Technical Report

Study of the Alignment of the North Carolina Content Standards and Extended Standards (K-8 and High School) with the WIDA 2020 English Language Development Standards

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Executive Summary

The purpose of this study is to assist the North Carolina Department of Public Instruction (NCDPI) with an alignment study to satisfy the United States Department of Education's (USED) request to provide evidence that the WIDA 2020 English Language Development (ELD) Standards, which have been adopted by North Carolina, meet the mandate of the Every Student Succeeds Act (ESSA) of 2015 that, "Each state...shall demonstrate that the State has adopted English language proficiency standards that...(ii) address the different proficiency levels of English learners; and (iii) are aligned with the challenging State academic standards" (U.S. Department of Education, 2015, p. 24). The ELD standards should reflect the English language knowledge and skills needed for English learners (ELs) to access and achieve grade-level academic content as defined by the State's academic content standards. This external, independent alignment study will address standards in each grade-level/grade-band (K, Grade 1, Grade band 2-3, Grade band 4-5, Grade band 6-8, Grade band 9-12) and the content areas of English/language arts (ELA), mathematics, and science.

The broadest intent of the study is to provide an independent evaluation of the degree of alignment between two sets of standards − the WIDA 2020 ELD Standards and the State's academic content standards. This alignment, also referred to as "correspondence," relates the English language development standards to the high-leverage language in the academic content standards, that is, the particular language demands necessary to access grade-level content and attain academic content proficiency.

Approach. In order to identify and evaluate language demands in the standards, we will use the *Language Processes and Language Complexity Framework* (Sato, 2022) based on initial coding from an implemented alignment study (Murphy, Bailey, & Butler, 2006). The Framework is a theory- and research-based framework created to inform the design, development, and evaluation of English language and English language proficiency in various materials.

The Framework allows for the evaluation of the degree to which the academic English language demands in the ELD standards align with the language demands reflected in the state content standards for ELA, mathematics, and science. The Framework, which is based on years of application and research, can be applied across ELD and content area materials, and provides a systematic, explicit, and consistent way to identify and evaluate language demands.

The Framework identifies and describes 15 language processes that hold equal weight: *Identifying, Classifying, Comparing, Inquiring, Imperative, Describing, Defining, Explaining, Summarizing, Interpreting, Analyzing, Extended Thinking, Persuading, Critiquing*, and *Representing*. In addition, the Framework defines and describes three levels of language complexity (low, medium, high).

Method. The alignment study was conducted in phases. The phases were intended to achieve two primary goals. First, as an independent alignment study, we will incorporate stages of review from EdMetric content experts (pre-workshop) and North Carolina educators (workshop) to

maximize professional input from qualified representatives of linguistic, content area, and classroom expertise. Second, we will ensure that the phased process manages the cognitive load to reviewers for effective decision making and reduction of overwhelm.

Alignment was examined using two lenses. First, the concurrence of language processes was evaluated. Second, the alignment of language complexity was evaluated. Language processes of the content standards (all content areas) were evaluated *at each grade level* for alignment to the language processes of the ELD standards *at and below grade level*. To best describe the learning opportunities in the context of academic language, each body of content standards at sampled grade levels (grades 1, 3, 5, 8 and high school) was compared with the ELD standards *at grade band and one grade band below*.

Workshop. EdMetric conducted a two-day, in-person alignment workshop January 30 and 31, 2023, in Raleigh, North Carolina. The workshop involved 34 North Carolina educators who brought both content expertise and experience implementing the ELD standards in their teaching practice. Participants reviewed the language demands associated with the ELD and content standards and deliberated in panels to make final recommendations on language processes and language complexity evident in both the ELD and content standards.

Results. Analyses were conducted to evaluate alignment, comparing the language processes and language complexity of 1429 objectives: 344 ELD objectives from the five WIDA standards with the state's content area standards, 671 objectives from the General Education Standards and 414 objectives from the sample of Extended Standards. Table 2 and Table 1 report overall alignment results.

Discussion. Overall, the alignment evaluation found evidence to support a claim of alignment that the state-adopted English language proficiency standards are aligned with the North Carolina's academic standards. Overall alignment results were summarized for general education and extended (Table 2 and Table 1, respectively).

For both bodies of content standards, all grades and content areas, there was strong or moderate alignment on all alignment evaluations, with the exception of grade 5 general science, which was weakly aligned for language complexity.

Table 1. Overall Alignment – General Education Standards

Content Standards & Grade(s)	ELD Grade(s)	Language Process - Concurrence	Language Process – Concurrence Emphasis	Language Complexity
ELA Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 1	K, 1, K-3	Strongly Aligned	Moderately Aligned	Strongly Aligned

Content Standards & Grade(s)	ELD Grade(s)	Language Process - Concurrence	Language Process – Concurrence Emphasis	Language Complexity
Math Grade 3	K-3, 2-3	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 8	6-8, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Weakly Aligned
Science Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned

Table 2. Overall Alignment – Extended Standards

Content Standards & Grade(s)	ELD Grade(s)	Language Process - Concurrence	Language Process – Concurrence Emphasis	Language Complexity
ELA Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 5	4-5, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math Grade 8	6-8, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math HS EOC	9-12, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Science Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned

Best Practices. The alignment method was implemented for the study in accordance with best practices and industry standards, using processes and procedures that adhered to the American Education Research Association, American Psychological Association, and National Council on Measurement in Education *Standards for Educational and Psychological Testing* (2014). The study was also conducted with attention to the federal peer review requirements.

Section 1. Overview

North Carolina Department of Public Instruction (NCDPI) contracted with EdMetric LLC (EdMetric) to conduct an independent evaluation study of the degree of alignment between two sets of standards—the WIDA English Language Development (ELD) Standards (2020) and North Carolina's academic content standards. The alignment study addressed standards in each ELD grade-level/grade-band (K, Grade 1, Grade band 2-3, Grade band 4-5, Grade band 6-8, Grade band 9-12) and the North Carolina's English/language arts (ELA), mathematics, and science content standards.

The Every Student Succeeds Act (ESSA) of 2015 asks that, "[e]ach state...shall demonstrate that the State has adopted English language proficiency standards that...(ii) address the different proficiency levels of English learners; and (iii) are aligned with the challenging State academic standards" (U.S. Department of Education, 2015, p. 24). The ELD standards should reflect the English language knowledge and skills needed for all English learners (ELs) to access and achieve grade-level academic content as defined by the State's academic content standards. North Carolina adopted the WIDA ELD Standards (2020) as their English language proficiency standards.

This alignment, also referred to as "correspondence," relates the ELD standards to the high-leverage language in the academic content standards, that is, the particular language demands necessary to access grade-level content and attain academic content proficiency. Figure 1 illustrates this correspondence for mathematics.

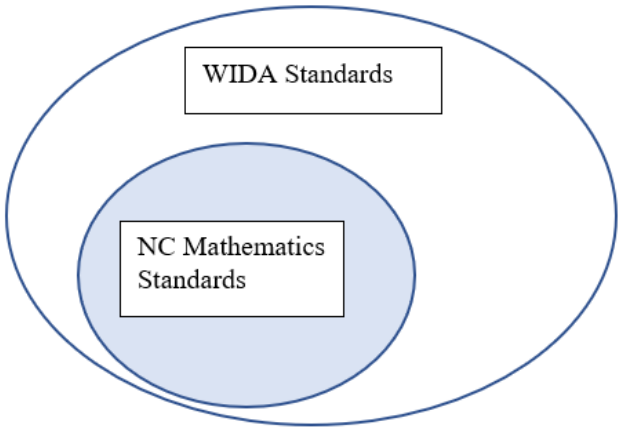

Figure 1. Standards Correspondence Illustration

The results of the study contribute to the validity evidence gathered by NCDPI to demonstrate the degree of alignment between the bodies of standards for state and federal accountability purposes. This study documents the degree to which the language demands evident in the WIDA 2020 ELD Standards sufficiently enable ELs to access the full range

of language expectation in the North Carolina *Standard Course of Study* and North Carolina Extended Content Standards (the North Carolina content standards), including both general education and extended standards.

Literature Overview

The coherence of an assessment system includes the evaluation of how well the content standards, which drive grade-level instruction and assessment, align to EL students' opportunity to gain academic language proficiency and learn in academic English. Consistent with the *Standards for Educational and Psychological Testing* (AERA/APA/NCME, 2014), standards-to-standards alignment evaluation should provide evidence of a degree of correspondence between the bodies of standards measured across the state's assessments.

Content and ELD standards are developed independently but are interdependent when it comes to the academic achievement of EL students. Therefore, research questions to guide an evaluation of standards correspondence, or alignment, rely on (a) an understanding of the target student population served and their academic needs, identification policies, and characteristics of their language acquisition; and (b) defensible comparison strategies and methodologies.

English learner students are characterized by the fact that their first language is not English and that they are concurrently building English proficiency while learning in the content areas. McKay (2006) defined *language learners* as "those who are learning a foreign or second language and who are doing so during the first six or seven years of formal schooling" (p. 1), and Bialystok (2001, p. 5) defined *bilingual learners* as those who "learn two (or more) languages to some level of proficiency." State policies use survey and assessment strategies to identify students who should be classified as ELs for instructional purposes. It is important that students receive adequate support in their ELD in order to achieve in the content areas at grade level.

In support of this aim, studies of the demands of language proficiency and content assessments have identified the need for comparison strategies that meaningfully relate the bodies of respective standards. For example, Stephens and colleagues (2000) conducted a content review of language and content assessments and found a limited relationship between the language tested on the Language Assessment Scales (LAS, Duncan & DeAvila, 1990) and the Iowa Test of Basic Skills (ITBS). Inspection of the syntactic complexity, sentence structures, and vocabulary supported a conclusion that academic discourse requires more sophisticated use of language than the LAS assessed.

Therefore, researchers from fields of linguistics, education, and measurement have focused on codifying important elements of academic English language, including the lexical, grammatical, and discourse features (Bailey, 2007) as well as cognitive, sociocultural, and psychological aspects (Scarcella, 2003; Heritage, Silva, & Pierce, 2007). Some approaches

have focused on the degree to which the academic language demands in the ELD standards are "linked" with the demands evident in state content standards (Bailey, Butler, & Sato, 2007; Murphy, Bailey, & Butler, 2006; Sato, Lagunoff, Worth, Bailey, & Butler, 2005). Cook (2005, 2006, 2007) also defined a framework that uses the concepts of key practice language functions (KPLF) and linguistic difficulty levels (LDL) to code language complexity (Johnson, 2005). Schleppegrell (2004), coming from a functional linguistic perspective, found that the complexity of academic language shapes the way students engage with academic content [e.g., Loban's (1986) study of syntactic complexity progressing from speech to writing], and "studies that measure language complexity have an impact not only on the research but also on the practice of education" (p.14).

In these various approaches, common themes include the need for codifying language functions or processes (e.g., identifying, summarizing). In addition, they emphasize the need for a useful way to describe language complexity that incorporates vocabulary and sentence structure as well as organization and visual presentation.

Based on earlier work (Murphy, Bailey, & Butler, 2006; Sato, Lagunoff, Worth, Bailey, & Butler, 2005; Sato, Lagunoff, & Worth, 2008; Sato & Lagunoff, 2010), Sato (2022) developed a taxonomy that focuses on language processes and language complexity to represent the key academic language demands expected in American classrooms. Based on research, the resulting *Language Processes and Language Complexity Framework* (Framework) was also reviewed and revised by EL teachers who have pedagogical content knowledge for teaching ELs. An advantage of the Sato (2022) Framework is that it provides a common coding system that can be used on any type of educational material, from instructional materials and content standards to assessment items, scoring rubrics, and achievement level descriptors.

Analytic approaches after coding and the review of standards' content are also important for standards-to-standards correspondence and alignment studies. Instances of modifying existing alignment strategies include Webb and Christopherson (2015) modifying the Webb (1997, 1999) alignment methodology. Using the KPLF (Cook, 2005, 2006, 2007), the authors evaluate language and content standards using the traditional concepts of categorical concurrence, depth of knowledge (DOK), range-of-knowledge correspondence (ROK), and balance of representation (BOR).

However, while traditional Webb analytics have a meaningful place in the comparison of standards, characteristics of the EL student population and the intended relationship between ELD and content standards drives toward the need for greater specificity related to language process and language complexity in order to produce actionable results. First, it is important to establish the content standards at grade level as the point of comparison for ELD standards that *precede or are concurrent with* the grade level. Second, it is important to determine the specific language processes that are needed for instruction and practice in order to address instructional plans. Finally, definitions of complexity in terms of language demands are not synonymous with DOK. Language complexity includes

lexical, grammatical, and structural elements not captured in cognitive complexity definitions. Language complexity warrants specific evaluation.

Therefore, this study used an approach that applied the Sato (2022) Framework (Appendix A) as the content analysis tool used across all bodies of standards. With a common coding applied, analytics allow for comparisons of content standards to ELD standards at or below the current grade level. Results can therefore show the specific language processes that correspond between the content standards, which set the overall expectation, and the ELD standards, which should support learning in the content areas. The Framework also operationalizes the concept of language complexity with a comprehensive, language-based approach.

Study Claim

English language proficiency standards should be aligned with the academic language requirements (i.e., academic language demands, language processes, language complexity) of the content standards. This alignment supports a comprehensive, coherent system of academic content standards and assessments that ensure all students have opportunity to learn and progress in the academic content areas. The study claim states,

> *The WIDA 2020 ELD Standards align with the academic English language expectations necessary to enable English Learner students to access and achieve the North Carolina Standard Course of Study.*

To address this claim, the study compared the language demands (*language processes* and *language complexity*, Sato, 2022) of the North Carolina content standards and the ELD standards. We asked, *To what degree do the WIDA 2020 ELD Standards provide English Learners access to the North Carolina grade-level content standards in terms of academic language processes and language complexity?*

Document Purpose

This technical report contains a narrative description of the alignment workshop, detailed information about judgments made by panelists, information about discussions, results of panelists' judgments, detailed summaries of panelists' evaluations, and copies of the handouts and slide decks used during the workshop. In Section 2, the report describes the methodology applied in the alignment study. Section 3 provides information on the roles and responsibilities of those who participated in the study as well as information regarding panelists. Section 4 describes the workshop conducted on January 30 and 31, 2023, in Raleigh, North Carolina. Section 5 reports all study results, including rater agreement rates, results of analysis addressing the study claim, and results of the final evaluation. Section 6 offers a discussion of the study findings, and Section 7 relates them to the *Standards for Educational and Psychological Testing* (AERA, NCME, & APA, 2014).

Appendices provide more detailed information. Appendix A provides detail on the Framework (Sato, 2022). Appendix B provides the design document developed in preparation for the study implementation. Workshop materials including agenda and training slides are provided in Appendix C, and panelist surveys are included in Appendix D.

Section 2. Methodology Overview

The study examined the alignment of the WIDA 2020 ELD Standards with the North Carolina content standards. The results from the study evaluated the degree to which the WIDA standards prepare EL students to access the North Carolina content standards.

To study student access to grade-level content areas, the standards-to-standards alignment examined the degree of concurrence of language processes and language complexity (Sato, 2022) reflected in the WIDA 2020 ELD Standards and the content standards, resulting in information about the degree to which the ELD standards address English language expectations that will enable EL students to access North Carolina content standards.

Language Demand Framework

In order to identify and evaluate language demands in the standards, we applied the Framework (Sato, 2022; Appendix A) based on initial coding from an implemented alignment study (Murphy, Bailey, & Butler, 2006). The Framework is a theory- and research-based framework created to inform the design, development, and evaluation of English language and English language proficiency in various materials.

The Framework allows for the evaluation of the degree to which the academic English language demands in the ELD standards align with the language demands reflected in the state content standards for ELA, mathematics, and science, as well as the ALDs. The Framework, which is based on years of application and research, can be applied across ELD and content area materials, and provides a systematic, explicit, and consistent way to identify and evaluate language demands.

The Framework (Appendix A) identifies and describes 15 language processes that hold equal weight: *Identifying, Classifying, Comparing, Inquiring, Imperative, Describing, Defining, Explaining, Summarizing, Interpreting, Analyzing, Extended Thinking, Persuading, Critiquing,* and *Representing*. In addition, the Framework defines and describes three levels of language complexity (low, medium, high).

Overview of Alignment Study Phases

The alignment study was conducted in phases. The phases were intended to achieve two primary goals. First, as an alignment study designed and executed independently from the NCDPI, we incorporated review first from EdMetric content experts (pre-workshop) and second from North Carolina educators (workshop) to maximize professional input from qualified representatives of linguistic, content area, and classroom expertise.

Second, we used the phased process to manage the cognitive load to reviewers for effective decision making. To ensure no workshop participants were unduly influenced by pre-ratings, we took various steps to empower their decision making. The study leads ensured that participants

understood their role as final decision makers, using the pre-ratings as a starting point but feeling empowered to make all necessary changes. We reinforced this message throughout the training (Appendix C) and checked for comprehension in the readiness survey (Appendix D).

- **Pre-Work (Phase 1) –** As described in Section 3, EdMetric convened a group of language and subject matter experts to evaluate the language demands in the WIDA 2020 ELD Standards and the North Carolina content standards (general and extended) using the Framework (Sato, 2022). All experts had deep experience in alignment work, as well as in their specific content areas. Dr. Deborah Busch (see Section 3) served as our language expert and worked with all content experts to develop a common understanding of the Framework and to ensure its consistent application. The experts coupled this understanding with their deep expertise of the content to evaluate the language demands in each set of standards and assign initial codes.

- **Educator Workshop (Phase 2) –** EdMetric conducted the in-person alignment workshop involving 34 North Carolina educators on January 30 and 31, 2023, in Raleigh, North Carolina. The involvement of the state's educators was critical to this study because of their robust understanding of the state's standards and students—they have both content expertise and experience implementing the standards in their teaching practice. Participants reviewed and revised the Phase-1 work. In particular, educators reviewed the language demands associated with the ELD and content standards.

- **Analyses and Reporting (Phase 3) –** During the third phase, EdMetric analyzed the alignment data for interrater reliability and the degree to which the WIDA 2020 ELD Standards aligned with the language demands of the North Carolina content standards and ALDs. In addition, EdMetric prepared detailed technical documentation of the workshop and the study results.

Content Standards

The North Carolina *Standard Course of Study* and the WIDA 2020 ELD Standards were reviewed in the study. For the purpose of this study, ELA, mathematics, and science content standards in grades K-12 were sampled for review, as described below.

A common nomenclature was applied to describe the levels of the standards to define the unit of analysis as "objectives", as illustrated in Figure 2. Objectives were defined as the smallest unit of the standard. In cases where standards are stated in sub-bullets (e.g., "a.", "b.", etc.), the sub-bullet was considered an objective.

