear.

Academic Content in SOL • * * * • △△△ • ◊◊◊	Academic Content RDBC in VESOL • * * • □□ • ○○○
--	--

**Strong link, with a few degrees of separation between the standards (qualitative), nor does it include all aspects of the standard – remember alignment isn't our goal given VESOLs are reduced in depth/breadth and complexity).**

34

---

---

---

---

---

---

---

---

---

---

**Strong Link Example from Oregon (Reading)**

**Grade 3 Original CCSS Standard:**  
CCSS.ELA-LITERACY.RI.3.4  
Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

**Content focus:** Use context clues to determine the meaning of words.

35

---

---

---

---

---

---

---

---

---

---

**Strong Link Example from Oregon (Reading)**

**Content focus:** Using context clues to determine the meaning of words.

**Essentialized Standard with L-M-H Parameters:**  
Identify the meaning of a general academic or domain-specific word.  
L - Sentence of 5 words or less read to student. M - Sentence of 6 words or more read to student. H - Sentence of 7 words or more read to student.

**Discussion:** This is clearly content that strongly links to the grade level standard. The student is identifying the meaning of words within the context of a sentence, with the number of words increasing from Low to High, which increases complexity.

36

---

---

---

---

---

---

---

---

---

---

11/12/20

**Satisfactory Link**

1 = Satisfactory Link: There is a connection between the content in the VESOL and **AT LEAST ONE ASPECT** of the content in the target SOL standard that is easily recognizable, but perhaps not as strong as it could be.

Academic Content in SOL • + + + • △△△ • ●●● • ○○○	Academic Content in VESOL • + • △ • ○
---	--

*Easily recognizable connection, but there are degrees of separation between the standards that might be strengthened.*

37

---

---

---

---

---

---

---

---

---

**Satisfactory Link Example from Oregon (Math)**

**Grade 8 Original CCSS Standard**  
CCSS.MATH.CONTENT.8.F.B.5  
Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear, or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

**Content focus:** Analyze/sketch graphs to determine/show change between two variables (increasing/decreasing, linear, or nonlinear).

38

---

---

---

---

---

---

---

---

---

**Satisfactory Link Example (Math)**

**Content focus:** Analyze/sketch graphs to determine/show change between two variables (increasing/decreasing, linear or nonlinear).

**Essentialized Standard with L-M-H Parameters:**  
Identify slope as positive, negative, zero, or undefined.  
L - Identify positive slopes. M - Identify negative slopes. H - Identify zero or undefined slopes.

**Discussion:** It might be argued that this is strong link, but it is at the very least satisfactory. The student is indeed comparing functions. They are only linear and they are only in four formats, but it gets at the original standard's focus on examining relationships between two variables graphically.

How might we improve this essentialized standard?

39

---

---

---

---

---

---

---

---

---

11/12/20

**No Link**

**S = No Link:** There is **NO CONNECTION** between the content in the VESOL and the content in the target SOL standard.

Academic Content in SOL • + + + • △△△ • ○○○		Academic Content RDBC in VESOL • X • □
--	---	--

The two standards being compared are not the same stuff, and any connection is not apparent.

40

---

---

---

---

---

---

---

---

---

---

**No Link Example from Oregon (Science)**

**Grade 5 Original NGSS Standard**  
S5ESS2.2  
Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

**Content focus:** Understand (descriptively and mathematically) how water is distributed around the world.

41

---

---

---

---

---

---

---

---

---

---

**No Link Example (Science)**

**Content focus:** Understand (descriptively and mathematically) how water is distributed around the world.

**Essentialized Standard with L-M-H Parameters:**  
Compare numbers 1-100 using graphs.  
L - Compare numbers 1-20; M - Compare numbers 1-50; H - Compare numbers 1-100.

**Discussion:** Though this standard is related to being able to understand and compare numeric information/data using graphs (so the situation could certainly be worse), it is not connected to understanding how water is distributed around the world in any way.

How might we improve this essentialized standard?

42

---

---

---

---

---

---

---

---

---

---

11/12/20

**Q2. Revision Recommendations**

For any 'No Link' rating, please provide a rationale and recommendation for improving the standard. Please be specific and refer to the relevant VESOL and/or L-M-H parameter details in your rationale(s) and recommendation(s).

The rationale and recommendations you provide should:

- Be specific, succinct, and constructive
- Yield actionable guidance for revision of VESOL and/or L-M-H parameters that you deem lacking in linkage, accessibility, or appropriateness/relevance.

43

---

---

---

---

---

---

**Distributed Item Review (DIR) System**

44

---

---

---

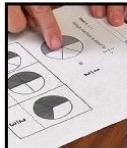
---

---

---

**Distributed Item Review (DIR)**

<http://www.brtitemreview.com>  
A web-based system for presenting **standards and test items** to experts across a broad geographic region so they can review them for important dimensions of quality, including **accessibility, appropriateness, bias, sensitivity, and alignment**.