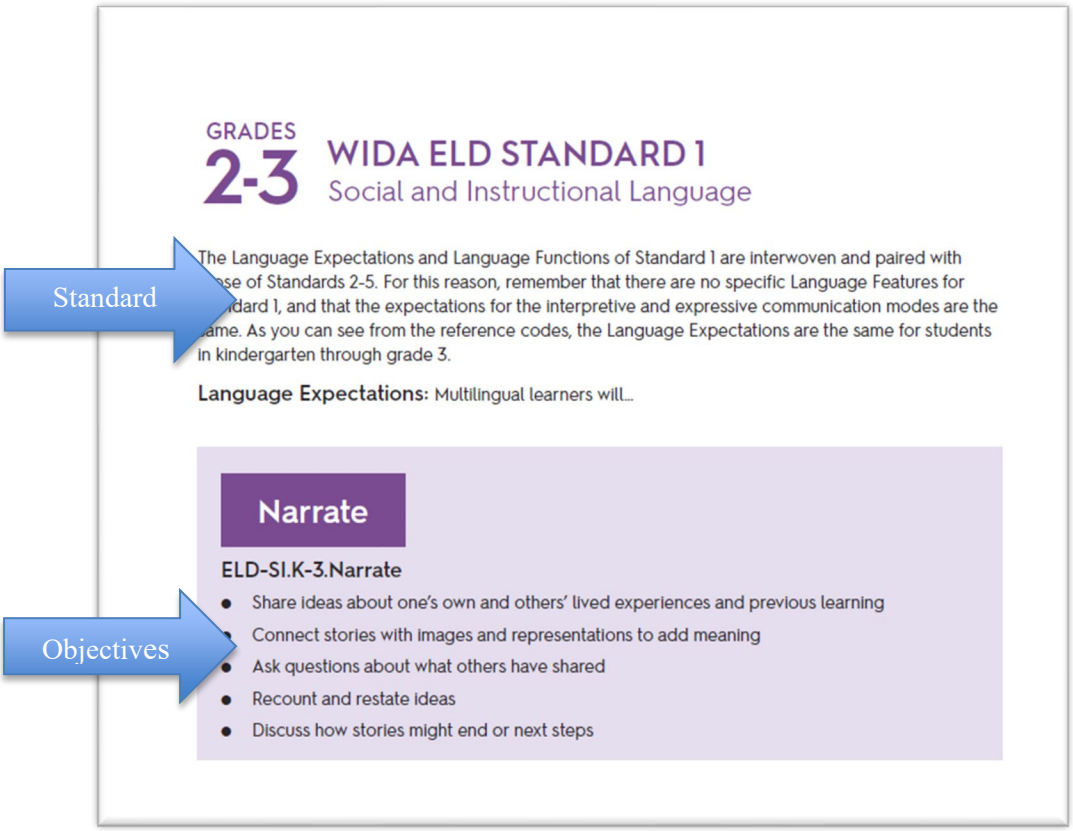

Figure 2. Outtake of the WIDA 2020 English Language Development Standards—Grades 2-3, Standard 1

Sampling Content Standards for Review

NCDPI and EdMetric engaged in a process to identify and define all possible standards that could be reviewed in the study with a focus on ELA, mathematics, and science content, and the five WIDA 2020 ELD Standards. The scope of the study content standards was determined to be standards in the three content areas that are tested under ESSA regulations for both general education [End-of-Grade (EOG) and End-of-Course (EOC) programs] and Extended standards (the NCEXTEND1 alternate assessment program), and to include K-2 standards because these standards prepare students for testing in grades 3-8 and high school.

Given the quantity of possible standards for review, it was determined that a sample of content area standards would be used. Grades 1, 3, 5, 8 and high school standards were selected, with the rationale that each of the sampled grades sets the upper limit of classroom, grade-level expectations to which ELs must perform to succeed in the classroom. Also, there was no available guidance from research literature to guide sampling within grade levels by domain or specific standards. Therefore, sampling was made by entire grade. In high school, grades 9-10

ELA, Math 1, Math 2, and Biology general education standards and ELA, Math 1, and Science Extended standards were included.

EdMetric extracted all approved standards from the state's online .pdf documents and transferred them to spreadsheets. All spreadsheet tables were shared with DPI for review, edits, and approval.

The common nomenclature was then applied at the levels of the standards to define the unit of analysis: "objectives" are defined as the smallest unit of the standard. In cases where standards are stated in sub-bullets (e.g., "a.", "b.", etc.), the sub-bullets were considered an objective.

Final counts of the approved objectives for the study are reported in Table 3 for the content standards and ELD Standards.

Table 3. Study Sample of North Carolina Content and ELD Standard Objectives—Overall Counts

Content Area	General		Count of Objectives	ELD Standard	Count of Objectives	Grand Total
ELA	345	238	583	Standard 1	40	
				Standard 2	97	
Math	185	71	256	Standard 3	65	
Science	141	105	246	Standard 4	75	
				Standard 5	67	
	Total		1085		344	1429

Applying the Framework

A common approach was applied in the application of the Framework (2022). Dr. Edynn Sato conducted the initial training with EdMetric staff November 29, 2022. This training was recorded, and excerpts were included in the workshop training for consistency. Training points included background and purpose of the Framework, orientation and application of both language process and language complexity codes, and specific decision rules, as described in the Framework.

Figure 3 illustrates the application of the Framework using an example from the content standards (Sato, personal communication, 2022).

NC.4.OA Operations and Algebraic Thinking Represent and solve problems involving multiplication and division. NC.4.OA.1 Interpret a multiplication equation as a comparison. Multiply or divide to solve word problems involving multiplicative comparisons using models and equations with a symbol for the unknown number. Distinguish multiplicative comparison from additive comparison. Multiplication facts to 12: find the missing factor (4-D.5) Compare numbers using multiplication (4-D.10) Compare numbers using multiplication: word problems (4-D.11) Comparison word problems: addition or multiplication? (4-F.3)	Notes: It is important to first draw a distinction between cognitive demands and language demands. Represent and solve are cognitive demands. Interpret is a cognitive demand. Word problems signals language demands are involved. The language of comparisons will be used in these word problems, as well models, equations, and symbols. This suggests the following are most likely the primary language demands: Comparing; Representing There may be other, or "secondary" language demands in word problems such as: Identifying (e.g., labeling); Classifying (e.g., classification, sequence); Describing Multiplication facts and comparing numbers using multiplication typically would involve numbers and symbols (when not presented as a word problem). Therefore, Representing is the language demand. It also is important to note that when such information is presented to a student (in instruction or on a test), there are usually directions and questions. Therefore, Inquiring and Imperative are also language demands; however, these may be considered more "global" and not "standard-specific."

Figure 3. Example of the Application of the Framework to Content Standard NC.4.OA

Figure 4 illustrates the application of the Framework using an example from the WIDA 2020 ELD Standards.

WIDA Can Do Descriptors **Grade band 4-5** **KEY USE OF RECOUNT**	Note: A decision needs to be made about focus -- is the intent to evaluate the language demand for each level 1-6, or focus only on the levels that would reflect "grade-level proficiency" for each domain. Another option is to focus on the "Recount" level and list language demands across the levels 1-6, rolling up the information to the "Recount" level.
READING: **Level 1: Process recounts by** Identifying words in context during oral reading of illustrated text on familiar topics or experiences	Typically, a word is used to name or label an object, idea, fact, etc. Therefore, the language demand is likely Identifying
Highlighting previewed or familiar phrases	The language involved is most likely: Classifying. That is, words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs and/or words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). There may be other, or "secondary" language demands in word problems such as: Identifying (e.g., labeling); Describing; Representing
Level 2: Process recounts by Classifying time- related language in text as present or past	
• Identifying the "who," "what," "where," and "when" in narrative text with a partner	The language involved is most likely: Describing. That is, words, phrases, or sentences to express or observe the attributes or properties of an object, action, event, idea, or solution. There may be other, or "secondary" language demands in word problems such as: Classifying (e.g., sequence); Comparing; Defining; Explaining; Representing

Figure 4. Example of the Application of the Framework to WIDA Can Do Descriptors 4-5

Content Expert Review

A number of factors played into the approach taken to rating all bodies of standards. First, it was deemed important that all raters apply the same rating approach (Sato, 2022) with consistent training and application. The consistent application of the Sato Framework would allow for the comparison of academic language demands across the bodies of standards.

Second, it was determined that expertise was needed across three groups of professionals: (1) linguistics/language experts, (2) content experts, and (3) the state's educators who are well-versed in North Carolina classrooms, English learner students, and content/ELD Standards. The process, described previously, was applied with fidelity. Additional detail is included here:

Therefore, EdMetric content experts conducted an initial alignment evaluation of the language demands of the WIDA 2020 ELD Standards and the North Carolina content standards. Experts were trained on the Sato (2022) Framework (Appendix A) to ensure understanding and consistency of application. These experts used the Framework to evaluate each of the WIDA ELD Standards and the North Carolina content standards. The language demands reflected in each of the standards were identified and coded. The level or range of language complexity reflected in each standard was also evaluated and coded.

Evaluation Criteria

Alignment was examined using two lenses: the concurrence of language processes and the alignment of language complexity.

The language processes of the content standards (all content areas) were evaluated *at each grade level* for alignment to the language processes of the ELD Standards. Two primary factors were considered in establishing which standards to compare at each grade level. First, it is important that students' exposure to instruction and the opportunity to learn the ELD Standards precede or occur concurrently with their exposure to the content standards. This is to ensure that students have due opportunity to learn and apply their learning. Second, comparison of the standards should have a meaningful relationship with the timeframe that students participate in EL programs. While many students are identified as ELs in early childhood, some students enter the status later in their K-12 program. Therefore, to best describe the learning opportunities in the context of academic language, each body of content standards at grade level was compared with the ELD Standards *at the current grade band and one grade band below*.

Defining Comparisons

Standards were compared analytically (Table 4), relating the ELD Standards from the grade band(s) below to the sampled standards, for both general education and Extended standards across the studied content areas.

Table 4. Summary of Comparisons of ELD Grade Bands Standards to Content Standards (General Education & Extended)

Comparison	Content Standards	ELD
a	Grade 1	K, 1, K-3
b	Grade 3	K-3, 2-3
c	Grade 5	4-5, 4-12
d	Grade 8	6-8, 4-12
e	High School	9-12, 4-12

Table 5 relates these comparisons across grade(s).

Table 5. Standard Objectives Counts by Grade(s) Comparison Groups

Body of Standards	Standards	*Grade 1*			*Grade 3*		*Grade 5*		*Grade 8*		*High School*		Total
General	ELA			67		73		72		66		67	345
	Math			23		20		17		25		100	185
	Science			17		25		26		31		42	141
Extended	ELA			51		45		46		49		47	238
	Math			15		11		11		13		21	71
	Science			18		19		17		18		33	105
Comparison Grade(s)		***K-3***	***K***	***1***	***K-3***	***2-3***	***K-3***	***4-5***	***4-12***	***6-8***	***4-12***	***9-12***	
ELD	Standard 1	20*			20*		20*		20*		20*		40
	Standard 2		10	11		13		21		21		21	97
	Standard 3		5	5		13		14		14		14	65
	Standard 4		9	11		13		14		14		14	75
	Standard 5		4	10		12		13		14		14	67
												Total	1429

Note. *40 total, unique objectives for ELD Standard 1 exist, divided in two grade bands (K-3; 4-12). Standard 1 was included for all comparisons; therefore, 20 is indicated for each grade comparison, but only 40 objectives were rated total.

Language Process Concurrence

Language process concurrence refers to how similarly and consistently language processes are represented in the content standards and ELD Standards. The intent of this criterion, as used in this study, is to examine the extent to which the language processes required at grade level for the North Carolina content standards are addressed by the language processes described in the

grade band and the grade band below of the ELD Standards.

When investigating access, we expected that the WIDA 2020 ELD Standards would encompass the language skills expected by the North Carolina content standards. Figure 5 conceptualizes the different types of alignment that may be uncovered through the study. The smaller circle represents the language skills that are expected to access the content standards. The larger circle shows the language skills that are expected through the ELD Standards. A student will only be able to access the breadth of the content standards if all the language demands expected in the system are found in the ELD Standards. The challenge of the technical analyses is to figure out which Venn Diagram best represents the relationship between language expectations of the content standards and the ELD Standards. In a situation where some skills fall outside of the ELD Standards, a determination must be made about what degree of alignment is acceptable.

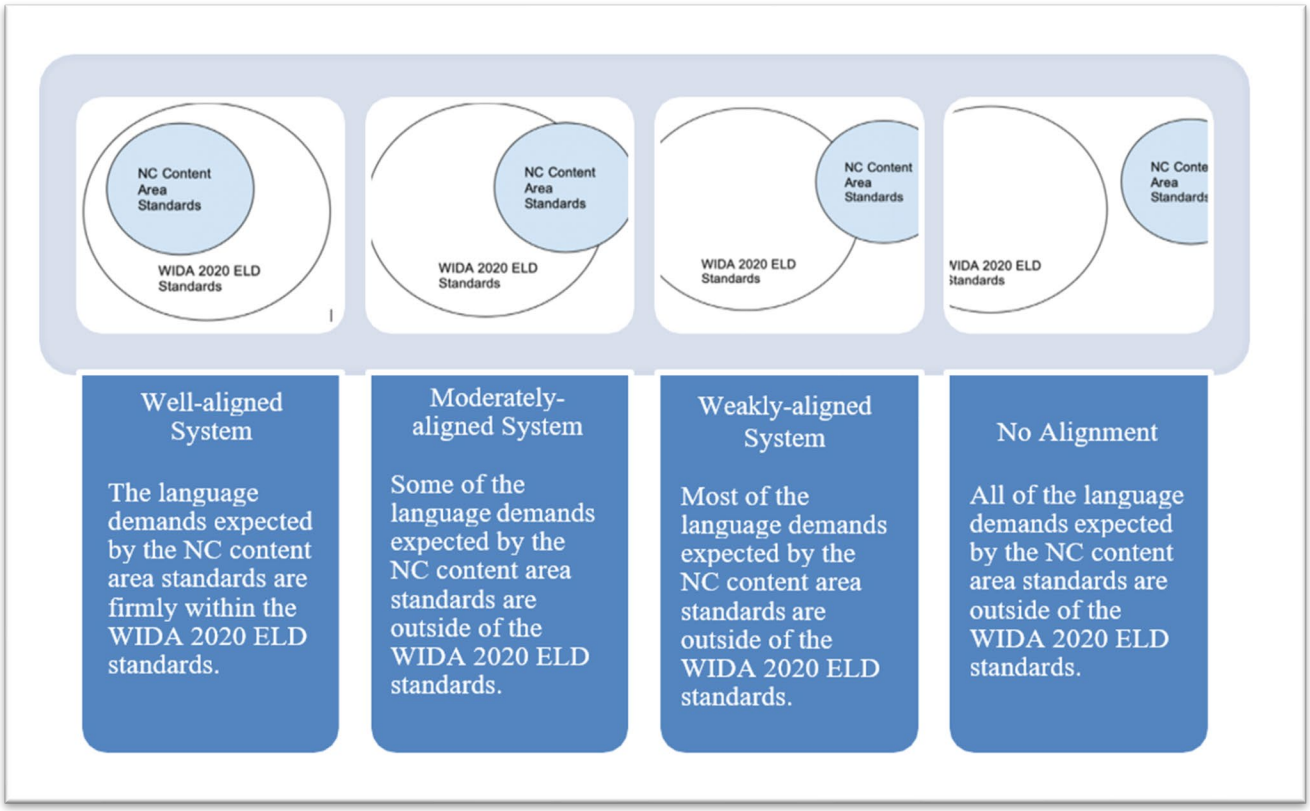

Figure 5. Conceptual Illustration of Possible Types of Alignment

To determine the relationship between the two sets of standards, we will find the language demands associated with each North Carolina content standard. We will then look to see if that language demand is covered by the WIDA 2020 ELD Standards.

Table 6 shows an illustration of this logic for an example standard (NC.4.OA.1).

Table 6. Example of Language Demands Associated with North Carolina Standard

Standard	Language Process	In the WIDA 2020 ELD Standards?
NC.4.O A.1	Representing	Yes
	Identifying	Yes
	Describing	Yes
	Defining	Yes
	Comparing	Yes
	Analyzing	Yes

For each standard, we investigated the extent to which the expected language demands, as established by the North Carolina content standards, are found in the WIDA 2020 ELD Standards.

A first evaluation for language process concurrence used reviewers' final alignment judgments to establish the language processes by each standard. For each language process found in the North Carolina content standards, the ELD Standards were compared in terms of the number of "hits", or alignments, for the language process. If the ELD standards contained at least one instance of the language process in the content standards, it was considered aligned. If there was no evidence of the language process, it was considered not aligned. Counts of alignments (Table 7) were rolled up across all standards for analysis, discussed in Chapter 5.

Table 7. Language Process Evaluation (Yes/No)

	Evaluation
"Yes" = The ELD Standards contained one or more instances of the language process as evident in the North Carolina content standards.	Alignment
"No" = The language process as evident in the North Carolina content standards was not represented in the comparison ELD Standards.	No Alignment

In addition, a second evaluation looked at the extent to which the relative emphasis (weight) of the language processes in the grade band and the grade band below of the ELD Standards is similar to the emphasis of similar expectations on the Content Standards.

To identify the patterns in these relationships, we compared the percentage of hits for each body of standards in the comparison. Then we found the difference in these percentages. Because standards do not correspond at the same level of granularity, instructional relevance, or curricular emphasis, we urge the reader to be cautious in the interpretation. However, because emphasis in

the standards can impact curriculum and instruction, a standardized value (percentage) is used to make the comparison.

To interpret the results meaningfully, we applied a criterion to each difference. For instances where the percentage of hits from the content standards was less than or equal to 5% that of the comparison ELD Standards, we assigned a "strongly aligned" label. When that percentage was more than 5% and less than or equal to 10%, we assigned "moderately aligned." When that percentage was more than 10% and less than or equal to 15%, we assigned "weakly aligned," and when it was over 15%, we assigned "not aligned."

Then for each assignment, we allocated points to these labels to establish an overall alignment evaluation for each grade and content area:

- Strongly aligned = 4
- Moderately aligned = 3
- Weakly aligned = 2
- No alignment = 1

Language Complexity

The ELD Standards should have the same language complexity and rigor as that expected by the content standards. The reviewers investigated the complexity of the standards and assigned a rating of low, medium, or high to correspond with the Sato (2022) Framework's definition of language complexity. Each objective (content and ELD) was assigned a complexity level (i.e., 1-3).

Complexity consistency of the ELD Standards to the content standards was evaluated (Table 8). The percentage of ELD Standards at or above the complexity of the content standard's target complexity was evaluated. Targets will be established as the median of the content standards' language complexity ratings by grade level. Again, the ELD Standards used in the comparison were from the grade band of the comparison grade plus the grade band below.

Additionally, the ELD Standards are specific to different content domain's academic language. Language complexity was compared overall by grade(s) but also by content area: ELA to Standard 2 (Language Arts) and Standard 5 (Social Studies), mathematics to Standard 3 (Math), science to Standard 4 (Science), and Standard 1 was compared grossly to all content standards in applicable grades.

Table 8. Language Complexity Evaluation

Criteria	Evaluation
50% or more of the ELD Standards were at or above the complexity level of the content standard target complexity.	Strong Alignment
Less than 50% but more than or equal to 40% of the ELD Standards were at or above the complexity level of the content standard target complexity.	Moderate Alignment
Less than 40% but more than or equal to 30% of the ELD Standards were at or above the complexity level of the content standard target complexity.	Weak Alignment
Less than 30% of the ELD Standards were at or above the complexity level of the content standard target complexity.	No Alignment

Section 3. Roles and Responsibilities

This section describes the roles and responsibilities for participants and study leadership.

Expert Review

Four expert raters applied the Sato (2022) Framework to all standards under Dr. Anne Davidson's supervision. Dr. Deborah Busch served as the language expert and lead rater. Dr. Melia Franklin served as the ELA expert, Ms. Shina Roc-Bassett as the mathematics expert, and Ms. Kristen McKinney as the science expert. Each rater brings deep knowledge of alignment evaluations, standards and assessment, English language development, and linguistics and academic language demands. See Table 9 for the roles and qualifications of study staff.

Table 9. Qualifications of Expert Reviewers

Staff Member	Study Role	Qualifications
Dr. Anne Davidson	Study Lead	Dr. Davidson has led numerous alignment studies and has worked on EL programs for over a decade. She led one of the first alignment studies between EL and ELA standards.
Dr. Deborah Busch	Linguistics/Academic Language Expert	Dr. Busch has decades of experience in second language education, including linguistics, academic language, and the development of K-12 assessments.
Dr. Melia Franklin	ELA Content Expert	Dr. Franklin was the ELA Director for the Missouri DOE and oversaw the development of the statewide ELA assessment.
Shina Roc-Bassett	Mathematics Content Expert	Ms. Roc-Bassett has served as a K-12 mathematics assessment specialist for over 15 years and has worked on second language proficiency exams.
Kristen McKinney	Science Content Expert	Ms. McKinney led the implementation of three-dimensional science standards and the development of state science assessments for the Missouri DOE.

Panelists

Following the expert review, 34 educators convened in an in-person workshop in Raleigh, North Carolina, on January 30 and 31, 2023. An online orientation was available asynchronously preceding the workshop to orient panelists with the online system.

For the alignment study, North Carolina educators were recruited for nine grade-span panels. Each panel had at least one grade-level content teacher, one EL teacher, and one special education teacher. The EL teachers had strong knowledge of the WIDA 2020 ELD Standards, the general education teachers had strong knowledge of the North Carolina content standards, and the special education teachers had strong knowledge of the North Carolina Extended Standards. Table 10 shows the panel configuration for the study.

EdMetric defined the parameters that should be considered when recruiting teachers in order to best support the claim we are evaluating (e.g., region of state, school type, panelist demographics, etc.). The state was stratified in terms of region (six regions). Variables like school type (public/charter); and demographic like gender, ethnicity, and race; and professional experience were considered for recruiting panelists. This ensured panelists represented the state.

Next, EdMetric worked closely with NCDPI to recruit and assign panelists to alignment work teams and to collect relevant information about workshop participants, including demographic information and teaching experience. All participants had at least two years' experience in the classroom and 18 (53%) had over 10 years' experience.

Table 10. Final Panel Configuration

Grade/Grade Span	ELA	Math	Science	Total Number of Panelists
K-4	5	3	3	11
5-8	5	3	4	12
High School	4	4	3	11

Table 11 reports demographic characteristics of workshop panelists, and Table 12 reports characteristics of their professional experience.

Table 11. Panelist Demographics

Demographic (n-count = 34)	N	Percentage
Gender		
Female	32	94.1%
Male	2	5.9%
Ethnicity		
Hispanic - No	30	88.2%
Hispanic - Yes	4	11.8%
Race		
Asian	2	5.9%
Black or African-American	7	20.6%
Multiple Races	2	5.9%
White or Caucasian	23	67.6%

Table 12. Panelist Experience Characteristics

Current Profession (n-count = 34)	N	Percentage
Community Type		
Rural	19	55.9%
Urban	6	17.6%
Town	3	8.8%
Suburban	6	17.6%
Professional Title		
General Education Classroom Teacher	18	52.9%
Curriculum Specialist	2	5.9%
Special Education Classroom Teacher	5	14.7%
Other Educator	2	5.9%
English Learner Teacher	7	20.6%
Professional Experience		
ELA Instruction	21	61.8%
Mathematics Instruction	15	44.1%
Science Instruction	17	50.0%
Instruction of Students with Significant Cognitive Disabilities	7	20.6%
Instruction of English Learners	20	58.8%
Instruction of English Learners with Disabilities	15	44.1%
Reading or Literacy Intervention/Support	12	35.29%

NCDPI Staff

Shannon Jordan, section chief of Testing Policy at NCDPI, welcomed panelists during the opening session of the workshop. In addition, NCDPI staff were available throughout the workshop to answer policy-related questions; however, they did not participate in workshop activities otherwise.

Workshop Roles and Responsibilities

Various roles and responsibilities were covered to address the requirements of an alignment study with fidelity, including lead facilitator and content area facilitators. Table 13 designates staff and specifies each person's role in the study.

Table 13. Workshop Staff

Staff Member	Role	Responsibility
Dr. Anne Davidson	Study Lead and Workshop Lead Facilitator	Dr. Davidson designed and oversaw the workshop. She provided workshop oversight and answered panelist questions. She also provided room support for the content areas.
Dr. Karla Egan	Study Co-Lead	Dr. Egan supported the design of the workshop.
Dr. Deborah Busch	Study Language Expert	Dr. Busch supported the workshop preparation and materials development related to the Sato (2022) *Language Processes and Language Complexity Framework.*
Dr. Phoebe Winter	Workshop Content Area Lead	Dr. Winter served as the content area lead for the mathematics group.
Dr. Hillary Michaels	Workshop Content Area Lead	Dr. Michaels served as the content area lead for the science group.
Dr. Melia Franklin	Workshop Content Area Lead	Dr. Franklin served as the content area lead for the ELA group.

Section 4. Workshop Implementation

In this section, we describe the study workshop conducted in Raleigh, North Carolina, on January 30 and 31, 2023.

In-Person Alignment Workshop

EdMetric led the in-person alignment workshop involving North Carolina educators. The heart of the meeting was participants' review, discussion, and revision aspects of the Phase-I work.

After the NCDPI introduction, Dr. Davidson kicked off the meeting with general training (Appendix C) including on the Sato (2022) Framework (Appendix A), which included a video of Dr. Sato's training. Following the general training, panelists were divided into small groups and applied the Framework to a practice set of standards. Panelists then took a brief online survey (Appendix D) to gauge their level of understanding of the Framework and its application, as well as to identify areas of confusion or concern. After Dr. Davidson addressed questions identified by three panelists, all panelists began their alignment work.

Panelists then worked both in groups and independently to complete their work. EdMetric staff monitored the workshop tool to ensure that work was being completed in a timely manner. Facilitators Drs. Winter, Michaels, and Franklin were available to answer panelists' questions. Throughout the workshop process, EdMetric staff surveyed participants to ensure the effectiveness of the training and panelists' understanding of the alignment processes. NCDPI content experts were available to answer questions raised about policy-related issues.

During the workshop, panelists participated in multiple rounds of discussion to talk about areas of disagreement in their alignment work. Panelists were encouraged (but not forced) to come to a joint agreement during the meeting when possible. The workshop concluded with a participant evaluation that contributed to the overall validity of the alignment process.

A high-level agenda based on the workshop design for Day 1 (Table 14). The complete agenda is included in Appendix C.

Table 14. Workshop Agenda – Day 1

Day 1	
Times	**Activities**
8:30 - 9:30 am	*All Study Participants* ○ Welcome from the North Carolina Department of Public Instruction ○ Welcome from EdMetric ○ Housekeeping ○ Training Overview ○ Alignment Introduction ○ Module 1 Slides *General Materials:* ○ Content Standards ○ Extended Standards ○ WIDA Standards ○ Framework Document
9:30 - 9:45 am	*Break*
9:45 - 10:45 am	*All Study Participants* ○ Language Process Training ○ Module 2 Language Process Slides ○ Language Complexity Training ○ Module 3 Language Complexity Slides ○ Module 4 Decision Rules Slides
10:45 am - 12:00 pm	*Panels* *Training Set* ○ Panelists independently rate 10 standards selected for training. ○ Training Set Tool Link ○ Group leaders will remain with the group during this time. ○ Discuss training standards with disagreement. ○ Re-rate training standards. ○ Readiness Survey
12:00 - 12:30 pm	*Lunch*
12:30 - 3:30 pm	*Common Set #1 - Calibration* ○ Calibration Validation Training ○ Module 5 Calibration Validation Training Slides ○ Panelists independently rate 30 standards. ○ Calibration Set Tool Link ○ Group leaders will remain with the group during this time. ○ Discuss training standards with disagreement. ○ Re-rate training standards.
3:30 - 3:45 pm	*Break*
3:45 - 5:00 pm	*Begin Common Set #2 - Validation* ○ Panelists independently rate 30 standards. ○ Validation Set Tool Link ○ Group leaders will remain with the group during this time. ○ Discuss standards with disagreement. ○ Re-rate standards.

Opening Session and Training Overview

The workshop began with an opening session where a member of the NCDPI leadership welcomed and thanked panelists and provided an overview of the assessments and content standards and the many ways that educators have shaped the assessments. Next, the EdMetric lead facilitator and experts provided a training session that overviewed the Framework and alignment process for the panelists.

After the opening session, panelists worked at the tables specific to their assigned group and engaged in further training. A volunteer table leader kept track of time and encouraged the group through a review of a small number of practice standards. The purpose of this part of the training was to develop a common understanding of the Sato (2022) Framework and to ensure its consistent application across panelists. The experts then coupled this understanding with their deep expertise of the content to evaluate (code) the language demands in each set of standards.

Following the completion of training, panelists took a readiness survey (Appendix D) which asked them to indicate whether they believed they are prepared to move forward to standards review and discussion rounds. Throughout the workshop, panelists were able to contact EdMetric staff with any questions or feedback.

EdMetric trained panelists in multiple ways during the workshop.

- **Large-group Training.** Immediately following welcome from NCDPI, EdMetric staff provided an overview of alignment and why it is important.

- **Small-group Practice.** Once panelists were in their small groups, EdMetric facilitators introduced the alignment tool and guided the panelists through the first five objectives. Objectives for training were selected purposefully to capture key decision rules and to represent the content area subdomains and grade span of the panel. This allowed panelists to immediately practice the concepts on which they had just been trained.

- **Readiness Survey.** After small-group practice, panelists took the short readiness survey. This survey asked panelists if they felt prepared to begin the first alignment task—evaluating the expert ratings of language demands for each set of standards (North Carolina content standards and WIDA ELD Standards). If a panelist answered "no," then an EdMetric facilitator met with the panelist individually to answer any questions or brought the question to the entire panel.

- **PowerPoint Slides.** Part of large-group training and small-group practice involved referring to the PowerPoint slideshows.

Prior to the Workshop

EdMetric used a Moodle website for all workshop panelists. The site served as a centralized browser-based location for all workshop materials. The site allowed each panelist to maintain a separate login and find all study materials and tools in a centralized location. EdMetric provided Chromebooks for all panelists.

An asynchronous orientation exercise was made available to the panelists to familiarize them with the alignment study's purpose and website prior to the workshop.

Panelists registered for the workshop using Google Forms. Prior to the workshop, all panelists were asked to sign a non-disclosure agreement. Once a non-disclosure agreement was received, a panelist received a meeting invitation with the link to Zoom.

Round Process

In this section, we describe the round-by-round planned implementation for the workshop.

> ***Round 1.*** Following the review of the set of training objectives, panelists independently aligned the remaining objectives. Panelists remained at their tables for this work.
>
> ***Round 2.*** Panelists discuss those objectives where a majority of panelists (more than 50%) disagreed with the original expert rating on language demand codes. The facilitators guided the discussion through each objective by showing panelists where a disagreement occurred and asking panelists to discuss why they made the alignments that they did. Once panelists finished the discussion, they independently aligned the flagged standards.

Final Evaluation Survey

After completing the alignment tasks, panelists completed a final evaluation. Panelists were asked for their opinions on the procedure and were asked to provide demographic information. They were also be given the opportunity to provide qualitative feedback for the workshop.

Data Management & Security

EdMetric used a cloud-based approach to data management and security. For data management of non-secure documents and information, we used Google Workspace tools and applications to integrate teams working in different locations.

We used Moodle to organize the workshop. By using Moodle, all panelists had unique log-ins, and we could easily turn on and off access to the workshop, thereby controlling access to data. The Moodle site served as a central location for all panelist work, and it provided a single place for panelists to log-in for workshop activities.

Capturing Results

EdMetric used a customized alignment tool for the study. This tool allowed panelists to enter their alignment ratings and allowed EdMetric to capture and aggregate data in real time. We fed the final results from this tool into our data analysis program, which allowed us to efficiently report alignment results for study criteria.

Section 5. Results

Results of the study are reported in this section, including rater agreement, descriptive and alignment analysis, and the results of the workshop final evaluation.

Rater Agreement

Agreement between workshop panelists and initial ratings assigned by EdMetric experts are reported in Table 15. While there is no clear guidance from research literature for interpretation of this agreement, it is reasonable that two groups of ratings would agree to some degree and less than 100%. Perfect agreement would mean that panelists did not question the initial ratings. Also, because panelists were teachers in North Carolina schools while EdMetric experts were from outside the state, we expected less than high agreement rates (e.g., >90%) given the differences in the two rating groups' expertise and focus.

Agreement ranged from 45.05% in the K-4 Science panel to 81.69% in the high school ELA group, as expected. The lower agreement for K-4 Science might be explained by the fact that the three-dimensional science standards have relatively high language complexity.

Table 15. Panelist Agreement with Initial Ratings

Grade	Content Area	Number of Items	Initial Agreement
K-4	ELA	270	67.82%
5-8	ELA	205	66.75%
HS	ELA	205	81.69%
K-4	Math	118	63.06%
5-8	Math	121	57.56%
HS	Math	149	54.60%
K-4	Science	133	45.05%
5-8	Science	120	61.52%
HS	Science	108	71.77%

Table 16 reports the agreement between the panelists' final ratings and the initial ratings assigned by EdMetric experts. Again, the rates suggest that panelists were empowered to change initial ratings. There are no research-based guidelines for interpretation of agreement.

The rates were generally higher for Language Process than for Language Complexity. Overall agreement was calculated by averaging the agreements for Language Process and Language Complexity. Overall rates ranged from 45.64% in high school mathematics to 87.50% in grades 5-8 science. A possible explanation for the lower agreement for high school mathematics might the higher language complexity compared with the lower levels of math.

Table 16. Agreement of Final Data to Initial Ratings

Grade	Content Area	Number of Items	Language Process	Language Complexity	Overall
K-4	ELA	270	81.11%	55.56%	68.33%
5-8	ELA	205	89.27%	72.20%	80.73%
HS	ELA	205	97.07%	75.12%	86.10%
K-4	Math	118	83.05%	50.00%	66.53%
5-8	Math	121	81.82%	55.37%	68.60%
HS	Math	149	53.69%	37.58%	45.64%
K-4	Science	133	75.19%	78.95%	77.07%
5-8	Science	120	85.83%	89.17%	87.50%
HS	Science	108	92.59%	77.78%	85.19%

Alignment Evaluation

Alignment was examined using two lenses. First, the concurrence of language processes was evaluated. Second, the alignment of language complexity was evaluated.

As discussed earlier, the language processes of the content standards (all content areas) are evaluated *at each grade level* for alignment to the language processes of the ELD Standards *at and below grade level*.

Language Process Concurrence

Language process concurrence evaluated:

- the extent to which the language processes required at grade level for the NC Content Standards are addressed by the language processes described in the grade band and the grade band below of the ELD Standards; and

- the extent to which the emphasis (weight) of the language processes in the grade band and the grade band below of the ELD Standards is similar to the emphasis of similar expectations on the NC Content Standards.

Reviewers' alignment judgments were used to establish the language processes by each standard (both content and ELD).

Table 17 illustrates the concurrence of language processes, as described in Section 2.

Table 17. Illustration of Language Processes Concurrence for One Content Standard

Standard	Language Process	ELD Standards* Include Language Process
NC ELA – High School **L.9-10.3**: Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.	Identifying	Yes
	Analyzing	Yes

Note. *ELD Standards considered for comparison were all ELD Standards at the grade band plus one grade band below.

The extent to which the language processes required at grade level for the content standards are addressed by the language processes described in the ELD Standards are reported in Table 18 and Table 19 for general education and extended standards, respectively.

For the general education standards (Table 18), all language processes evident in the content standards were present in the comparison ELD Standards. There was an exception for *Representing* again, which was not evident in the ELD Standards for grades 5 and 8 mathematics and high school mathematics. For high school science, *Imperative* was not represented.

In almost all cases for the extended standards (Table 19), a language process evident in the content standards was present in the comparison ELD Standards. There was one exception of *Representing*, which was not evident in the ELD Standards for grades 5 and 8 mathematics and high school mathematics and science.

Table 18. Language Process Concurrence – General Education Standards

Grade	Identifying	Classifying	Comparing	Inquiring	Imperative	Describing	Defining	Explaining	Summarizing	Interpreting	Analyzing	Extended Thinking	Persuading	Critiquing	Representing	% Language Process Represented in ELD Standards	Overall Evaluation
English Language Arts																	
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
9-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
Mathematics																	
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned
HS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned
Science																	
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
HS	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	93.3%	Strongly Aligned

Table 19. Language Process Concurrence - Extended Standards

Grade	Identifying	Classifying	Comparing	Inquiring	Imperative	Describing	Defining	Explaining	Summarizing	Interpreting	Analyzing	Extended Thinking	Persuading	Critiquing	Representing	% Language Processes Represented in ELD Standards	Overall Evaluation
English Language Arts																	
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
9-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
Mathematics																	
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned
M1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned
Science																	
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0%	Strongly Aligned
HS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	93.3%	Strongly Aligned

For each language process found in the content standards, the ELD Standards were compared for emphasis in terms of the percentage of hits for the language process (see Section 2).

The relative emphasis, as described as the percentage of instances, of a given language process identified in the content standards as compared with the emphasis of that language process in the comparison ELD Standards is reported in Table 20 for general education standards and Table 21 for extended standards.

As discussed in Section 2, to identify the patterns in these relationships, we compared the percentage of hits for each body of standards in the comparison. Then we found the difference in these percentages. Because emphasis in the standards can impact curriculum and instruction, a standardized value (percentage) is used to make the comparison.

To interpret the results meaningfully, we applied a criterion to each difference. For instances where the percentage of hits from the content standards was less than or equal to 5% that of the comparison ELD Standards, we assigned a "strongly aligned" label. When that percentage was more than 5% and less than or equal to 10%, we assigned "moderately aligned." When that percentage was more than 10% and less than or equal to 15%, we assigned "weakly aligned," and when it was over 15%, we assigned "not aligned." Then for each assignment, we allocated points to these labels to establish an overall alignment evaluation for each grade and content area (Strongly aligned = 4; Moderately aligned = 3; Weakly aligned = 2; No alignment = 1).