45

---

---

---

---

---

---

11/12/20

**Accessing and Confirming Your Review Assignment**

1. Login to the DIR.
2. Carefully confirm details (content area, grade-band), and click "Start".

The first screenshot shows the 'Distributed Instruction Resources' (DIR) login page. The second screenshot shows the 'ELA VESOL Usage Review' assignment confirmation screen, which includes fields for 'Content Area' (ELA), 'Grade Band' (K-2), and 'Assignment Name' (ELA VESOL Usage Review).

---

---

---

---

---

---

**Accessing and Confirming Review Assignment**

3. Take time to review and open resources, videos, and instructions to reframe study and orient yourself, including:
  - Key Concepts and Definitions PDF
  - Content Area SOL
  - Slides of Training\*\*
  - Video of Training\*\*
4. Begin reviewing VESOL by clicking "Next".

This screenshot displays the 'ELA VESOL Usage Review' interface. It shows a sidebar with 'Resources' and 'Videos'. Below the sidebar, there are sections for 'Key Concepts and Definitions PDF', 'Content Area SOL', 'Slides of Training', and 'Video of Training'. A red box highlights the 'Next' button at the bottom right of the main content area.

---

---

---

---

---

---

**Reviewing VESOL**

1. Carefully review the standards: **VESOL Low-Medium-High** parameters, and SOL — in the context of SWCD population. Clickable list, shows those completed (+) & not yet completed (-)
2. Have resources open during review (e.g., Key Concepts & Definitions).
3. Answer **1 required** review question.
4. Provide information on how to improve VESOL and/or L-M-H in text box, **required for any 'No Link' rating**.
5. Click "Save and Continue".

This screenshot shows the 'ELA VESOL Usage Review - VESOL\_R01\_01\_LINK' page. It features a 'Resources' sidebar and a main content area with a 'Checklist' section. The checklist lists 'VESOL', 'L-M-H', and 'SOL' with status indicators. A red box highlights the 'Required for any "No Link" rating' text box. Another red box highlights the 'Save it!' button at the bottom right.

---

---

---

---

---

---

11/12/20

**Nuances to Note**

- Some SOL not essentialized (real estate, realism, behavioral)
  - You won't see these SOL
- Some SOL are essentialized into multiple VESOL (too much content)
  - You'll see the same SOL associated w/ 2+ VESOL

Standard	Brand	Virginia SOL	VESOL	VESOL L-M-H Parameters
4.3e-d Earth Science				L- Identify the Sun, Earth and Moon as compared to other unrelated objects on Earth. M- Identify the Sun, Earth and Moon as compared to other related space objects (e.g., their size, shape, or position) in the solar system (i.e., Sun, Earth, Moon, other planets, comets, meteors) using diagrams, graphs, and models.  L- Recognize that the Sun, Earth and Moon are the three major objects in the solar system that exert gravitational pull on each other. M- Explain how the Sun's gravity affects the motion of the Earth and the Moon.

---



---



---



---



---



---

**Nuances to Note cont.**

- Some VESOL are associated with multiple SOL (Math & Science, redundant content if all were essentialized)
  - You'll see 2+ SOL associated w/ a VESOL
  - Matching SOL code stem are "most important" for linkage;** but others are important, too, and would be "addressed" by the VESOL if essentialized (e.g., **VESOL\_M044.8c** → **VA\_M044.8b, VA\_M044.8c**)

Standard	Brand	Virginia SOL	VESOL	VESOL L-M-H Parameters
4.8b Measurement and Geometry		The student will estimate and measure weight/mass and describe the result in U.S. Customary and metric units.	Addressed in 4.8c	L- Use qualitative and quantitative measures to rank objects according to their mass. M- Estimate the mass of common objects in U.S. Customary and metric units. H- Compare two masses that vary by 2-5 times.
4.8c Measurement and Geometry		Compare and contrast the approximate measures of one unit, identify equivalent measures of length, weight/mass, and capacity, and convert units within the U.S. Customary system.		L- Compare two measures that vary by 2-5 times. M- Compare two measures that vary by 2-4 units. H- Compare two measures that vary by 2-3 units.

---



---



---



---



---



---

**Nuances to Note cont.**

- Some VESOL are associated with multiple SOL (Math & Science, redundant content if all were essentialized)
  - You'll see 2+ SOL associated w/ a VESOL
  - Matching SOL code stem are "most important" for linkage;** but others are important, too, and would be "addressed" by the VESOL if essentialized (e.g., **VESOL\_M044.8c** → **VA\_M044.8b, VA\_M044.8c**)

**Elementary Math + VESOL\_M044.8c**

Non Instruction: Scoring Protocol  
More comparisons of time, weight, and length units using graphic organizers.