For both general education and extended standards, there was overall strong or moderate alignment for all grades and content areas. Both median and mean ratings are provided with the overall alignment. Across the grades and content areas, the median evaluation score was 4 (Strongly Aligned). The mean evaluation score ranged from 3.40 (grade 5 mathematics extended standards) to 3.93 (grade 5 ELA general standards).

For the general education standards, there was strong or moderate alignment in mathematics by comparison. There was no alignment for *Representing* (grade 1 and grade 3) and *Identifying* (grades 5, 8, and high school) as well as *Comparing* (grade 1) and *Explaining* (grade 3). For science, there was overall strong alignment, but there was no alignment in grade 8 and high school for the *Explaining* language process.

For the extended standards, *Identifying* was not aligned or weakly aligned in all three content areas for at least some grades (grade 1, 3, and 5 in ELA; grades 1, 5 and 8 for math; grade 1 and 3 science), *Classifying* (math grades 1 and 5) and *Comparing* (math grade 8) and *Describing* (math high school). Also, there was no alignment for *Representing* in science high school and *Explaining* in science grade 8.

Table 20. Difference in Percent Language Process Concurrence – General Education Standards to ELD Standards

Language Process	Grade 1	Grade 3	Grade 5	Grade 8	High School
English Language Arts					
Identifying	Weakly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned	Moderately Aligned
Classifying	Strongly Aligned	Moderately Aligned	Moderately Aligned	Moderately Aligned	Moderately Aligned
Comparing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Inquiring	Moderately Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Imperative	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Describing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Moderately Aligned	Strongly Aligned
Defining	Strongly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Explaining	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Summarizing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Interpreting	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Analyzing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Extended Thinking	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Persuading	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Critiquing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Representing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Median	4.00	4.00	4.00	4.00	4.00
Average	3.80	3.80	3.93	3.87	3.87
Overall Evaluation	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Mathematics					
Identifying	Strongly Aligned	Strongly Aligned	Not Aligned	Not Aligned	Not Aligned
Classifying	Weakly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned

Language Process	Grade 1	Grade 3	Grade 5	Grade 8	High School
Comparing	Not Aligned	Strongly Aligned	Strongly Aligned	Weakly Aligned	Strongly Aligned
Inquiring	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Imperative	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Describing	Strongly Aligned	Strongly Aligned	Moderately Aligned	Moderately Aligned	Strongly Aligned
Defining	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Weakly Aligned
Explaining	Strongly Aligned	Not Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Summarizing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Interpreting	Strongly Aligned	Weakly Aligned	Strongly Aligned	Strongly Aligned	Moderately Aligned
Analyzing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Extended Thinking	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Persuading	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Critiquing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Representing	Not Aligned	Not Aligned	Moderately Aligned	Weakly Aligned	Moderately Aligned
Median	4.00	4.00	4.00	4.00	4.00
Average	3.47	3.47	3.67	3.47	3.53
Overall Evaluation	Moderately Aligned	Moderately Aligned	Strongly Aligned	Moderately Aligned	Strongly Aligned
Science					
Identifying	Strongly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Classifying	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Comparing	Moderately Aligned	Moderately Aligned	Weakly Aligned	Strongly Aligned	Strongly Aligned
Inquiring	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Imperative	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Describing	Strongly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Defining	Strongly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned

Language Process	Grade 1	Grade 3	Grade 5	Grade 8	High School
Explaining	Weakly Aligned	Strongly Aligned	Weakly Aligned	Not Aligned	Not Aligned
Summarizing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Interpreting	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Analyzing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Extended Thinking	Strongly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Persuading	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Critiquing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Representing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Median	4.00	4.00	4.00	4.00	4.00
Average	3.80	3.67	3.73	3.80	3.80
Overall Evaluation	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned

Table 21. Difference in Percent Language Process Concurrence – Extended Standards to ELD Standards

Language Process	Grade 1	Grade 3	Grade 5	Grade 8	High Sch
English Language Arts					
Identifying	Not Aligned	Not Aligned	Not Aligned	Moderately Aligned	Moderately Aligned
Classifying	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Moderately Aligned
Comparing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Moderately Aligned
Inquiring	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Imperative	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Describing	Strongly Aligned	Strongly Aligned	Moderately Aligned	Strongly Aligned	Strongly Aligned
Defining	Strongly Aligned	Moderately Aligned	Weakly Aligned	Moderately Aligned	Strongly Aligned
Explaining	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned

Language Process	Grade 1	Grade 3	Grade 5	Grade 8	High Sch
Summarizing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Interpreting	Strongly Aligned	Moderately Aligned	Strongly Aligned	Not Aligned	Weakly Aligned
Analyzing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Extended Thinking	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Persuading	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Critiquing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Representing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Median	4.00	4.00	4.00	4.00	4.00
Average	3.80	3.67	3.60	3.67	3.67
Overall Evaluation	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Mathematics					
Identifying	Not Aligned	Strongly Aligned	Not Aligned	Not Aligned	Weakly Aligned
Classifying	Not Aligned	Strongly Aligned	Not Aligned	Strongly Aligned	Moderately Aligned
Comparing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Not Aligned	Moderately Aligned
Inquiring	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Imperative	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Describing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Not Aligned
Defining	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Explaining	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Summarizing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Interpreting	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Analyzing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Extended Thinking	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Persuading	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned

Language Process	Grade 1	Grade 3	Grade 5	Grade 8	High Sch
Critiquing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Representing	Strongly Aligned	Not Aligned	Not Aligned	Weakly Aligned	Weakly Aligned
Median	4.00	4.00	4.00	4.00	4.00
Average	3.60	3.80	3.40	3.47	3.40
Overall Evaluation	Strongly Aligned	Strongly Aligned	Moderately Aligned	Moderately Aligned	Moderately Aligned

Science

Identifying	Not Aligned	Not Aligned	Weakly Aligned	Weakly Aligned	Not Aligned
Classifying	Weakly Aligned	Strongly Aligned	Moderately Aligned	Strongly Aligned	Moderately Aligned
Comparing	Strongly Aligned	Weakly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Inquiring	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Imperative	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Describing	Moderately Aligned	Weakly Aligned	Weakly Aligned	Weakly Aligned	Strongly Aligned
Defining	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Explaining	Strongly Aligned	Strongly Aligned	Moderately Aligned	Not Aligned	Strongly Aligned
Summarizing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Interpreting	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Analyzing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Extended Thinking	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Persuading	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Critiquing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Representing	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned
Median	4.00	4.00	4.00	4.00	4.00
Average	3.60	3.53	3.60	3.53	3.73
Overall Evaluation	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned	Strongly Aligned

Language Complexity

The ELD Standards should have the same language complexity as that expected by the content standards. The reviewers investigated the language complexity of the standards and assigned a rating of low (1), medium (2), or high (3) to correspond with the Sato (2022) Framework's definition of language complexity. Some standards were not assigned a complexity rating ("None", 0) as they represented skills not considered language demands by the Framework (Appendix A). Each standard (content and ELD) was also assigned a language complexity level (i.e., 1-3).

Table 22 and Table 23 describe the language complexity of content standards for general education and extended standards, respectively (range and median). Table 24 describes the language complexity of the five ELD standards (range and median).

Table 22. Descriptive Summary of Language Complexity Ratings – General Education Standards

Grade	ELA			Math			Science		
	Min	Max	Median	Min	Max	Median	Min	Max	Median
1	0	3	1.5	0	2	0	3	3	3
3	0	3	2	0	3	0.5	3	3	3
5	0	3	2	0	2	1	2	3	3
8	0	3	2	0	3	1	3	3	3
High School	0	3	2	0	3	1	3	3	3

Table 23. Descriptive Summary of Language Complexity Ratings – Extended Standards

Grade	ELA			Math			Science		
	Min	Max	Median	Min	Max	Median	Min	Max	Median
1	0	2	1	0	1	0	3	3	3
3	0	3	1.5	0	1	0	3	3	3
5	0	3	2	0	1	0.5	2	3	2
8	0	3	2	0	2	0	1	3	3
High School	0	3	2	0	3	1	3	3	3

Table 24. Descriptive Summary of Language Complexity Ratings – ELD Standards

Grade	Standard 1 (SI)			Standard 2 (LA)			Standard 3 (MA)			Standard 4 (SC)			Standard 5 (SS)		
	Min	Max	Med	Min	Max	Med	Min	Max	Med	Min	Max	Med	Min	Max	Med
K	3	3	3	1	2	1	0	2	1	3	3	3	0	2	2
1				0	3	2	1	3	1	3	3	3	0	3	2
2-3				0	3	2	0	3	2	3	3	3	2	3	2
4-5	3	3	3	0	3	2	1	3	2	2	3	2	0	3	2
6-8				0	3	2	0	3	2	2	3	2	1	3	3
9-12				0	3	2	1	3	2	3	3	3	2	3	2.5

The complexity consistency of the ELD Standards to the content standards was evaluated (see Section 2 for criteria). Targets are established as the median of the content standards' language complexity ratings by grade level. The percentage of ELD Standards at or above the complexity of the content standard's target complexity was evaluated. The final panelist ratings established the percent of the objectives that were at or above the level of each objective's target.

The alignment evaluation of the ELD Standards' language complexity to the general education standards is reported in Table 25 and to the extended standards Table 26. Across all grades and content areas, there was overall strong alignment in terms of language complexity, with the exception of science grade 5 in the general education standards, which was weakly aligned.

Table 25. ELD Standards' Language Complexity Alignment to General Education Standards

Basis of Target (General Education Standards)	Target	Total ELD Objectives	Objectives At or Above Target	% Objectives At or Above Target	Evaluation
ELA Grade 1	1.5	35	23	65.7%	Strongly Aligned
ELA Grade 3	2	25	23	92.0%	Strongly Aligned
ELA Grade 5	2	34	32	94.1%	Strongly Aligned
ELA Grade 8	2	35	30	85.7%	Strongly Aligned
ELA HS	2	35	28	80.0%	Strongly Aligned
Math Grade 1	0	10	10	100.0%	Strongly Aligned
Math Grade 3	0.5	13	11	84.6%	Strongly Aligned
Math Grade 5	1	14	14	100.0%	Strongly Aligned
Math Grade 8	1	14	13	92.9%	Strongly Aligned
Math HS	1	14	14	100.0%	Strongly Aligned
Science Grade 1	1	20	20	100.0%	Strongly Aligned
Science Grade 3	3	13	13	100.0%	Strongly Aligned
Science Grade 5	3	14	5	35.7%	Weakly Aligned

Basis of Target (General Education Standards)	Target	Total ELD Objectives	Objectives At or Above Target	% Objectives At or Above Target	Evaluation
Science Grade 8	3	14	7	50.0%	Strongly Aligned
Science HS	3	14	14	100.0%	Strongly Aligned
All Grades K-3	2	20	20	100.0%	Strongly Aligned
All Grades 4-12	2	20	20	100.0%	Strongly Aligned

Table 26. ELD Standards' Language Complexity Alignment to Extended Standards

Basis of Target (Extended Standards)	Target	Total ELD Objectives	Objectives At or Above Target	% Objectives At or Above Target	Evaluation
ELA Grade 1	1	35	32	91.4%	Strongly Aligned
ELA Grade 3	1.5	25	23	92.0%	Strongly Aligned
ELA Grade 5	2	34	32	94.1%	Strongly Aligned
ELA Grade 8	2	35	30	85.7%	Strongly Aligned
ELA HS	2	35	28	80.0%	Strongly Aligned
Math Grade 1	0	10	10	100.0%	Strongly Aligned
Math Grade 3	0	13	13	100.0%	Strongly Aligned
Math Grade 5	0.5	14	14	100.0%	Strongly Aligned
Math Grade 8	0	14	14	100.0%	Strongly Aligned
Math HS	1	14	14	100.0%	Strongly Aligned
Science Grade 1	3	20	20	100.0%	Strongly Aligned
Science Grade 3	3	13	13	100.0%	Strongly Aligned
Science Grade 5	2	14	14	100.0%	Strongly Aligned
Science Grade 8	3	14	7	50.0%	Strongly Aligned
Science HS	3	14	14	100.0%	Strongly Aligned
All Grades K-3	2	20	20	100.0%	Strongly Aligned
All Grades 4-12	2	20	20	100.0%	Strongly Aligned

Overall Alignment

Overall alignment results were summarized for general education and extended (Table 27 and Table 28, respectively). For both bodies of content standards, all grades and content areas, there was strong or moderate alignment on all alignment evaluations, with the exception of grade 5 science in the general education standards, which was weakly aligned for language complexity.

Table 27. Overall Alignment – General Education Standards

Content Standards & Grade(s)	ELD Grade(s)	Language Process - Concurrence	Language Process – Concurrence Emphasis	Language Complexity
ELA Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 1	K, 1, K-3	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math Grade 3	K-3, 2-3	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 8	6-8, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Weakly Aligned
Science Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned

Table 28. Overall Alignment – Extended Standards

Content Standards & Grade(s)	ELD Grade(s)	Language Process - Concurrence	Language Process – Concurrence Emphasis	Language Complexity
ELA Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
ELA HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Math Grade 5	4-5, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math Grade 8	6-8, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Math HS EOC	9-12, 4-12	Strongly Aligned	Moderately Aligned	Strongly Aligned
Science Grade 1	K, 1, K-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 3	K-3, 2-3	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science Grade 5	4-5, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned

Content Standards & Grade(s)	ELD Grade(s)	Language Process - Concurrence	Language Process – Concurrence Emphasis	Language Complexity
Science Grade 8	6-8, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned
Science HS EOC	9-12, 4-12	Strongly Aligned	Strongly Aligned	Strongly Aligned

Final Evaluation

In addition to alignment results, workshop panelists completed a final evaluation (Appendix D). Results of the survey are presented in Table 29 and Table 30. Overall, panelists agreed or strongly agreed with survey items, including that they understood the purpose of the workshop and study, their tasks, and how to make their ratings. Open-ended feedback was generally positive. Many panelists thought that the Framework could be helpful to other educators.

Table 29. Final Evaluation Results (n = 34)

Survey Item	Strongly Agree	Agree	Disagree	Strongly Disagree
The workshop training and practice prepared me for the assigned tasks.	85.3%	14.7%	0.0%	0.0%
I understood how to make rating decisions.	76.5%	23.5%	0.0%	0.0%
I understood the purpose of having multiple rounds of rating.	85.3%	14.7%	0.0%	0.0%
I understood how to use the workshop website on Moodle and the linked materials.	100.0%	0.0%	0.0%	0.0%
I rated my content independently.	79.4%	20.6%	0.0%	0.0%
I understood the purpose of discussing where my panel disagreed.	97.1%	2.9%	0.0%	0.0%
I understood how to rate the Calibration set.	70.6%	29.4%	0.0%	0.0%
I understood how to rate the Validation set.	73.5%	26.5%	0.0%	0.0%
I believe that others listened to my opinions during our discussion of ratings.	97.1%	2.9%	0.0%	0.0%
I understood my role in the workshop.	85.3%	14.7%	0.0%	0.0%
I understood how to assign language complexity levels.	70.6%	29.4%	0.0%	0.0%
I understood how to use the language processes.	58.8%	41.2%	0.0%	0.0%
I understood how to use the rating tool.	76.5%	23.5%	0.0%	0.0%

Table 30. Panelist Open-Ended Feedback

Item	Response
• ***What did you appreciate the most about the workshop?***	I really enjoy talking with other teachers from around the state and see how things are in their schools.
	Learning how to rate the standards and group discussions with colleagues
	The time to discuss and have real conversations with other educators and leaders.
	Time to discuss ratings with others
	getting time to collaborate and discuss with peers
	Being able to connect with other teachers and professions. Having time to talk over the standards and how they connect to the language processes was invaluable.
	Explaining how to complete the task and allowing us to work together at first
	The collaboration with the group; having an initial rater with which to agree/disagree
	I really appreciated the open discussion and how we were allowed to speak our mind and give our opinion with it being taken into accountability. Those who were in the lead made sure that we understood what we were doing and offered assistance when needed. I felt that I was valued and that I was accomplishing my task that was given.
	The ability to see all types of standards at one time for many different types of students.
	The video from Dr. Sato and training on the Language Processes, the clarification given in order to determine the difference between cognitive processes and language processes. I appreciated the continuous support from the EdMetric team facilitators in explaining and reexplaining the tool and what exactly the task was.
	The conversation with my colleagues was really, really helpful. We all viewed the standards through different lenses and it was helpful to discuss what we were seeing and how we were reading the standards.
	I enjoyed learning about the process. It was eye-opening to see the standards this way.
	I really appreciated how organized everything was, the clear communication that was given (both before the study and during), and how approachable the facilitators were to answer questions and help us think through the process when needed.
	I felt it was very organized and planned out. The moodle site was easy to use. The rating process was easily understood the way it was presented.
	The workshop allowed me to view the biology standards through a different lens and think critically about the language process needed for science content. I have a deeper empathy for EL and EC students and the language skills needed for academic success. The training made me feel much more confident in rating the standards and the table discussion were meaningful.
	I appreciated the group discussions

Item	Response
• ***What did you appreciate the most about the workshop?***	I appreciate having a variety of knowledge and backgrounds on our panel to help make a well-round decision including different perspectives.
	The opportunity to collaborate with educators who brought a variety of experience, content area specialty, and perspectives to the study.
	The way everything was conducted. The professionalism of the panelists and staff was outstanding.
	The workshop in totality is very beneficial and rich in content to address how the ELD standards be connected to the core subjects
	I appreciated the structure of the groups because we were able to rely on the expertise of one another to justify a rating decision.
	I appreciated working with other educators as a panel rather than doing everything on my own. The discussions were helpful and necessary for understanding.
	It was such an informational session. I have experienced it first time and learn lot of things. I learned to differentiate between cognitive process and language process and also about the language complexity.
	I enjoyed working with the group of likeminded individuals who pushed me to look at the standards differently and the language that was needed to assess those standards.
	I appreciate the organization of the panels. We all came from different roles and backgrounds and were able to share our individual experiences to contribute to meaningful group discussion. I also felt the training was great- it gave us time to practice together and have samples modeled. When it came time for independent practice, I felt confident in my understanding and ability to use the framework and rating tools.
	Learning about language versus cognition.
	The opportunity to collaborate with other educators.
	The willingness to explain and help each of us to ensure our understanding in the process and if we were over/under thinking
	The logistic and support from the organizers was outstanding! The team I work in.
	Opportunity to discuss and develop a common understanding of the language processes
	I really appreciate the discussions that my team had about the standards and also the time available to reflect upon the complexity of the standards.
• ***What would you suggest to us to inform future workshops like this one?***	More unpacking of the curriculum along with the standards
	n/a
	More frontloading/work with the language processes prior to rating. Maybe a sort of some kind.
	I would have liked to have more time to talk with my table. We kept getting interrupted by a speaker trying to give more direction or redirection but we hadn't had time to really even get the task started. We wanted to be able to work for longer before being interrupted.
	everything was great

Item	Response
• ***What would you suggest to us to inform future workshops like this one?***	I needed a little more processing time in the morning when first learning about the expectations and tool
	I don't have any suggestions at this time. Keep doing what you are doing. It is appreciated and beneficial to education.
	I think that some of the training was lengthy and more practice versus training would be more beneficial.
	None, I feel the training provided and the work we did was beneficial.
	I think you all did a great job describing the language processes and complexity. I do think a few more examples initially would have helped answer some of the initial questions.
	I think this needs to be available to all K-12 teachers. It was very informative for everyone involved.
	The only suggestion I have is related to hotel stay. When workshops happen at the end of the month (before payday), let participants know to expect a 10% incidentals fee to be held on their credit card. (The cost of the room + 10% fee.)
	I would set it up the same. I think it was effective and the transition times were accurate. I loved that you had a backup plan for the technology.
	The only thing I can think of is having a location closer to the hotel because Raleigh traffic is pretty hectic. Other than that, everything was great!
	I was nervous before coming to the study because I really wasn't sure what to expect or whether or not I would enough knowledge to contribute to the conversations. After the workshop was explained once getting here, I felt a lot better. So maybe a little bit more of an explanation of what we were coming here to do would have been helpful.
	I was not entirely clear on how the work would be used to benefit students and shape instruction moving forward.
	Rating standards should go beyond meetings like this.
	More time /more days
	Keep the structure of groupings, give more information upfront about the structure of groupings (a little intimidating if you were selected to be in a group that didn't focus on your content) to assure prospective participants.
	You did an awesome job. The group sizes are good. No more than 4 allows everyone to have a voice. Maybe on the Calibration and Validation lists split them into 15 items each. Looking at 30 in one sitting was a bit much on the eyes.
	Everything went well. Just need a little more time to understand language process.
	I would have access to the unpacked document. I think looking at that to see what they are expected to do so that we can understand the language needed to be successful in that standard.
	I think it was very organized and delivered well. In the future I would continue to select and organize panels mindfully. As a participant, I would have appreciated a better explanation of the purpose of the study and what the implications would be. I also would have appreciated paper versions of the standards and unpacking documents.

Item	Response
• ***What would you suggest to us to inform future workshops like this one?***	Continuous discussion on how to use language process versus cognitive process.
	No, suggestions. It was well organized, easy to understand, and time efficient.
	The information was very relevant and the understanding of the standards was in-depth.
	Maybe to inform participants that they won't need a computer or any material for the study.
	Provide the unpacking with the standards. The unpacking provides a common understanding of the standard in order to select the language process most representative of what is need for a student to achieve proficiency.
	1. I think having a better understanding of the objective of the study before we began the facilitator training set would have been helpful. I think a pause in the video/facilitator discussion and allowing the participants to try assessing a standard without being influenced by an expert's grading would have been helpful. I also would have appreciated a built-in quiet time to read over the language processes. 2. Visually, it would have been helpful to have the linguistic processes printed single sided. I spent so much of the workshop flipping the form. 3. Clarification about the fact that some of the standards evaluate were not content specific. My group assumed that the ELD Standards were specific to the content until we researched the ELD standard. Perhaps having an indication in the form that some of the standard was not content specific. 4. I really think that the facilitators were conducive to the process and were great at clarifying questions. The facilitators also pushed us to offer our thoughts. The entire workshop was very organized and even had a backup plan when the original program did not work properly. 5. The format of the calibration, validation, and group discussion was extremely easy. The form made for a very efficient discussion. We could easily see areas that we agreed and disagreed. I really think that a form of this style could be applied to other education discussions and help with efficiency.
• ***Anything else?***	Also, I am glad we were able to end early today because I have a four-hour drive home so the original end of 5 pm would have been difficult. I know I am not the only one who live far away. North Carolina is a very wide state and Raleigh isn't really the middle.
	Will you be sharing with our counties who participated in this work?
	I really appreciate the ALD activity. As a classroom teacher of general education students that was definitely eye opening for me to look through.

Item	Response
• ***Anything else?***	Our group is willing to return for future studies! For future standards publications, including the ELD and Special Education standards may also be helpful to regular education teachers to help with differentiation.
	I have thoroughly enjoyed this alignment study, not only learning to look at the standards through a different frame of reference, but also getting to meet other educators and share ideas.
	The space and lay out of the room were fantastic. The facilitators were knowledgeable and helpful. Everyone was happy and pleasant. The materials from Mr. Phipps and Ms. Batt's were organized and informative.
	Thank you for allowing us to be a part of this unique opportunity. I feel this has helped me to grow as an educator. I appreciate how we have been treated as professionals.
	I enjoyed being part of this. Thank you.
	Thanks for your efforts.
	I enjoyed being a part of this study.
	Wonderful session. I thank you and appreciate that I got a chance to participate.
	Thank you for allowing me to participate in this learning and sharing activity. It was very engaging and fun.
	I believe teachers should be guided in how to use language versus cognitive for all our students.
	Having the access to the pacing guides and unpacking documents would be helpful at times.
	At a personal level, based on my experience with MLs, I will not suggest to mark "NO" on any of the ALD Language processes because the scorers some students get in EOGs not always represent the actual language proficiency level of the students. A student can be placed at a level 3 in EOG because he/she is a good guesser and not because he/she masters the language.

Section 6. Discussion

States are required to demonstrate that their English language proficiency standards are aligned with their academic content and achievement standards under ESEA (United States Department of Education, 2015, 2018). In the context of a comprehensive system of academic content standards and assessments, English language proficiency standards must provide students access and opportunity to learn the academic language requirements. The language demands, including language processes and language complexity, of the content areas are therefore the basis of the evaluation of a coherent education system that ensures all EL students can progress in the academic content areas.

The study evaluated the following claim:

- *The WIDA 2020 ELD Standards align with the academic English language expectations necessary to enable English Learner students to access and achieve the North Carolina Standard Course of Study.*

We asked, *To what degree do the WIDA 2020 ELD Standards provide English Learners access to the North Carolina grade-level content standards in terms of academic language processes and language complexity?*

To study student access, the standards-to-standards alignment examined the degree of language concurrence and language complexity demanded by the ELD Standards as compared with those demanded by the content area standards. Results support the claim that ELD Standards address the academic language EL students need to access and have opportunity to learn the North Carolina grade-level content standards, both general education and extended standards.

Overall, based on the criteria described in Section 2 (Table 7 and Table 8), both bodies of content standards (general and extended) across all grades and content areas demonstrated strong or moderate alignment on all alignment evaluations, with the one exception of grade 5 science in the general education standards, which was weakly aligned for language complexity.

The ELD Standards aligned with the North Carolina content standards in terms of language processes and language complexity, with some exceptions.

- For the general education standards (Table 27), there was overall strong or moderate alignment for all grades and content areas for language process alignment. All language processes evident in the content standards were present in the comparison ELD Standards (Table 18, Table 20, Table 27) at similar levels of complexity (Table 25), with specific exceptions:
    - *Representing* (math grades 1, 3, 5, 8 and high school)
    - *Identifying* (math grades 5, 8, and high school)
    - *Explaining* (math grade 3 and science grade 8 and high school)
    - *Comparing* (math grade 1)
    - *Imperative* (science high school)

- For the extended standards (Table 28), there was overall strong or moderate alignment for all grades and content areas. All language processes evident in the content standards were present in the comparison ELD Standards (Table 19, Table 21, Table 28) at similar language complexity (Table 26), and, with specific exceptions:
    - *Representing* (math grades 3, 5 and 8 and science high school)
    - *Identifying* (ELA grades 1, 3, 5; math grades 1, 5 and 8; science grades 1 and 3)
    - *Classifying* (math grades 1 and 5)
    - *Interpreting* (ELA grade 8)
    - *Comparing* (math grade 8)
    - *Describing* (math high school)
    - *Explaining* (science grade 8)

Conclusion

The study results provide strong evidence to support the claim that the WIDA 2020 ELD Standards are aligned to the North Caroline grade-level content standards, both general education and extended for sampled grades. Overall, the ELD Standards provide ELs the expectations and opportunity to learn grade-level academic content and meet proficiency expectations on the state summative assessment in terms of language demands.

Recommendations

The study provides strong evidence in support of the adoption and implementation of the WIDA standards in North Carolina. Exceptions to the overall alignment evaluation should be considered by both the North Carolina DPI and the ELD standards' publisher, WIDA.

1. We recommend that DPI communicate the importance of language demands in teaching content standards across the education agencies. The state could mitigate the few areas of misalignment reported here by encouraging EL coordinators and administrators to strengthen teachers' awareness of language demands and to encourage emphasizing those language processes and complexity levels that showed weaker alignment in the study.
2. We recommend that DPI communicate the results of the study to WIDA to inform the interpretation and use of the WIDA standards as formative feedback.

Section 7. Validity Evidence

Evidence from this alignment study supports the validity argument for the use of the WIDA 2020 ELD Standards as a body of standards to support ELs to garner the language proficiency to succeed in the content areas. The evaluation of these bodies of standard relate to portions of the *Standards for Educational and Psychological Testing* (AERA, NCME, & APA, 2014), with the assumption that assessment constructs are defined and assessments aligned to standards.

Specifically, this study provides evidence to support Standard 1.11 which states:

> When rationale for test score interpretation for a given use rests in part on the appropriateness of test content, the procedures followed in specifying and generating test content should be described and justified with reference to… the construct the test is intended to measure or the domain it is intended to represent.

Evidence for Standard 1.11 should therefore demonstrate adequate representation of the construct, specifically alignment between the ELD Standards and expected language demands of the content standards in terms of language process concurrence and alignment of language complexity. Results of this study support the argument that the education systems in North Carolina are aligned in terms of EL curriculum, instruction, and assessment.

In terms of procedural evidence, the study was designed and implemented to include relevant experts external to the test program itself. Standard 4.6 states:

> When appropriate to documenting the validity of test score interpretations for intended uses, relevant experts external to the testing program should review the test specifications to evaluate their appropriateness for intended uses of the test scores… The purpose of the review, the process by which the review is conducted, and the results of the review should be documented. The qualifications, relevant experiences, and demographic characteristics of the expert judges should also be documented.

The study purpose, process, and results as well as the qualifications, experiences, and demographic characteristics of all expert reviewers are captured in this technical report (see Section 3).

Finally, Standard 12.8 states:

> When test results contribute substantially to decisions about student promotion or graduation, evidence should be provided that students have had an opportunity to learn the content and skills measured by the test.

This alignment study provides evidence to support the claim that the ELD Standards provide the necessary expectations to support ELs opportunity to learn in the content standards (both extended and general education. However, an analysis of alignment ratings did identify some

areas of weakness across grades and alignment criteria. These areas are discussed with recommendations in Section 6.

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Appendix A. Sato (2022) Framework and Worked Examples

The study will use the *Language Processes & Language Complexity Framework: Academic English Language* (Sato, 2022), with permission from the author. The following excerpts and Table A1 and Table A2 quoted here will be used by raters to code all bodies of standards.

Table A1: LANGUAGE PROCESSES

Notes:

Column 1 (far left) is the language process category.

Column 2 presents the related subcategory/subcategories of the language process. These subcategories exist to reflect the range of ways a language process (Column 1) may manifest within and across academic content areas.

Column 3 presents the operational definition of the language processes.

Column 4 presents a way that language processes could be coded when evaluating content. This example is coding content at the highest language process level (i.e., the language process category listed in Column 1).

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
Identifying	**Identification**	a word or phrase to name an object, action, event, idea, fact, problem, need, or process.	score 0-1 (at highest level of "identifying" --column 1 of this table) 0=absent/no 1=present/yes
	Labeling	a word or phrase to name an object, action, event, idea, feeling (can be concrete or abstract).	
	Enumeration	words or phrases to name distinct objects, actions, events, or ideas in a series, set, or in steps.	
Classifying	**Classification**	words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs.	score 0-1
	Organization	words, phrases, or sentences to express relationships between/among objects, actions, events, or ideas, or the structure or arrangement of information. Discourse markers include coordinating conjunctions such as *and*, *but*, *yet*, *or*.	

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
	Sequence	words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). Discourse markers include adverbials such as *first*, *next*, *then*, *finally*.	
Comparing	**Comparison/Contrast**	words, phrases, or sentences to express similarities and/or differences, or to distinguish between two or more objects, actions, events, or ideas. Discourse markers include coordinating conjunctions *and*, *but*, *yet*, *or*, and adverbials such as *similarly*, *likewise*, *in contrast*, *instead*, *despite this*.	score 0-1
Inquiring	**Inquiry**	words, phrases, or sentences to solicit information (e.g., *yes-no* questions, *wh*-questions, statements used as questions).	score 0-1
Imperative	**Command** **Direct** **Instruct**	words, phrases, or sentences that give a direct order, provide instruction, communicate a request, command, or demand, or offer an invitation or advice. The subject is often implied.	score 0-1
Describing	**Description**	word, phrase, or sentence to express or observe the attributes or properties of an object, action, event, idea, or solution.	score 0-1
Defining	**Definition**	word, phrase, or sentence to express the meaning of a given word, phrase, or expression.	score 0-1
Explaining	**Causality**	phrases or sentences to express causal relationships, causes and effects related to one or more actions or events. Discourse markers include coordinating conjunctions *so* and	score 0-1

Linguistic Features: Language Processes		*Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:*	For coding
		because, and adverbials such as *therefore*, *as a result*, *thus.*	
	Explanation	phrases or sentences to express the rationale, reasons, or relationships related to one or more actions, events, ideas, or processes that are non-causal. Discourse markers include coordinating conjunctions *for*, and adverbials such as *for that reason*.	
Summarizing	**Retelling**	phrases or sentences to relate or repeat information. Discourse markers include coordinating conjunctions such as *and*, *but*, and adverbials such as *first*, *next*, *then*, *finally*.	score 0-1
	Summarization / Synthesis	phrases or sentences to express important facts or ideas and relevant details about one or more objects, actions, events, ideas, or processes. Discourse structures include: beginning with an introductory sentence that specifies purpose or topic.	
Interpreting	**Interpretation**	phrases, sentences, or symbols to express understanding of the intended or alternate meaning of information.	score 0-1
Analyzing	**Analysis/ Evaluation**	phrases or sentences to indicate parts of a whole and/or the relationship between/among parts of an action, event, idea, or process. Relationship verbs such as *contain*, *entail*, *consist of*, partitives such as *a part of*, *a segment of*, and quantifiers such as *some*, *a good number of*, *almost all*, *a few*, *hardly any* often are used. phrases or sentences to express a judgment about the meaning, importance, or significance of an action, event, idea, or text.	score 0-1
Extended Thinking	**Generalization**	phrases or sentences to express an opinion, principle, trend, or conclusion that is based on facts, statistics, or other information, and/or to extend that opinion/principle/etc. to other relevant situations/contexts/etc.	score 0-1

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
	Inference	words, phrases, or sentences to express understanding of implied/implicit based on available information. Discourse markers include inferential logical connectors such as *although*, *while*, *thus*, *therefore*.	
	Prediction	words, phrases, or sentences to express an idea or notion about a future action or event based on available information. Discourse markers include adverbials such as *maybe*, *perhaps*, *obviously*, *evidently*.	
	Hypothesis	phrases or sentences to express an idea/expectation or possible outcome based on available information. Discourse markers include adverbials such as *generally*, *typically*, *obviously*, *evidently*.	
Persuading	**Argumentation**	phrases or sentences to present a point of view with the intent of communicating or supporting a particular position or conviction. Discourse structures include expressions such as *in my opinion*, *it seems to me*, and adverbials such as *since*, *because*, *although*, *however*.	score 0-1
	Persuasion	phrases or sentences to present ideas, opinions, and/or principles with the intent of creating agreement around or convincing others of a position or conviction. Discourse markers include expressions such as *in my opinion*, *it seems to me*, and adverbials such as *since*, *because*, *although*, *however*.	
	Negotiation	phrases or sentences to engage in a discussion with the purpose of creating mutual agreement from two or more different points of view.	
Critiquing	**Critique**	phrases or sentences to express a focused review or analysis of an object, action, event, idea, or text.	score 0-1
Representing	**Symbolization & Representation**	symbols, numerals, and letters, to represent meaning within a conventional context (e.g., +, -, CO_2, >, Δ, π, cos, $y=3x+4$, $c_2=a_2+b_2$, $h/2(b_1+b_2)$, *cat* vs. cat).	score 0-1

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
None	**No Academic Language Function**	Item or standard does not contain *any* academic language functions; may contain linguistic skills (e.g., phonemic awareness, syllabication).	0=there is academic language function 1=there is NO academic language function

Based on: Sato, Lagunoff, Worth, Bailey, & Butler, 2005; Sato, Lagunoff, & Worth, 2008; Sato & Lagunoff, 2010; Kao & Sato, 2020

Table A2: LANGUAGE COMPLEXITY

This language complexity rubric can be applied to stimuli, prompts/questions, and responses/response options.

This is intended to guide/inform a *holistic* rating of language complexity. Not intended to be used as a checklist.

1 – Lower Complexity	2 – Medium Complexity	3 – Higher Complexity
Common, high-frequency words and phrases.	Some less common words and phrases, some technical words.	Specialized or technical words and phrases or context-specific words and phrases.
Words with mostly familiar construction (e.g., 's for possessive; s and es for plural).	Words with some less familiar/irregular construction.	Words with use of irregular constructions (e.g., vowel changes).
No variation of tense.	Little to no variation in tense.	Variation in tense.
Semantically simple words and phrases; no use of figurative language, and/or idioms.	Some use of semantically complex words and phrases; limited use of figurative language and/or idioms.	Semantically complex words and phrases (e.g., multiple-meaning words); use of figurative language, and/or idioms.
Short, simple sentences with limited modifying words or phrases, including simple *wh-* and *yes/no* questions.	Longer, mostly simple sentences, some compound or complex sentences. Some modifying words or phrases, including longer, mostly simple *wh-* and *yes/no* questions.	Long, compound and complex sentences; longer sentences with modifying words, phrases, and clauses, multiple subordinate clauses, multiple modifiers, including complex *wh-* and *yes/no* question constructions and tag questions.
Length ranges from a word to phrases or simple sentences. Short texts, or longer texts chunked into short sections (words, phrases, single sentences, very short paragraphs)	Length ranges from a word to phrases or one or more sentences. Longer texts with some chunking, longer series of sentences, longer paragraphs.	Length ranges from a word to phrases or one or more sentences to paragraphs to a passage. Long texts (long lists of words/phrases, a series of sentences, long paragraphs, multiple-paragraph texts).
No/little variation in words and/or phrases in sentences/paragraphs; consistent use of language.	Some variation in words and/or phrases in sentences/paragraphs.	High variation in words and/or phrases in sentences/paragraphs.