**1 VESOL & LMH**

Questions

1. Non-instructional measurement for 2nd grade: Measurement and Data: Comparing Lengths Directly and Indirectly

2. Non-instructional measurement for 2nd grade: Measurement and Data: Comparing Weight/Mass Directly and Indirectly

3. Non-instructional measurement for 2nd grade: Measurement and Data: Comparing Capacity Directly and Indirectly

**2 SOL to consider**

---



---



---



---



---



---

11/12/20

**Important Things to DO**

- Stop and start your review at anytime and any number of times – the DIR keeps track of what you've successfully saved/completed by giving you a green check ( next to the ID code (always top-left side of screen).
- Edit previously saved responses by clicking on the ID code — click "Save and Continue" to keep changes.
- Self-monitor patterns of attentiveness and consistency in your responses.
- Budget your time because accuracy/quality are important, and compensation is dependent upon completion of review assignments.

52

---

---

---

---

---

---

**Important Things to AVOID**

- You are not being asked to make judgments about the appropriateness of statewide alternate assessment program in Virginia. Policy issues, while certainly important with practical implications, are not a concern in this study.
- This process is aimed exclusively at determining the strength of VESOL linkage to SOL as a basis for refinement and improvement of the alternate standards under development.

53

---

---

---

---

---

---

**General Education Linkage & Validation Study  
Overview & Timeline**

54

---

---

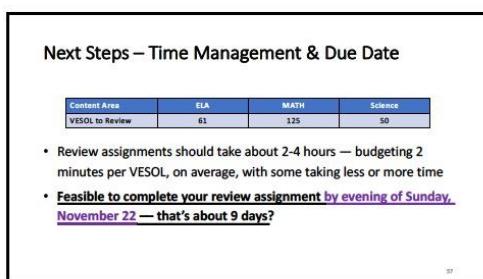
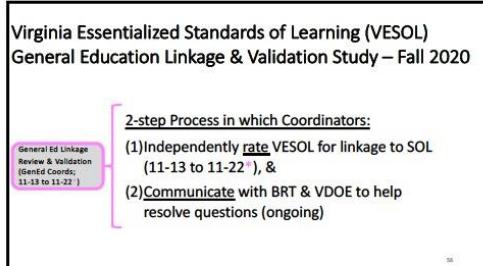
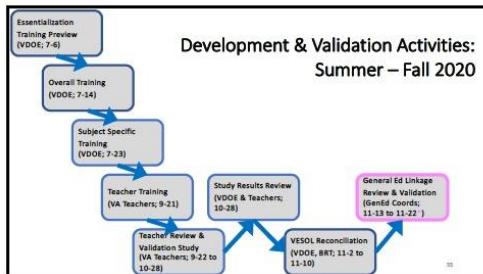
---

---

---

---

11/12/20



11/12/20

**Next Steps –**

- Reviews will open today
- Create a Distributed Item Review (DIR) user account: <http://www.britemreview.com/>
- Look for emails from Sev and Shawn — we will monitor progress, and might contact you if we see you going down a rabbit hole, or if the deadline is nearing and you have many VESOL left to review

50

---

---

---

---

---

---

If you have questions, concerns, or encounter any technical difficulties at any point, please email:

Shawn Irvin, PhD: [pirvin@uoregon.edu](mailto:pirvin@uoregon.edu)

and

Sevrina Tindal: [stindal@uoregon.edu](mailto:stindal@uoregon.edu)



50

---

---

---

---

---

---

**Thank you!!**

Your work is crucial to building an alternate assessment system that is accessible and appropriate/relevant for SWSCD...that gives them an opportunity to demonstrate proficiency toward grade-level academic content.

Do you have any questions?