1 – Lower Complexity	2 – Medium Complexity	3 – Higher Complexity
Repetition of key words/phrases/sentences *reinforces* information.	Repetition of key words/phrases/sentences *introduces new* or *extends* information.	Repetition of key words/phrases/sentences *introduces new* or *extends* information and/or abstract ideas.
No/little abstraction; language reflects more literal/concrete information.	Some abstraction; illustrative language is used; language is used to define/explain abstract information.	Some abstraction; language *may or may not* be used to define/explain abstract information; illustrative language *may or may not* be used; technical words/phrases are used.
Little to no use of visual aids and graphics; graphics that are used for decoration or to increase motivation but are non-essential to key points; relevant text features used to highlight main points.	Visual aids, graphics and/or relevant text features use to highlight main points or reinforce critical information/details.	Visual aids, graphics and/or relevant text features *synthesizes* critical information/details.
Language is organized/structured.	Language is mostly organized/structured but may contain some ill-structured text.	Language *may or may not* be organized/structured.
Familiar and simple text features (e.g., bold face, underline, headings).	Mostly familiar text features (e.g., bulleted lists, text boxes, glossary, index, sidebars).	Some less familiar text features (e.g., pronunciation keys, maps, overlays).

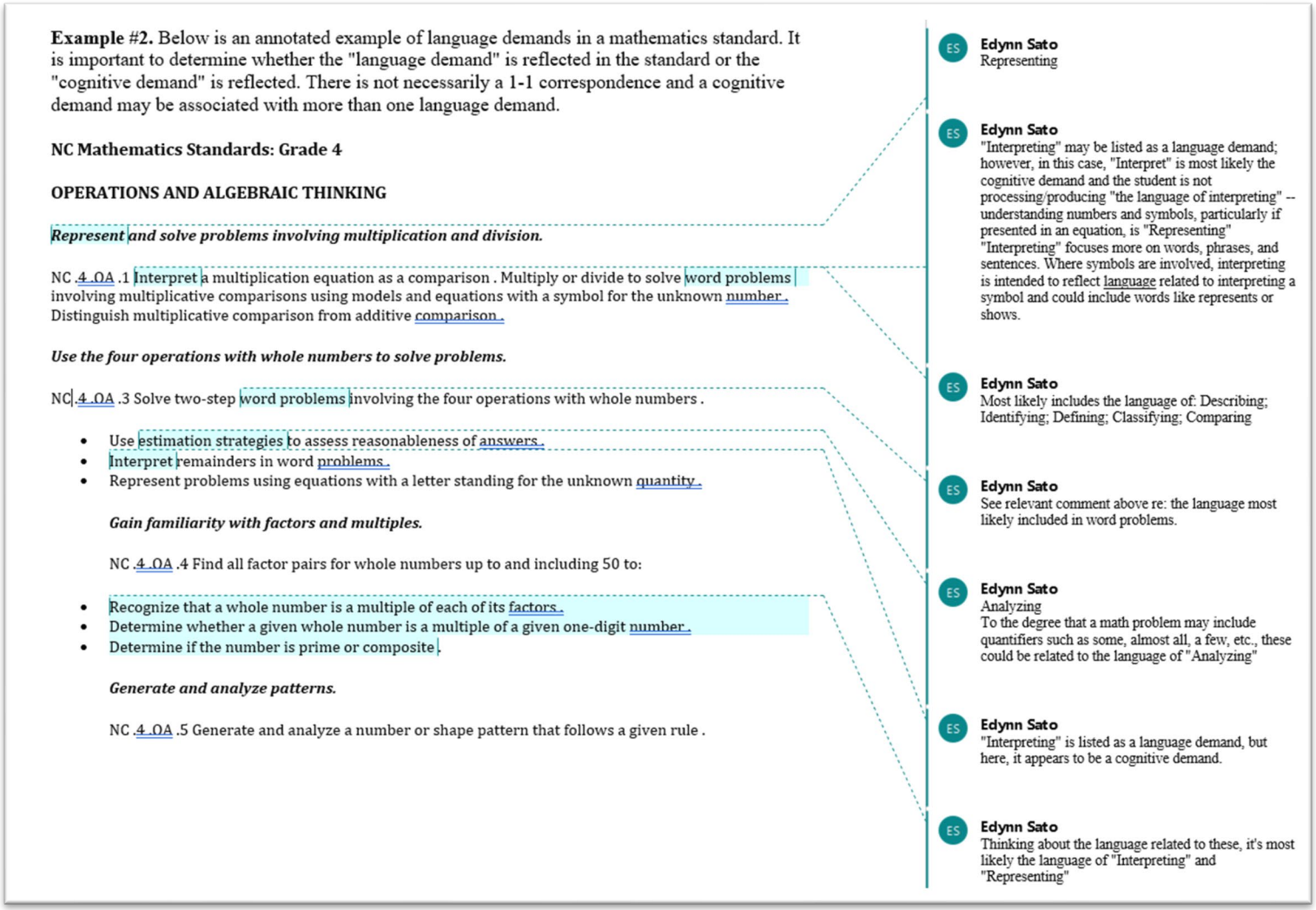
Example #1. Question: Distinguish between Interpretive and Expressive when appropriate?

Note: This was done really quickly for illustrative purposes, so some language demands may have been unintentionally omitted.

Grade band	Language Demands in WIDA Standard	Language Demands in North Carolina Standards	
WIDA 4-5 **NC Gr. 4**	**WIDA ELD Standard 2:** *="Interpretive" (may also be "Expressive" but more explicitly interpretive) Narrate • Interpreting* • Identifying* • Analyzing* • Defining* • Describing • Classifying Inform • Interpreting* • Identifying* • Analyzing* • Defining • Describing • Comparing • Classifying • Extended thinking Argue	**Mathematical Practice:** ("Interpretive") *1. Make sense of problems and persevere in solving them .* *2 . Reason abstractly and quantitatively.* These mathematical practices would most likely involve the language of: • Interpreting • Identifying • Analyzing • Describing • Comparing • Classifying • Extended thinking • Representing	**Mathematical Practice:** ("Expressive") *3 . Construct viable arguments and critique the reasoning of others.* *4 . Model with mathematics.* *5 . Use appropriate tools strategically.* *6 . Attend to precision.* *7 . Look for and make use of structure.* *8 . Look for and express regularity in repeated reasoning.* These mathematical practices would most likely involve the language of: • Identifying • Describing • Defining • Comparing • Classifying • Explaining • Extended thinking • Representing

Grade band	Language Demands in WIDA Standard	Language Demands in North Carolina Standards	
	• Interpreting* • Identifying* • Analyzing* • Evaluating* • Describing • Explaining • Summarizing • Imperative Explain • Interpreting* • Identifying* • Analyzing* • Evaluating* • Describing • Explaining • Classifying • Comparing • Representing	**Operations and Algebraic Thinking** (see below for more explanation)**:** These standards would most likely involve the language of: • Representing • Identifying • Describing • Defining • Comparing • Classifying • Analyzing	

Example #2. Below is an annotated example of language demands in a mathematics standard. It is important to determine whether the "language demand" is reflected in the standard or the "cognitive demand" is reflected. There is not necessarily a 1-1 correspondence and a cognitive demand may be associated with more than one language demand.



Design Document

Study of the Alignment of the North Carolina Content Standards and Extended Standards (K-8 and High School) with the WIDA 2020 English Language Development Standards

November 4, 2022

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Section 1. Overview

The purpose of this study is to assist the North Carolina Department of Public Instruction (NCDPI) with an alignment study to satisfy the United States Department of Education's (USED) request to provide evidence that the WIDA 2020 English Language Development (ELD) Standards, which have been adopted by North Carolina, meet the mandate of the Every Student Succeeds Act (ESSA) of 2015 that, "Each state...shall demonstrate that the State has adopted English language proficiency standards that...(ii) address the different proficiency levels of English learners; and (iii) are aligned with the challenging State academic standards" (U.S. Department of Education, 2015, p. 24). The ELD standards should reflect the English language knowledge and skills needed for English learners (ELs) to access and achieve grade-level academic content as defined by the State's academic content standards. This external, independent alignment study will address standards in each grade-level/grade-band (K, Grade 1, Grade band 2-3, Grade band 4-5, Grade band 6-8, Grade band 9-12) in English/language arts (ELA), mathematics, and science.

The broadest intent of this study is to provide an independent evaluation of the degree of alignment between two sets of standards – the WIDA 2020 ELD Standards and the State's academic content standards. This alignment, also referred to as "correspondence," relates the English language development standards to the high-leverage language in the academic content standards, that is, the particular language demands necessary to access grade-level content and attain academic content proficiency. Figure 1 illustrates this correspondence.

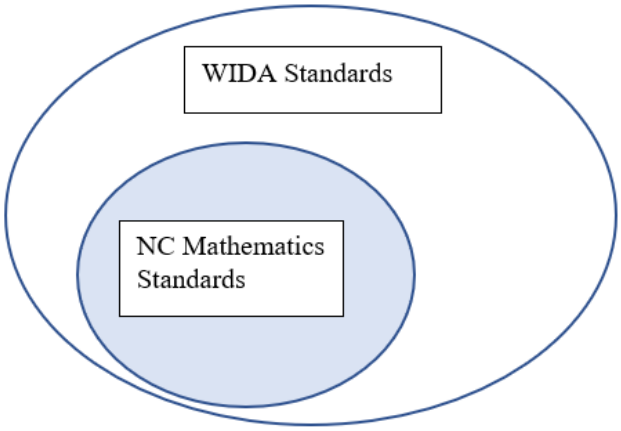

Figure 1. Standards Correspondence Illustration

The results of the study will contribute to the validity evidence gathered by NCDPI to demonstrate the degree of alignment between the standards for state and federal accountability purposes. This study will provide evidence related to how the language skills in the WIDA ELD standard are sufficient to enable EL students to access the full range of language expectation in the North Carolina Standard Course of Study and North Carolina Extended Content Standards (the North Carolina content

standards). This study will include a full technical report, written and organized in a manner intended to maximize its usefulness in the development of the state's peer review submission.

Literature Overview

The coherence of an assessment system includes the evaluation of how well the content standards, which drive grade-level instruction and assessment, align to EL students' opportunity to gain academic language proficiency and learn in academic English. Consistent with the *Standards for Educational and Psychological Testing* (AERA/APA/NCME, 2014), standards-to-standards alignment evaluation should provide evidence of a degree of correspondence between the bodies of standards measured across the state's assessments.

Content and ELD standards are developed independently but are interdependent when it comes to the academic achievement of EL students. Therefore, research questions to guide an evaluation of standards correspondence, or alignment, rely on (a) an understanding of the target student population served and their academic needs, identification policies, and characteristics of their language acquisition, and (b) defensible comparison strategies and methodologies.

English learner students are characterized by the fact that their first language is not English and that they are concurrently building English proficiency while learning in the content areas. McKay (2006) defined *language learners* as "those who are learning a foreign or second language and who are doing so during the first six or seven years of formal schooling" (p. 1), and Bialystok (2001, p. 5) defined *bilingual learners* are those who "learn two (or more) languages to some level of proficiency." State policies use survey and assessment strategies to identify students who should be classified as ELs for instructional purposes. It is important that students receive adequate support in their ELD in order to achieve in the content areas at grade level.

In support of this aim, studies of the demands of language proficiency and content assessments have identified the need for comparison strategies that meaningfully relate the bodies of their respective standards. For example, Stephens and colleagues (2000) conducted a content review of language and content assessments and found a limited relationship between the language tested on the Language Assessment Scales (LAS, Duncan and DeAvila, 2000) and the Iowa Test of Basic Skills (ITBS). Inspection of the syntactic complexity, sentence structures, and vocabulary supported a conclusion that academic discourse requires more sophisticated use of language than the LAS assessed.

Therefore, researchers from fields of linguistics, education, and measurement have focused on codifying important elements of academic English language, including the lexical, grammatical, and discourse features (Bailey, 2007) as well as cognitive, sociocultural and psychological aspects (Scarcella, 2003; Heritage, Silva & Pierce, 2007). Some approaches have focused on the degree to which the academic language demands in the ELD standards are "linked" with the demands evident in state content standards (Bailey, Butler, and Sato, 2007; Murphy, Bailey, and Butler, 2006; Sato, Lagunoff, Worth, Bailey, and Butler, 2005). Cook (2005, 2006, 2007) also

defined a framework that uses the concepts of key practice language functions (KPLF) and linguistic difficulty levels (LDL) to code language complexity (Johnson, 2005). Schleppegrell (2004), coming from a functional linguistic perspective, found that the complexity of academic language shapes the way students engage with academic content (e.g., Loban's (1986) study of syntactic complexity progressing from speech to writing), and "studies that measure language complexity have an impact not only on the research but also on the practice of education" (p.14).

In these various approaches, common themes include the need for codifying language functions or processes (e.g., identifying, summarizing). In addition, they emphasize the need for a useful way to describe language complexity that incorporates vocabulary and sentence structure as well as organization and visual presentation.

Based on earlier work (Sato, Lagunoff, Worth, Bailey, & Butler, 2005; Sato, Lagunoff, & Worth, 2008; Sato & Lagunoff, 2010), Sato (2022) developed a taxonomy that focuses on language processes and language complexity to represent the key academic language demands expected in American classrooms. Based on research, the resulting *Language Processes and Language Complexity Framework* (Framework) was also reviewed and revised by EL teachers who have pedagogical content knowledge for teaching ELs. An advantage of the Sato (2022) Framework is that it provides a common coding system that can be used on any type of educational material, from instructional materials and content standards to assessment items, scoring rubrics, and achievement level descriptors.

Analytic approaches after coding and the review of standards' content are also important for standards-to-standards correspondence and alignment studies. Webb and Christopherson (2015) modified the Webb (1997, 1999) alignment methodology. Using the KPLF (Cook, 2005, 2006, 2007), the authors evaluate language and content standards using the traditional concepts of categorical concurrence, depth of knowledge, range-of-knowledge correspondence, and balance of representation.

While traditional Webb analytics have a meaningful place in the comparison of standards, characteristics of the EL student population and the intended relationship between ELD and content standards drives toward the need for greater specificity related to language process and language complexity in order to produce actionable results. First, it is important to establish the content standards at grade level as the point of comparison for ELD standards that *precede or are concurrent with* the grade level. Second, it is important to determine the specific language processes that are needed for instruction and practice in order to address instructional plans. Finally, definitions of complexity in terms of language demands are not synonymous with DOK. Language complexity includes lexical, grammatical, and structural elements not captured in cognitive complexity definitions. Language complexity warrants specific evaluation.

Therefore, the study approach described here reflects the Sato (2020) Framework as the content analysis tool used across all bodies of standards, including ALDs. With a common coding applied, analytics allow for comparisons of content standards to ELD standards at or below the current grade level. Results can therefore show the specific language processes that correspond between the content standards, which set the overall expectation, and the ELD standards which should support learning in

the content areas. The Framework also operationalizes the concept of language complexity with a comprehensive, language-based approach.

Study Claim

States are required to demonstrate the alignment of their English language proficiency standards with their academic content and achievement standards under ESSA (United States Department of Education, 2017). In the context of a comprehensive system of academic content standards and assessments, English language proficiency standards must be aligned with the academic language requirements (i.e., linguistic demands, language complexity) of the content areas to provide a coherent education system that ensures all students can progress in the academic content areas. From this, the following claim may be articulated:

- *WIDA 2020 ELD standards align with the academic English language expectations necessary to enable EL students to access and achieve the North Carolina Standard Course of Study.*

The study will evaluate this claim with two important components: *access* to the North Carolina content standards and *achievement* of North Carolina content standards.

Document Purpose

This document describes the design of the alignment study of the WIDA 2020 ELD standards to the North Carolina content standards. The purpose of this design document is to guide the organization and implementation of the study. The design document outlines the rationale for the study methodology and provides implementation details and recommendations. EdMetric will lead the workshop to collect data for the study. Section 1 provides an overview of the study plan. Section 2 summarizes the planned methodology for the study. Section 3 provides information on the roles and responsibilities of those who will participate in the study as well as information regarding panelists. Section 4 describes the planned workshop. Section 5 overviews the technical report.

Section 2. Methodology Overview

The study will examine the alignment of the WIDA 2020 ELD standards with the North Carolina content standards and achievement level descriptors. The results from the study will evaluate the degree to which the WIDA standards prepare students to prepare EL students to access the North Carolina content standards.

To study student *access*, the standards-to-standards alignment will examine the degree of concurrence of language demands reflected in the WIDA 2020 ELD standards and the content area standards. This will provide information about the degree to which ELD standards address English language expectations that will enable EL students to access North Carolina content standards.

To study student *achievement*, we will evaluate the language demands in the WIDA 2020 ELD standards and the content area achievement level descriptors (ALDs) by expert review. The ALDs will provide information about the degree to which ELD standards address the language demands EL students need to meet the achievement level expectations.

Language Demand Framework

In order to identify and evaluate language demands in the standards and ALDs, we will use the *Language Processes and Language Complexity Framework* (Sato, 2022) based on initial coding from an implemented alignment study (Murphy, Bailey, Butler, & Sato, 2006). The Framework is a theory- and research-based framework created to inform the design, development, and evaluation of English language and English language proficiency in various materials.

The Framework allows for the evaluation of the degree to which the academic English language demands in the ELD standards align with the language demands reflected in the state content standards for ELA, mathematics, and science, as well as the ALDs. The Framework, which is based on years of application and research, can be applied across ELD and content area materials, and provides a systematic, explicit, and consistent way to identify and evaluate language demands.

The Framework (Appendix A) identifies and describes 15 language processes that hold equal weight: Identifying, Classifying, Comparing, Inquiring, Imperative, Describing, Defining, Explaining, Summarizing, Interpreting, Analyzing, Extended Thinking, Persuading, Critiquing, and Representing. In addition, the Framework defines and describes three levels of language complexity (low, medium, high).

Alignment Study Phases

The alignment study will be conducted in phases. The phases are intended to achieve two primary goals. First, as an independent alignment study, we will incorporate stages of review from EdMetric content experts (pre-workshop) and North Carolina educators (workshop) to maximize professional input from qualified representatives of linguistic, content area, and classroom expertise. Second, we will ensure

that the phased process manages the cognitive load to reviewers for effective decision making and reduction of overwhelm.

- **Pre-Work (Phase 1) –** As described in Section 3 below, EdMetric will convene a group of language and subject matter experts to evaluate the language demands in the WIDA 2020 ELD standards[1] and the North Carolina content standards (general and extended) and achievement level descriptors using the Framework (Sato, 2022). All experts have deep experience in alignment work, as well as in their specific content areas. Dr. Deborah Busch will serve as our language expert and will work with the content experts to develop a common understanding of the Framework and to ensure its consistent application. The experts will then couple this understanding with their deep expertise of the content to evaluate (code) the language demands in each set of standards.

- **Educator Workshop (Phase 2) –** EdMetric will conduct an in-person alignment workshop involving North Carolina educators. The involvement of North Carolina educators is critical to this study because of their robust understanding of the state's standards and students — they have both content expertise and experience implementing the standards in their teaching practice. Participants will review and verify portions of the Phase 1 work. In particular, educators will review the language demands associated with the ELD and content standards and with the achievement level descriptors.

- **Analyses and Reporting (Phase 3) –** During the third phase, EdMetric will analyze the alignment data for interrater reliability and the degree to which the WIDA 2020 ELD standards align with the language demands of the North Carolina content standards and achievement level descriptors. In addition, EdMetric will prepare a detailed technical report of the workshop and the study results.

Content Standards

The North Carolina Standard Course of Study and the WIDA 2020 ELD Standards will be reviewed in the study. For the purposes of this study, all ELA, math, and science content standards in grades K-12 will be reviewed.

A common nomenclature will be applied to describe the levels of the standards to define the unit of analysis (Figure 2): "objectives" will be defined as the smallest unit of the standard. In cases where standards are stated in sub-bullets (e.g., "a.", "b.", etc.), the sub-bullet will be considered an objective.

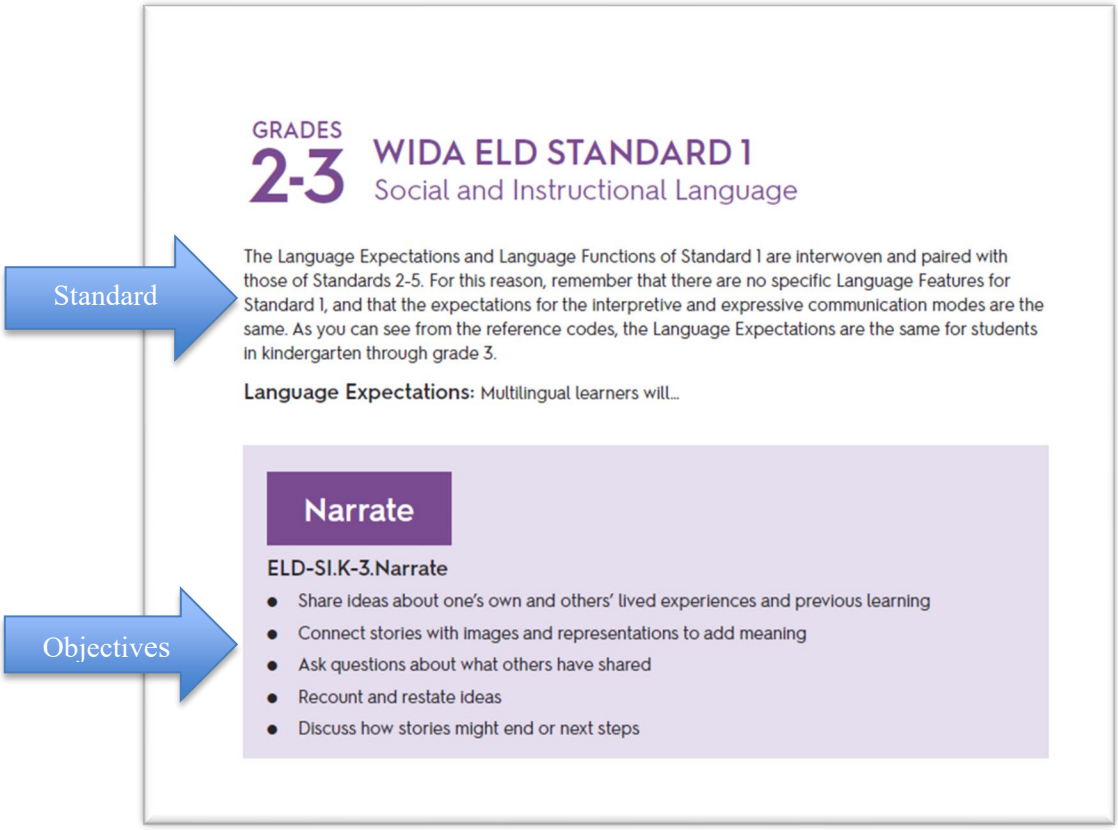

Figure 2. Outtake of the WIDA 2020 English Language Development Standards – Grades 2-3, Standard 1

Figure 3 illustrates the application of the Framework using an example from the content standards (Sato, personal communication, 2022).

NC.4.OA Operations and Algebraic Thinking Represent and solve problems involving multiplication and division. NC.4.OA.1 Interpret a multiplication equation as a comparison. Multiply or divide to solve word problems involving multiplicative comparisons using models and equations with a symbol for the unknown number. Distinguish multiplicative comparison from additive comparison. ▪ Multiplication facts to 12: find the missing factor (4-D.5) ▪ Compare numbers using multiplication (4-D.10) ▪ Compare numbers using multiplication: word problems (4-D.11) ▪ Comparison word problems: addition or multiplication? (4-F.3)	Notes: It is important to first draw a distinction between cognitive demands and language demands. Represent and solve are cognitive demands. Interpret is a cognitive demand. Word problems signals language demands are involved. The language of comparisons will be used in these word problems, as well models, equations, and symbols. This suggests the following are most likely the primary language demands: Comparing; Representing There may be other, or "secondary" language demands in word problems such as: Identifying (e.g., labeling); Classifying (e.g., classification, sequence); Describing Multiplication facts and comparing numbers using multiplication typically would involve numbers and symbols (when not presented as a word problem). Therefore, Representing is the language demand. It also is important to note that when such information is presented to a student (in instruction or on a test), there are usually directions and questions. Therefore, Inquiring and Imperative are also language demands; however, these may be consider more "global" and not "standard-specific."

Figure 3. Example of the Application of the Framework to Content Standard NC.4.OA

Figure 4 illustrates the application of the Framework using an example from the 2020 WIDA ELD standards.

WIDA Can Do Descriptors **Grade band 4-5** **KEY USE OF RECOUNT** **READING:**	Note: A decision needs to be made about focus -- is the intent to evaluate the language demand for each level 1-6, or focus only on the levels that would reflect "grade-level proficiency" for each domain. Another option is to focus on the "Recount" level and list language demands across the levels 1-6, rolling up the information to the "Recount" level.
Level 1: Process recounts by • Identifying words in context during oral reading of illustrated text on familiar topics or experiences • Highlighting previewed or familiar phrases	Typically, a word is used to name or label an object, idea, fact, etc. Therefore, the language demand is likely Identifying
Level 2: Process recounts by • Classifying time- related language in text as present or past	The language involved is most likely: Classifying. That is, words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs and/or words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). There may be other, or "secondary" language demands in word problems such as: Identifying (e.g., labeling); Describing; Representing
• Identifying the "who," "what," "where," and "when" in narrative text with a partner	The language involved is most likely: Describing. That is, words, phrases, or sentences to express or observe the attributes or properties of an object, action, event, idea, or solution. There may be other, or "secondary" language demands in word problems such as: Classifying (e.g., sequence); Comparing; Defining; Explaining; Representing

Figure 4. Example of the Application of the Framework to WIDA Can Do Descriptors 4-5

Content Expert Review

EdMetric content experts will conduct an initial alignment evaluation of the language demands of the WIDA ELD standards, the North Carolina content standards, and ALDs. Experts will be trained on the Sato (2022) Framework (Appendix A) to ensure understanding and consistency of application. These experts will use the Framework to evaluate each of the WIDA ELD standards, North Carolina content standards, and the ALDs. The language demands reflected in each of the standards and ALDs will be identified and coded. The level or range of language complexity reflected in each standard and ALD also will be evaluated and coded.

- *Access to North Carolina Content Standards.* It is expected that the language demands found in the WIDA 2020 ELD standards will prepare North Carolina students to access the language demands found in the North Carolina content standards.

- *Achievement of the North Carolina Content Standards.* It is expected that the language demands found at different achievement levels will vary and will be supported by the demands found in the WIDA 2020 ELD standards.

Evaluation Criteria

Alignment will be examined using two lenses: the concurrence of language processes and alignment of language complexity will be evaluated.

The language processes of the content standards (all content areas) will be evaluated *at each grade level* for alignment to the language processes of the ELD standards. Two primary factors will be considered in establishing which standards to compare at each grade level. First, it is important that students' exposure to instruction and opportunity to learn the ELD standards precede or occur concurrently with their exposure to the content standards. This is to ensure that students have due opportunity to learn and apply their learning. Second, comparison of the standards should have a meaningful relationship with the timeframe that students participate in EL programs. While many students are identified as ELs in early childhood, some students enter the status later in their K-12 program. Therefore, to best describe the learning opportunities in the context of academic language, each body of content standards at grade level will be compared with the ELD standards *at the current grade band and one grade band below*.

Language Process Concurrence

Language process concurrence refers to how similar and consistent language processes are represented in the content standards and ELD Standards. The intent of this criterion, as used in this study, is to examine the extent to which the language processes required at grade level for the North Carolina content standards are addressed by the language processes described in the grade band and the grade band below of the ELD Standards; and

Reviewers' final alignment judgments will be used to establish the language processes by each standard (both content and ELD). For each language process found in the North Carolina content

standards, the ELD Standards will be compared in terms of the number of hits for the language process (Table 1).

Table 1. Flags for Language Process Concurrence

	Criteria	Evaluation
No Flag	The ELD Standards contained within five instances of language process as the count of that language process in the North Carolina content standards.	Alignment
Flag	The language process identified in the North Carolina content standards was not represented in the comparison ELD Standards.	No Alignment

When investigating access, we expect that the WIDA 2020 ELD standards will encompass the language skills expected by the North Carolina content standards. Figure 5 conceptualizes the different types of alignment that may be uncovered through the study. The smaller circle represents the language skills that are expected to access the content area standards. The larger circle shows the language skills that are expected through the ELD standards. A student will only be able to access the breadth of the content area standards if all the language demands expected in the system are found in the ELD standards. The challenge of the technical analyses is to figure out which Venn Diagram best represents the relationship between language expectations of the content area standards and the ELD standards. In a situation where some skills fall outside of the ELD standards, a determination must be made about what degree of alignment is acceptable.

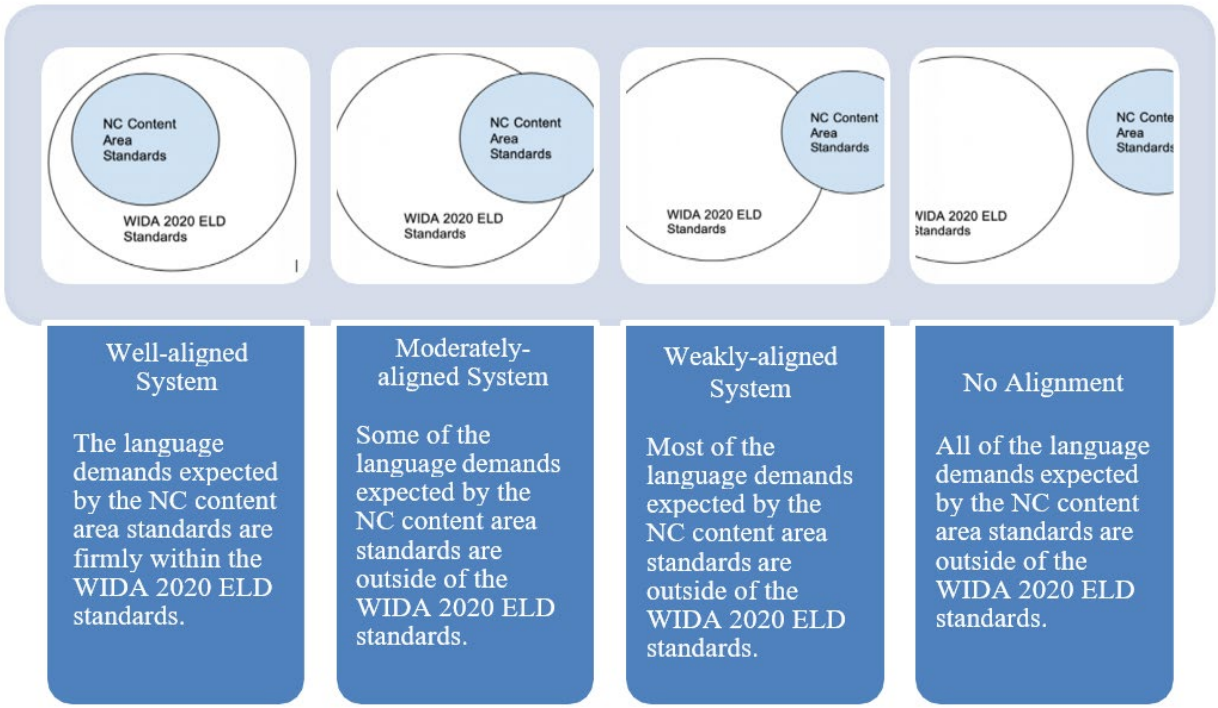

Figure 5. Venn Diagrams Demonstrating Types of Alignment

To determine the relationship between the two sets of standards, we will find the language demands associated with each North Carolina content standard. We will then look to see if that language demand is covered by the WIDA 2020 ELD standards. Table 2 shows an illustration of this logic for an example standard (NC.4.OA.1).

Table 2. Example of Language Demands Associated with North Carolina Standard

Standard	Language Demand	In the WIDA 2020 ELD Standards?	% Covered
NC.4.O A.1	Representing	Yes	100%
	Identifying	Yes	
	Describing	Yes	
	Defining	Yes	
	Comparing	Yes	
	Analyzing	Yes	

For each standard, we will investigate the extent to which the expected language demands, as established by the North Carolina content standards, are found in the WIDA 2020 ELD standards.

Language Complexity

The ELD standards should have the same language complexity and rigor as that expected by the content standards. The reviewers will investigate the complexity of the standards and assign a rating of low, medium, or high to correspond with the Sato (2022) Framework's definition of language complexity. Each standard (content and ELD) will be assigned a complexity level (i.e., 1-3).

Complexity consistency of the ELD standards to the content standards will be evaluated (Table 3). The percentage of ELD standards at or above the complexity of the content standard's target complexity will be evaluated. Targets will be established as the rounded average of the content standards' language complexity ratings by grade level. The ELD standards used in the comparison will be from the grade band of the comparison grade plus the grade band below.

Table 3. Flags for Language Complexity Evaluation

	Criteria	Evaluation
No Flag	50% or more of the ELD standards were at or above the complexity level of the content standard target complexity.	Alignment
Flag	Less than 30% of the ELD standards were at or above the complexity level of the content standard target complexity.	No Alignment

Achievement Level Descriptors

As a final look at alignment, content expert ratings of the North Carolina Proficient ALDs for tested grades will be compiled and evaluated for expected language processes and language complexity. When investigating achievement, we assume that, in some cases, the language demands for students at lower achievement levels may not be as complex as those for students at higher levels. However, we will investigate the language demand concurrence by achievement level to ensure that EL students at the Proficient level have access to language skills.

The expert raters will apply the Framework (Sato, 2022) codes consistent with their application to the standards. Language processes and language complexity will be compared between each grade-level content area Proficient ALD and the grade band ELD standards. Any language processes identified in the ALD that is not present in the ELD standards for that grade band will be flagged. Results of this expert review will be summarized descriptive in preparation for the workshop.

Section 3. Roles and Responsibilities

This section describes the roles and responsibilities for participants and study leadership.

Expert Review

Four expert raters will apply the Sato (2022) Framework to all standards and ALDs. Dr. Deborah Busch served as the language expert and lead rater. Dr. Melia Franklin will serve as the ELA expert, Ms. Shina Roc-Bassett as the Mathematics expert, and Ms. Kristen McKinney as the Science expert. Each rater brings deep knowledge of alignment evaluations, standards and assessment, English language development, and linguistics and academic language demands. See Table 4 for the roles and qualifications of study staff.

Table 4. Qualifications of Expert Reviewers

Staff Member	Study Role	Qualifications
Dr. Anne Davidson	Study Lead	Dr. Davidson has led numerous alignment studies and has worked on EL programs for over a decade. She led one of the first alignment studies between EL and ELA standards.
Dr. Deborah Busch	Linguistics/Academic Language Expert	Dr. Busch has decades of experience in second language education, including linguistics, academic language, and the development of K-12 assessments.
Dr. Melia Franklin	ELA Content Expert	Dr. Franklin was the ELA Director for the Missouri DOE and oversaw the development of the statewide ELA assessment.
Shina Roc-Bassett	Mathematics Content Expert	Ms. Bassett has served as a K-12 mathematics assessment specialist for over 15 years and has worked on second language proficiency exams.
Kristen McKinney	Science Content Expert	Ms. McKinney led the implementation of three-dimensional science standards and development of state science assessments for the Missouri DOE.

Panelist Recruitment

Following the expert review, 45 educators will be convened in an in-person workshop. An online orientation webinar will precede this workshop.

For the proposed alignment study, we recommend that 45 North Carolina educators be recruited for the nine grade-span panels. Each panel should include at least one grade-level content teacher, one EL teacher, and one special education teacher. Table 5 shows the suggested panel configuration for the study. The EL teachers should have strong knowledge of the WIDA 2020 ELD standards, the special education teachers should have strong knowledge of the North Carolina extended standards, and the general education teachers should have strong knowledge of the North Carolina content standards.

EdMetric will look to NCDPI for guidance on the parameters that should be considered when recruiting teachers in order to best support the claim we are evaluating (e.g., region of state, school type, panelist demographics, etc.). EdMetric will work closely with NCDPI to assign panelists to alignment work teams and to collect relevant information about workshop participants including demographic information and teaching experience.

Table 5. Suggested Panel Configuration

Grade/Grade Span	ELA	Math	Science	Total Number of Panelists
K-4	5	5	5	15
5-8	5	5	5	15
High School	5	5	5	15

EdMetric will outline panelist requirements and work with NCDPI to recruit panelists from a list supplied by NCDPI.

NCDPI Staff

A member of NCDPI should welcome panelists during the opening session of the workshop. In addition, NCDPI staff should be available throughout the workshop to answer policy-related questions.

Workshop Roles and Responsibilities

Various roles and responsibilities must be covered to address the requirements of an alignment study with fidelity, including lead facilitator and content area facilitators. Table 6 designates staff and specifies each person's role in the study.

Table 6. Workshop Staff

Staff Member	Role	Responsibility
Dr. Anne Davidson	Study Lead and Workshop Lead Facilitator	Dr. Davidson will design the workshop. She will provide workshop oversight and answer panelist questions. She will also provide room support for the content areas.
Dr. Karla Egan	Study Co-Lead	Dr. Egan will support the design of the workshop.
Dr. Deborah Busch	Study Language Expert	Dr. Busch will support the workshop preparation and materials development related to the Sato (2022) *Language Processes and Language Complexity Framework*.
Dr. Phoebe Winter	Workshop Content Area Lead	Dr. Winter will serve as the content area lead for the math group.
Dr. Hillary Michaels	Workshop Content Area Lead	Dr. Michaels will serve as the content area lead for the science group.
Dr. Melia Franklin	Workshop Content Area Lead	Dr. Franklin will serve as the content area lead for the ELA group.

Section 4. Workshop Implementation

This section details the planned study implementation using an in-person workshop format. All North Carolina Standard Course of Study and North Carolina Extended Content Standards and the WIDA 2020 ELD standards will be included in the review.