50

---

---

---

---

---

---

11/12/20




---

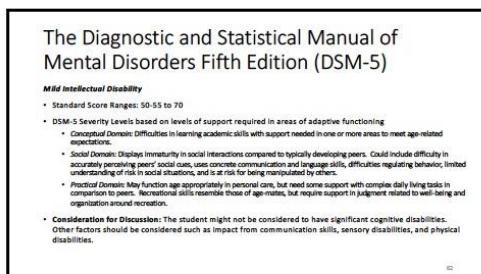
---

---

---

---

---




---

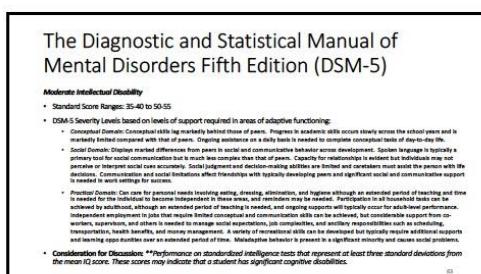
---

---

---

---

---




---

---

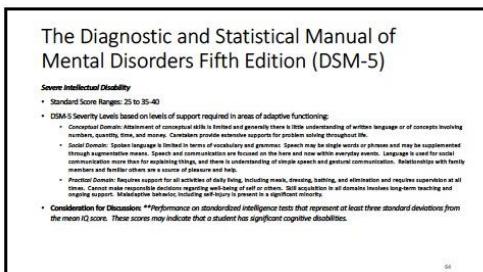
---

---

---

---

11/12/20




---



---



---



---



---



---



---



---



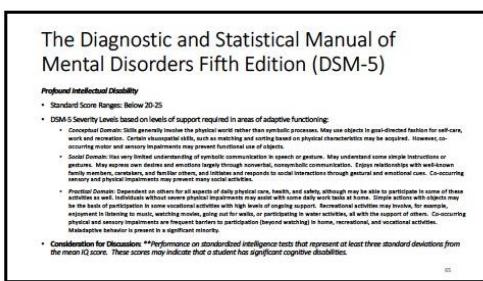
---



---



---




---



---



---



---



---



---



---



---



---



---



---

### **Appendix 4.B.3**

**General Education Linkage Review & Validation Study —**

**Key Concepts and Definitions Supplement**

## Virginia Teacher Review & Validation Study — Fall 2020 Key Concepts & Definitions

### **Linkage (one review question):**

1. Rate the strength of the ***linkage*** between the Virginia Essentialized Standard of Learning (VESOL) and the grade-level Standard of Learning (SOL).

Response type is a 3-pt rating scale:

No link; Satisfactory Link; Strong Link

**Linkage** is defined as the strength of connection between a SOL and the academic content in a VESOL ***that has been reduced in depth, breadth, and complexity*** to ensure SWSCD have ***opportunity to access relevant*** grade-level learning objectives.

**No Link:** There is **NO CONNECTION** between the content in the VESOL and the content in the target SOL standard.

**Satisfactory Link:** There is a connection between the content in the VESOL and **AT LEAST ONE ASPECT** of the content in the target SOL standard that is easily recognizable, but perhaps not as strong as it could be.

**Strong Link:** There is a connection between the content in the VESOL and the content in **MORE THAN ONE ASPECT** of the target SOL standard that is obvious and clear.

Remember... **linkage is not alignment**, as alignment between original/general education and essentialized standards would result in academic content, performance demands, and test items that are too difficult and overly complex for the population of students with significant cognitive disabilities. The new Virginia alternate assessment program exists as a separate system with separate intentions from the SOL Assessment — the intention being to reduce the depth, breadth and complexity of grade-level academic standards so that SWSCD have access to viable and diverse opportunities to learn grade-level content.

**VESOL Improvement Recommendations (one review question):**

2. For any 'No Link' rating, **please provide a rationale and recommendation/s** for improving the standard. Please be specific and refer to the relevant VESOL and/or Low-Medium-High parameter details in your rationale(s) and recommendation(s).

Response type is open-ended: Text-box

The rationale and recommendations you provide should:

- Be specific, succinct, and constructive
- Yield actionable guidance for revision of VESOL and/or L-M-H parameters that you deem lacking in linkage, accessibility, or appropriateness/relevance.

### **Appendix 4.D.1**

#### **General Education Linkage Review & Validation Study —**

#### **Math Rationale and Revision Recommendations**

Consider rewording to avoid the use of the word "match." Consider rewording: Identify concrete, pictorial and numeric representations of one-half.
Consider rewording to avoid the use of the word "match." Consider rewording: Identify concrete, pictorial and numeric representations of one-half.
The High parameter does not extend from the Low and Medium parameters. This standard is about naming the fraction represented by a model. Finding half of a number is a calculation and not a representation. Consider rewording: Identify concrete, pictorial and numeric representations of one-half.
This VESOL - "Identify halves of wholes" is not specific. SOL 3.2b addresses representing fractions with models and symbols, not finding half of a number.
This VESOL is about equivalent fractions, whereas this standard is addressing the value of fractions (e.g., $\frac{1}{2}$ is larger than $\frac{1}{3}$ ). Equivalency is about fractions with equal value, but that is not necessarily the focus of this standard.
Consider rewording the Low-Medium-High to say: L - Find the sum of two whole numbers up to 10. M - Find the sum of two whole numbers up to 20. H - Find the difference of two whole numbers, each 20 or less
Consider rewording the Low-Medium-High to say: L - Given a context, find the sum of two whole numbers up to 10. M - Given a context, find the sum of two whole numbers up to 10 and the difference of two whole numbers, each 5 or less. H - Given a context, find the difference of two whole numbers, each between 6 and 10
SOL 3.4c only has students practicing fluency with multiplication facts of 0, 1, 2, 5, and 10. Consider if these whole number groups can focus more (and include 0) 0, 1, 2, and 5.
This VESOL needs to be more specific and include the use of concrete and/or pictorial models representing area/regions. e.g., Solve problems involving the addition/subtraction of a whole number and using concrete or pictorial models representing areas/regions.
This VESOL should address estimating length using measurement tools versus comparing lengths of two objects.
This VESOL is worded too broadly since comparing size could refer to the size of numbers, the size of a circle, etc. This VESOL needs to link more directly to estimating liquid volume, again with a focus on the use of measurement tools.
Consider specifying using an analog and/or digital clock.
Consider changing the wording to not use match. Identify figures that are the same size and shape. Consider specifying spatial orientation in the Low-Medium-High descriptions.
Consider rewording as: Identify categories on picture graphs that have the greatest, the least, or the same.
SOL 3.16 is about recognizing patterns. Counting is part of Number and Number Sense (Skip counting is in SOL 1.1d). Perhaps something more like identify the missing term or extend a numeric pattern and then use similar parameters.
Consider using "identify" versus "match" for wording here. Note that for most students, "eleven through nineteen" might be considered higher level than twenty-one or thirty-seven, so consider changing your Low-Medium-High to reflect this.

Consider rewording: Use place value to identify numbers that are 10 more than a given multiple of 10.
Consider how this VESOL might address comparing fractions (with and without models) having common denominators $1/5 < 3/5$ and then comparing some unit fractions $1/2 > 1/5$ . The comparison of whole numbers is already in VESOL grade 3.1c and is really not a focus of the content of this SOL.
VESOL 3.2c includes comparing equivalent fractions of $1/2$ (e.g., $2/4 = 1/2$ ). This standard should build from there. For example, equivalent fractions of other unit fractions.
SOL 4.2c is about relating a fraction to a division statement by using models. This VESOL is very low level and not linked to the standard. Consider having students relate an area model to a fraction statement.
Consider rewording the VESOL to avoid the use of the word "recognize." The Medium and High parameters may wish to say, "such as 11.1 and 22.2" and "such as 33.3, 44.4, and 55.5" Standards should not be specifying understanding only with specific numbers - we want to ensure understanding versus memorization.
The SOL 4.3b is about rounding decimals and the VESOL is addressing the identification of mixed numbers. This VESOL needs clarity in the wording versus just having $1/2$ and $1/4$ in parentheses.
How are the low and medium parameters different than VESOL 4.2a?
This VESOL needs to specify the use of models to be linked to SOL 4.3d as the standard is focused on multiple representations.
Consider using "identify" versus match in this VESOL. Consider having the VESOL be worded to multiply using a model and then have the parameters specify the use of an array. Shouldn't these parameters specify rectangular arrays $1 \times 1$ , $1 \times 2$ , $1 \times 3$ , etc.?
The VESOL needs to specify whole numbers. Consider rewording the Low-Medium-High to say: L - Find the sum of two whole numbers up to 20. M - Find the sum of two whole numbers up to 40 and the difference of two whole numbers, each 10 or less. H - Find the difference of two whole numbers, each between 11 and 40.
The VESOL needs more specificity - Do we mean divide two numbers that are each 10 or less?? Or divide two numbers whose quotient is 10 or less?
More specificity is needed regarding division parameters in reference to the dividend, divisor, and quotient.
Consider having the VESOL worded as "Use a model to add whole numbers and proper fractions with denominators of 2 or 4." The parameters can then specify the use of a number line.
Consider wording the VESOL as whole numbers and proper fractions with denominators of 2 and 4.
This VESOL is linked to the measurement and geometry strand, not computation as SOL 4.6a and 4.6b. Can the VESOL be about adding decimals up to 0.50 and then the parameters specify the use of coins to determine the decimal value of two coins?

Consider removing "use unit square feet" in the VESOL. Do we need to specify of a rectangle (e.g., Given a rectangle, determine area in square units). The parameters can specify the use of square feet.
This VESOL needs to specify that measurement will be to the closest inch or cm. Consider changing "match" to "identify".
VESOL Suggestion: Compare two measurements (time, length, and weight), given a pictorial representation.
This VESOL needs clarification. Are students using measurement tools to find time, length, or weight and then creating a pictorial representation given a scale or do they also have to make the scale?
This is the exact same VESOL as the third grade VESOL (3.11). Consider including lines and rays. Are students being given a representation of a point, line, and angle for each Low, Medium, and High?
This standard needs to be vertically articulated with the grade 3 VESOL as they are very similar.
Suggestion for VESOL wording: Compare data represented in bar graphs. In the parameters, does up to 10 mean the bar graph represents a total of ten values or that each bar can represent 10 or fewer? Additional clarity is needed.
SOL 4.15 is about recognizing patterns. Counting is part of Number and Number Sense (Skip counting is in SOL 1.1d). Perhaps something more like identify the missing term or extend a numeric pattern and then use similar parameters.
The VESOL has two parts, but the L/M/H do not address all of the parts. Shouldn't there be a L/M/H for rounding?
This VESOL does not address equivalency. The VESOL for 3.2c has students comparing equivalent fractions to 1/2. This VESOL needs to articulate from there.
SOL 5.2 addresses comparing and ordering which the VESOL is addressing but the wording is confusing. The L/M/H parameters are about multiples and do not address comparing in order to match the VESOL.
Change "match" to "identify".
This VESOL is linked to the measurement and geometry strand, not computation with whole numbers. I see that value of coins and money is something that the committee feels needs to continue, but it really involves computation with decimals.
This VESOL is written to address addition/subtraction. Students could multiply 0.5 times a whole number for this VESOL - Low - Multiply 0.5 times 1 and 2 Med - Multiply 0.5 times 4, 6, 8 High - Multiply 0.5 times 3, 5, 7.
Needs to involve fractions; Articulate to grade 4 VESOL: Solve word problems involving addition/subtraction of wholes, halves, and quarters.
The VESOL needs clarity - are students being given a numerical representation and asked to identify the equivalent verbal description? Consider removing 0.5 as the SOL addresses unit fractions.

VESOL and parameters should use the word "simplify" instead of "solve" (expressions are simplified; equations are solved). It is unclear what the visual/verbal model is intended to do, as it is not clarified in the parameters; it is not clear when the parentheses would be used if students are adding 1-10 (do we mean $1 + (2 + 3)$ ? Can verbal/visual model be described as pictorial and verbal representations?
VESOL needs to be limited to the volume of a rectangular prism. The formula should not appear in the standard but include in the parameters. VESOL: Determine the volume of a rectangular prism. Parameters: Low - Given a model labeled with the area of the base and height Med - Given the area of the base and height (numerically) High - Given the length, width, height.
The standard addresses differentiating between perimeter, area, and volume. The VESOL is about adding two given volume measurements.
Consider removing (e.g., traffic signs) from the VESOL and adding it to the parameters.
Consider rewording the VESOL: Identify the line plot that represents a given set of data.
Consider putting "when provided with a definition" in the parameters
Consider removing "given the definition" from the VESOL and placing it in the parameters.
Mean as fair share can be represented using set models - consider adding as part of parameters (identifies the set model that represents the mean of the data set)
Consider removing "when provided the definition" to the parameters
The VESOL should be about equations not expressions. Consider: Identify the equation containing a variable that represents a given pictorial or verbal model.
Suggestion to VESOL: Compare two whole numbers from 0 to 80 using $<$ , $=$ , or $>$ ; The parameters should specify using a number line.
The VESOL seems focused on the value of coins (measurement and geometry strand) versus computation with decimals.
Consider: Use a model to represent addition and subtraction of whole numbers. Include number line in the parameters.
VESOL Suggestion - identify whether the product of two integers is positive or negative.
Squares are rectangles, so we do not need the VESOL to include both. We may want to say rectangles (including squares) in the parameters but hope teachers would already know to do so.
I am concerned about this VESOL - how will students determine congruence? Just by looking at the two figures and saying that they look congruent or are we intending to define angle measures and side lengths of polygons and then have students determine congruence? How will students determine if two angles are congruent? More specificity is needed here.
Vertical Articulation needs to be examined here - in grade 5 we had a VESOL about line plots in which students had to identify the line plot that represents a given set of data. This VESOL is using graphs (picture, bar, and line) from earlier grade levels with less cognitive demand required - we probably need to examine if this is growing in cognitive complexity across grade levels.

In this VESOL we should use the appropriate mathematical vocabulary "mean" versus "average" (we did use it in grade 5 for mean, median, and mode) .
Recommend using the term "ratio table" versus "input-output" table. More specificity is needed in the parameters - what does table with unit rates 1-2 mean? Are these the values of the unit rates or the number of ordered pairs listed in the ratio table?
SOL 6.13 is about solving equations. I am not sure what this VESOL is asking students to do? Do we mean "Identify equivalent equations involving one variable that require one step to solve? I think that you mean to use "equation" and not expression here. More specificity is needed to ensure appropriate linkage.
VESOL wording suggestion: Identify the linear inequality ( $>$ or $<$ ) that represents a practical situation. Please avoid using "match" in the standard.
This seems to link better to 7.1b. Consider rewording the VESOL to specifically refer to scientific notation, as that is what is being described, not "a number written as a power of ten" (that would be like 100 is 10 squared). It sounds like this VESOL is referring to scientific notation. More specificity is needed.
Equivalency is not the focus of SOL 7.1C. Wording of VESOL needs to be addressed (the set of rational numbers includes most decimals) Suggested Change: Identify equivalent decimals and fractions. Avoid the use of "match."
Suggested Change: Identify the absolute value of positive and negative rational numbers. Then include the use of the number line and the limitations on the values in the parameters.
Suggested VESOL change: "Add, subtract, multiply, and divide rational numbers."
This VESOL is way too broad - consider how it might be more focused. Students have not had any exposure to graphs at this point in the VESOL. Consider how this might be focused on being given a ratio table and identifying the unit rate that shows the relationship between x and y in the table.
VESOL needs to be limited to the volume of a rectangular prism. The formulae should not appear in the standard but include in the parameters. This standard is very similar to VESOL 5.8A. These suggestions were made for the parameters in grade 5: VESOL: Determine the volume of a rectangular prism. Parameters: Low - Given a model labeled with the area of the base and height. Med - Given the area of the base and height (numerically). High - Given the length, width, height. Consider how grades 5 and 7 might differ (values of l, w, h maybe?) to differentiate them in their level of complexity.
This VESOL needs to be more limited in scope. Based on VESOL from prior grade levels, students would have limited knowledge that would allow them to identify if lengths of sides are proportional to determine if figures are similar. Students have had no exposure to equilateral, acute, obtuse, or equilateral triangles. This needs more specificity.
Need to review vertical articulation as it relates to this VESOL - don't feel this links to the SOL about quadrilaterals nor is an appropriate cognitive level for this grade 7 VESOL.
Suggestion to have better linkage: Identify points that represent the vertices of a triangle graphed in the first or second quadrant of the coordinate plane.

I have concerns about now including probability in grade 7 when it has been left out of the VESOL up until this grade level. Have students been exposed to percentages in the VESOL standards yet? Probability will be a heavy lift here if there has been no groundwork laid in previous grade levels.
Examine vertical articulation here to better link this to grade 7 SOL. Identifying the units is not at the cognitive complexity of some previous grade levels in which students were expected to identify the graph that best represents the data.
SOL 7.11 addresses evaluating algebraic expressions. I think that is what the VESOL is intending but consider more specific wording: "Evaluate an expression with one variable involving addition or subtraction" (e.g., $x + 5$ , if $x$ is 2).
This VESOL does not involve a variable at all. Consider vertical articulation with grade 6 VESOL.
VESOL needs more specificity - does this standard mean that students need to identify if a given value is a solution to an equation or inequality? The parameters speak to actually solving an equation. Consider prior knowledge here and how this is articulating with how students are evaluating expressions in this grade level and in grade 6.
Suggestion to VESOL: Compare the value of integers. Include the limitations on the values and the model of using a number line in the parameters.
Students are not expected to make change using coins/bills up to \$20 anywhere in the VASOL. Consider how this VESOL might refocus on total cost of a purchase (e.g., reconcile an account balance).
Concern about vertical articulation.
This VESOL would have a closer link to SOL 8.13c as the expectation does not appear for students to create a scatterplot. The parameters of this VESOL need more clarity and we need to be careful using the term variance as it has a mathematical meaning that is relevant to this content. If we mean that the x- and y-values of the coordinates will vary by a certain number of units, we need to be more specific.
This VESOL needs to be vertically articulated to the previous grade levels.
SOL 8.15a refers to determining whether a relation is a function. This should be linked to SOL 8.14a evaluate an algebraic expression for given replacement values of the variables. Be sure to vertically align this to previous grade levels.
For this VESOL to link to algebra and linear functions, it needs to focus on lines in the coordinate plane. Consider changing this VESOL to focus more on having students use slope triangles to determine the slope of lines graphed in the coordinate plane. The parameters could then be about the slopes of the lines. This VESOL would better link to SOL 8.16b.
This one should be linked to SOL 8.16a "Recognize and describe the graph of a linear function with a slope that is positive, negative, or zero. The Grade 8 SOL do not include "undefined" slope. Consider changing the VESOL to more closely match SOL 8.16a.
Suggested VESOL change: Identify the graph of a linear function that matches a given table of values. More specificity is needed in the parameters (not sure if changes in slope are clear here) Consider varying the slope as 1 or -1; 2 or -2; $1/2$ or $-1/2$ ; $1/4$ or $-1/4$ , for example.

This VESOL needs to be vertically articulated. Not sure what (0-20) means in the VESOL - this should be more clearly specified in the parameters; perhaps consider indicating the coefficient of the variable terms and operations needed to solve for the variable. This is not specific enough.
VESOL needs to specify linear inequality in one variable. Needs to be vertically articulated with other grade levels.
Consider if the parameters of this VESOL should be limited to linear equations.
VESOL parameters should specify if terms are linear only. Need to consider how this vertically articulates to other grade levels - for example do we have students evaluate expressions with square terms, since previous grade levels have VESOL involving scientific notation and powers?
The wording of these parameters is unclear - what does identify the number that matches a first power expression? Do we mean determine equivalent expressions involving a variable base raised to the first power (e.g., $(-5)^1 = -5$ ? Not sure what (1-20) is referring to here?)
Consider referring to "polynomial expressions" in the VESOL. Parameters may wish to limit the number of terms; value of coefficients, etc.
Consider recommending area models for this VESOL versus number line models.
This needs to be vertically articulated with other grade levels.
The VESOL does not mention the use of equations to solve a practical problem. This needs to be incorporated if linked to SOL A.4e. Also, this is the only VESOL that mentions the use of a calculator...this needs more consistency across VESOLs.
The VESOL needs to specify inequalities in one variable graphed on a number line. More vertical articulation is needed with other grade levels.
This needs to be vertically articulated with grade 8 - please see notes in grade 8 standard regarding parameters related to slope.
SOL A.7a refers to determining whether a relation is a function. Consider how the VESOL might be better focused on providing a table of values or a graph of a set of ordered pairs that represent a function.
Suggested rewording of VESOL (line graphs refer to a statistical graph): Determine the x- and y-intercepts of a linear function given its graph. The parameters here are not clear - to what does (0-10) refer?
The VESOL needs revision, as I am not sure what "interpret trend in line..." means. Consider wording such as "Determine the line of best fit that best models a set of data." The parameters could then be related to the slope of the lines of best fit.

### **Appendix 5.A.1**

#### **Phase 1 Reconciliation Procedures**

### **VAAP Content Area/Grade-Level Internal Review & Reconciliation Process**

The purpose of this internal review is to ensure that the VESOL and LMH complexity parameters have consistent language and performance demands across the content areas within each grade level and across grade levels.

Our review will be conducted by two teams with members who have worked on the VESOL and LMH parameters in each content area as well as at least one member with teaching experience with students with significant cognitive disabilities. We will review grade-level EAF organized in secure Google Sheets (email has secure link).

<b>Team 1 – Grades 3-5 (6, after Team 2)</b>	<b>Team 2 – Grades 6-8 and High School</b>
<ul style="list-style-type: none"> <li>• Sharon Siler (VDOE; Teaching experience with SWSCD population)</li> <li>• Servina Tindal (BRT; Reading)</li> <li>• Frank Gilhooley (VDOE; Science; Exceptionalities)</li> <li>• Kevin McClintock (VDOE; Math)</li> <li>• Joe Swinehart (BRT; Math)</li> <li>• Sarah Susbury (VDOE; Leadership Consultant)</li> </ul>	<ul style="list-style-type: none"> <li>• Shawn Irvin (BRT; Science; Assessment expertise)</li> <li>• Lia Mason (VDOE; Math; Exceptionalities)</li> <li>• Deborah Johnson (VDOE; Reading)</li> <li>• Lesin Dippold (VDOE; Science; Teaching experience with SWSCD population)</li> <li>• Shelley Loving-Ryder (VDOE; Leadership Consultant)</li> </ul>

**YOUR STARTING POINT** - Reviews should begin with Reading in the team's first assigned grade level. Once the language and performance demands in Reading have been identified, they can serve as an anchor for Math and Science. Once Reading is checked, check Math. If Science is included in the grade level it should be reviewed last.

**STEP 1** - Check the *Key Scope* provided for Reading on the EAF. The *Key Scope* provides a snapshot of the limiters or boundaries that the VESOL and LMH parameters adhere to currently. Please note any VESOL or LMH that disagrees with the *Key Scope* in Column "L" of the EAF.

**STEP 2** - Read the VESOL (Column D) and the LMH parameters (Column E). Look for jargon or unnecessary wordiness in the VESOL and LMH. Place recommendations for language edits for these VESOL and LMH parameters in Column "L" of the EAF.

**STEP 3** - Put on a teacher hat and keep students with significant cognitive disabilities in mind to check for consistency of rigor in the performance demands. Ask yourself:

- Do Low parameters appear to be for students at the lower end of the 1% population who may only have early pre-school academic skills and require concrete objects and pictures?
- Do Medium parameters appear to be for a student in the mid-range of cognitive ability who skills may kindergarten skills and require pictures and in early stages of using symbolic representation?
- Do the High parameters seem to be for a student in high end of the 1% population who may have early elementary (or beyond) skills and be able to use simple symbolic representation during learning?

Document any LMH that seems off target in column "L" of the EAF.

**STEP 4** – Repeat steps 1-3 for Math keeping in mind that the performance demands in Math should be internally consistent, and also generally consistent with the Reading performance demands.

**STEP 5** - If Science is included in the grade level, repeat Steps 1-3 — keeping in mind that the performance demands of Science should be internally consistent, and also generally consistent with Reading and Math.

**STEP 6** - After completing each grade level and content area assigned, consider performance demands across the grade levels to see if they reflect small and reasonable steps in rigor from one grade level to the next. Use column "L" to document any unreasonable leaps that you find.