Prior to the Workshop

Workshop Site Development

EdMetric will create a Moodle site for all workshop panelists that will serve as a centralized browser-based location for all workshop materials. This site allows us to control logins to workshop hours. It also allows each panelist to maintain a separate login.

Online Orientation Webinar

Prior to the in-person alignment workshop, EdMetric will schedule an online orientation webinar to provide participants with an overview of the purpose of the alignment study, a discussion of roles and responsibilities, and a review of the materials participants will use during the workshop (e.g., standards documents, ALDs, Language Processes and Language Complexity Framework). Alignment of ELD standards with academic content standards poses particular challenges because it requires a determination of the language demands reflected in the academic content standards and an understanding of the nature and structure of both the ELD standards and content standards evaluated. An orientation webinar will help familiarize participants with the alignment study's purpose, materials, and processes.

Panelist Registration

Panelists will register for the workshop using Google Forms. Prior to the workshop, all panelists will be asked to sign a non-disclosure agreement. Once a non-disclosure agreement is received, a panelist will receive a meeting invitation with the link to Zoom.

In-Person Alignment Workshop

EdMetric will conduct an in-person alignment workshop involving North Carolina educators. Participants will review, discuss, and revise aspects of the Phase I work. Dr. Davidson will kick off the meeting with general training, and Dr. Busch will train workshop participants on the Sato (2022) Framework (Appendix A). This will ensure consistency in understanding of the Framework and its application in the evaluation of the standards and ALDs. Following the general training, panelists will divide into small groups and apply the Framework to a practice set of standards. Panelists will take a brief online survey to gauge their level of understanding of the Framework and its application, as well as to identify areas of confusion or concern. Once questions are addressed, the panelists will begin their alignment work.

Following training, panelists will work both in groups and independently to complete their work. EdMetric staff will monitor our workshop tool to ensure that work is being completed in a timely manner. Group facilitators will be available to answer panelists' questions. Throughout the workshop process, EdMetric staff will survey participants to ensure the effectiveness of the training and panelists' understanding of the alignment processes. NCDPI content experts will participate as observers and be available to answer questions raised about content-related issues.

> *Access to North Carolina Content Standards.* Panelists will review expert ratings of the standards selected for practice and training. This will provide insight on the levels of agreement between the panelists and the experts. Panelists will review the expert ratings of the WIDA 2020 ELD standards and North Carolina content standards as a starting point. Training will emphasize the importance of educators bringing their professional expertise and judgment to bear on the final ratings.

In the proposed meeting, panelists will participate in multiple rounds of discussion to talk about areas of disagreement in their alignment work. Panelists will be encouraged (but not forced) to come to a joint agreement during the meeting if possible. The workshop will conclude with a participant evaluation that will contribute to the overall validity of the alignment process and the use of the assessments in the context of North Carolina's statewide assessment system. Table 7 shows a high-level agenda based on the workshop design.

Table 7. High-level Workshop Agenda

Time	Activities
DAY 1	

8:30 a.m.	● Workshop opening session
	● General training on the Language Processes and Language Complexity Framework (Sato, 2022)
	● Content-Area Breakout
	  ○ Training on the Practice Standards (Content standards and ELD standards)
	  ○ Panel work: Practice set
	● Complete Readiness Survey

12:00 p.m.	Lunch break

12:30 p.m.	● Panel work
	  ○ Independent review of expert ratings of first grade level
	  ○ Discuss rating disagreements within the group
	  ○ Revise ratings of standards based on discussion

3:30 p.m.	● Panel work
	  ○ Begin independent review of expert ratings of second grade level
	  ○ Discuss rating disagreements within the group
	  ○ Revise ratings of standards based on discussion

5:00 p.m.	Adjourn for the day
DAY 2	

8:30 a.m.	● Panel work
	  ○ Complete independent review of expert ratings of second grade level
	  ○ Discuss rating disagreements within the group
	  Revise ratings of standards based on discussion

10:30 a.m.	● Panel work
	  ○ Independent review of expert ratings of third grade level
	  ○ Discuss rating disagreements within the group
	  ○ Revise ratings of standards based on discussion

12:00 p.m.	Lunch break

Time	Activities

12:30 p.m.	• Panel work
	  ○ Independent review of expert ratings of fourth grade level
	  ○ Discuss rating disagreements within the group
	  ○ Revise ratings of standards based on discussion

4:45 p.m.	• Complete Final Evaluation
5:00 p.m.	Adjourn for the day

Opening Session and Training Overview

The workshop will begin with an opening session where a member of the NCDPI leadership will welcome and thank panelists, and provide an overview of the assessments and content standards and the many ways that educators have shaped the assessments. Next, the EdMetric lead facilitator and experts will provide a one-hour training session that overviews the alignment process for the panelists.

After the opening session, panelists will enter breakout rooms specific to their assigned group where they will engage in further training. A facilitator will lead the group through a review of a small number of practice standards. The purpose of this part of the training is to develop a common understanding of the Sato (2022) Framework and to ensure its consistent application across panelists. The experts will then couple this understanding with their deep expertise of the content to evaluate (code) the language demands in each set of standards.

Following the completion of training, panelists will take a readiness survey which asks them to indicate whether they believe they are prepared to move forward to standards review and discussion rounds. Throughout the workshop, panelists will be able to contact EdMetric staff with any questions or feedback.

EdMetric trains panelists in multiple ways during the workshop. In this section, we cover each training component.

- **Pre-training.** EdMetric will schedule a 60-to-90-minute webinar for all panelists prior to the in-person workshop. The purpose of the pre-training is to introduce the concepts of alignment as well as the Framework. We will orient panelists to the framework, allowing them to become familiar with the framework prior to the workshop. In addition, we will include the WIDA 2020 ELD standards and the North Carolina content standards.

- **Large-group training.** Immediately following welcome from NCDPI, EdMetric staff will provide an overview of alignment and why it is important.

We will walk through the concepts introduced at the pre-training session.

- **Small-group practice.** Once panelists are in their small groups, our facilitators will introduce the alignment tool and guide the panelists through the first five standards. Standards for training will be selected purposefully to capture key decision rules and to represent the content area subdomains and grade span of the panel. This allows panelists to immediately practice the concepts that they have just heard.

- **Readiness Survey.** After small-group practice, panelists will take a short readiness survey. This survey asks panelists if they feel prepared to begin the first alignment task – evaluating the expert ratings of language demands for each set of standards (North Carolina content standards and WIDA ELD standards). If a panelist answers "no," then an EdMetric facilitator will meet with the panelist individually to answer any questions.

- **PowerPoint Slides.** Part of large-group training and small-group practice will involve PowerPoint slideshows.

- **One-page Overview**. Prior to the workshop, we will send all panelists a one-page overview of alignment in order to acquaint them with the concepts of the workshop.

Round Process

In this section, we describe the round-by-round planned implementation for the workshop.

Round 1. Following the review of the set of training standards, panelists will independently align the remaining standards. Panelists will remain in their breakout rooms for this work. Once all panelists complete their independent work, EdMetric will analyze the data for the agreement with the content expert ratings. Final alignment is based on majority opinion, not consensus.

Round 2. Panelists will discuss those standards where a majority of panelists (more than 50%) disagreed with the original expert rating on language demand codes. The group facilitator will guide the discussion through each standard by showing panelists where a disagreement occurred and asking panelists to discuss why they made the alignments that they did. Once panelists finish the discussion, they will independently align the flagged standards. Once all panelists complete their independent work, EdMetric will analyze the data for the agreement with the content expert ratings.

Round 3. If necessary, we will conduct Round 3 for any remaining standards where the panelist ratings disagree with each other. Here, the group leader will facilitate discussion of the remaining standards and enter the group's final rating for the standard. Again, final alignment is based on the majority, and consensus is not required.

Workshop Monitoring

Throughout the workshop, EdMetric staff will monitor the rooms to ensure all panelists are participating in the workshop discussion. In addition, we will monitor panelist progress through our alignment tool. This will allow us to monitor how quickly panelists are completing their review.

Evaluation Survey

Readiness Survey

After practice, panelists will take a short readiness survey. This survey asks panelists if they feel prepared to begin the rating of standards and use of the language demands framework (Sato, 2022). If a panelist answers "no," then EdMetric's lead facilitator will meet with the panelist to address their questions.

Final Evaluations

After completing the alignment tasks, panelists will take a final evaluation. Panelists will be asked for their opinions on the procedure as well as demographic information. They will also be given the opportunity to provide qualitative feedback for the workshop.

Data Management & Security

EdMetric will use a cloud-based approach to data management and security. For data management of non-secure documents and information, we use Google Workspace tools and applications to integrate teams working in different locations. We will use a mutually agreeable file structure that all team members can access. Google Documents allows us to easily share project documents between all team members. We recognize, however, that some states do not allow the use of Google Workspace tools. If this is the case, then we will work within One Drive to organize and share documents and data.

We use Moodle to organize our workshops. By using Moodle, all panelists have unique log-ins, and we can easily turn on and off access to the workshop, thereby controlling access to data. The Moodle site serves as a central location for all panelist work, and it provides a single place where panelists log-in for workshop activities.

We transfer secure data (e.g., personally-identifiable student information, item metadata with answer keys) using Sync.com. This system allows us to use email files and folders of any size, without using attachments. We provide our clients with a secure link where they can easily upload and download secure data. It allows us to set password protection and expiration dates to better secure files.

Capturing Results

EdMetric will use our specialized alignment tool for the study. This tool allows panelists to easily enter their alignment ratings, and it allows us to capture and aggregate data in real

time. We feed the final results from this tool into our data analysis program that allows us to efficiently report alignment results for study criteria.

Section 5. Technical Report

EdMetric will document the process and results in a comprehensive technical report. The technical report will contain a narrative description of the workshop, detailed information about judgments made by panelists, information about discussions, graphical representations of panelists' judgments, detailed summaries of panelists' evaluations, and copies of the handouts and slide decks used during the alignment workshop. Figure 6 presents a proposed table of contents for the alignment study report, which can be updated to reflect developments in the study with approval by NCDPI.

Table of Contents

Figure 6. Proposed Table of Contents of Alignment Technical Report

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Appendix A. Sato (2022) Framework and Worked Examples

The study will use the *Language Processes & Language Complexity Framework: Academic English Language* (Sato, 2022), with permission from the author. The following excerpts and Table A1 and Table A2 quoted here will be used by raters to code all bodies of standards.

Table A1: LANGUAGE PROCESSES

Notes:

Column 1 (far left) is the language process category.

Column 2 presents the related subcategory/subcategories of the language process. These subcategories exist to reflect the range of ways a language process (Column 1) may manifest within and across academic content areas.

Column 3 presents the operational definition of the language processes.

Column 4 presents a way that language processes could be coded when evaluating content. This example is coding content at the highest language process level (i.e., the language process category listed in Column 1).

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
Identifying	**Identification**	a word or phrase to name an object, action, event, idea, fact, problem, need, or process.	score 0-1 (at highest level of "identifying" --column 1 of this table) 0=absent/no 1=present/yes
	Labeling	a word or phrase to name an object, action, event, idea, feeling (can be concrete or abstract).	
	Enumeration	words or phrases to name distinct objects, actions, events, or ideas in a series, set, or in steps.	
Classifying	**Classification**	words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs.	score 0-1
	Organization	words, phrases, or sentences to express relationships between/among objects, actions, events, or ideas, or the structure or arrangement of information. Discourse markers include coordinating conjunctions such as *and*, *but*, *yet*, *or*.	

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
	Sequence	words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). Discourse markers include adverbials such as *first*, *next*, *then*, *finally*.	
Comparing	**Comparison/Contrast**	words, phrases, or sentences to express similarities and/or differences, or to distinguish between two or more objects, actions, events, or ideas. Discourse markers include coordinating conjunctions *and*, *but*, *yet*, *or*, and adverbials such as *similarly*, *likewise*, *in contrast*, *instead*, *despite this*.	score 0-1
Inquiring	**Inquiry**	words, phrases, or sentences to solicit information (e.g., *yes-no* questions, *wh*-questions, statements used as questions).	score 0-1
Imperative	**Command** **Direct** **Instruct**	words, phrases, or sentences that give a direct order, provide instruction, communicate a request, command, or demand, or offer an invitation or advice. The subject is often implied.	score 0-1
Describing	**Description**	word, phrase, or sentence to express or observe the attributes or properties of an object, action, event, idea, or solution.	score 0-1
Defining	**Definition**	word, phrase, or sentence to express the meaning of a given word, phrase, or expression.	score 0-1
Explaining	**Causality**	phrases or sentences to express causal relationships, causes and effects related to one or more actions or events. Discourse markers include coordinating conjunctions *so* and	score 0-1

Linguistic Features: Language Processes		*Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:*	For coding
		because, and adverbials such as *therefore*, *as a result*, *thus.*	
	Explanation	phrases or sentences to express the rationale, reasons, or relationships related to one or more actions, events, ideas, or processes that are non-causal. Discourse markers include coordinating conjunctions *for*, and adverbials such as *for that reason*.	
Summarizing	**Retelling**	phrases or sentences to relate or repeat information. Discourse markers include coordinating conjunctions such as *and*, *but*, and adverbials such as *first*, *next*, *then*, *finally*.	score 0-1
	Summarization / Synthesis	phrases or sentences to express important facts or ideas and relevant details about one or more objects, actions, events, ideas, or processes. Discourse structures include: beginning with an introductory sentence that specifies purpose or topic.	
Interpreting	**Interpretation**	phrases, sentences, or symbols to express understanding of the intended or alternate meaning of information.	score 0-1
Analyzing	**Analysis/ Evaluation**	phrases or sentences to indicate parts of a whole and/or the relationship between/among parts of an action, event, idea, or process. Relationship verbs such as *contain*, *entail*, *consist of*, partitives such as *a part of*, *a segment of*, and quantifiers such as *some*, *a good number of*, *almost all*, *a few*, *hardly any* often are used. phrases or sentences to express a judgment about the meaning, importance, or significance of an action, event, idea, or text.	score 0-1
Extended Thinking	**Generalization**	phrases or sentences to express an opinion, principle, trend, or conclusion that is based on facts, statistics, or other information, and/or to extend that opinion/principle/etc. to other relevant situations/contexts/etc.	score 0-1

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
	Inference	words, phrases, or sentences to express understanding of implied/implicit based on available information. Discourse markers include inferential logical connectors such as *although*, *while*, *thus*, *therefore*.	
	Prediction	words, phrases, or sentences to express an idea or notion about a future action or event based on available information. Discourse markers include adverbials such as *maybe*, *perhaps*, *obviously*, *evidently*.	
	Hypothesis	phrases or sentences to express an idea/expectation or possible outcome based on available information. Discourse markers include adverbials such as *generally*, *typically*, *obviously*, *evidently*.	
Persuading	**Argumentation**	phrases or sentences to present a point of view with the intent of communicating or supporting a particular position or conviction. Discourse structures include expressions such as *in my opinion*, *it seems to me*, and adverbials such as *since*, *because*, *although*, *however*.	score 0-1
	Persuasion	phrases or sentences to present ideas, opinions, and/or principles with the intent of creating agreement around or convincing others of a position or conviction. Discourse markers include expressions such as *in my opinion*, *it seems to me*, and adverbials such as *since*, *because*, *although*, *however*.	
	Negotiation	phrases or sentences to engage in a discussion with the purpose of creating mutual agreement from two or more different points of view.	
Critiquing	**Critique**	phrases or sentences to express a focused review or analysis of an object, action, event, idea, or text.	score 0-1
Representing	**Symbolization & Representation**	symbols, numerals, and letters, to represent meaning within a conventional context (e.g., +, -, CO_2, >, Δ, π, cos, $y=3x+4$, $c_2=a_2+b_2$, $h/2(b_1+b_2)$, *cat* vs. cat).	score 0-1

Linguistic Features: Language Processes		***Operational Definition—The English language needed to engage with and achieve in the content (standard or item) consists of the use of:***	**For coding**
None	**No Academic Language Function**	Item or standard does not contain *any* academic language functions; may contain linguistic skills (e.g., phonemic awareness, syllabication).	0=there is academic language function 1=there is NO academic language function

Based on: Sato, Lagunoff, Worth, Bailey, & Butler, 2005; Sato, Lagunoff, & Worth, 2008; Sato & Lagunoff, 2010; Kao & Sato, 2020

Table A2: LANGUAGE COMPLEXITY

This language complexity rubric can be applied to stimuli, prompts/questions, and responses/response options.

This is intended to guide/inform a *holistic* rating of language complexity. Not intended to be used as a checklist.

1 – Lower Complexity	2 – Medium Complexity	3 – Higher Complexity
Common, high-frequency words and phrases.	Some less common words and phrases, some technical words.	Specialized or technical words and phrases or context-specific words and phrases.
Words with mostly familiar construction (e.g., 's for possessive; s and es for plural).	Words with some less familiar/irregular construction.	Words with use of irregular constructions (e.g., vowel changes).
No variation of tense.	Little to no variation in tense.	Variation in tense.
Semantically simple words and phrases; no use of figurative language, and/or idioms.	Some use of semantically complex words and phrases; limited use of figurative language and/or idioms.	Semantically complex words and phrases (e.g., multiple-meaning words); use of figurative language, and/or idioms.
Short, simple sentences with limited modifying words or phrases, including simple *wh-* and *yes/no* questions.	Longer, mostly simple sentences, some compound or complex sentences. Some modifying words or phrases, including longer, mostly simple *wh-* and *yes/no* questions.	Long, compound and complex sentences; longer sentences with modifying words, phrases, and clauses, multiple subordinate clauses, multiple modifiers, including complex *wh-* and *yes/no* question constructions and tag questions.
Length ranges from a word to phrases or simple sentences. Short texts, or longer texts chunked into short sections (words, phrases, single sentences, very short paragraphs)	Length ranges from a word to phrases or one or more sentences. Longer texts with some chunking, longer series of sentences, longer paragraphs.	Length ranges from a word to phrases or one or more sentences to paragraphs to a passage. Long texts (long lists of words/phrases, a series of sentences, long paragraphs, multiple-paragraph texts).
No/little variation in words and/or phrases in sentences/paragraphs; consistent use of language.	Some variation in words and/or phrases in sentences/paragraphs.	High variation in words and/or phrases in sentences/paragraphs.

1 – Lower Complexity	2 – Medium Complexity	3 – Higher Complexity
Repetition of key words/phrases/sentences *reinforces* information.	Repetition of key words/phrases/sentences *introduces new* or *extends* information.	Repetition of key words/phrases/sentences *introduces new* or *extends* information and/or abstract ideas.
No/little abstraction; language reflects more literal/concrete information.	Some abstraction; illustrative language is used; language is used to define/explain abstract information.	Some abstraction; language *may or may not* be used to define/explain abstract information; illustrative language *may or may not* be used; technical words/phrases are used.
Little to no use of visual aids and graphics; graphics that are used for decoration or to increase motivation but are non-essential to key points; relevant text features used to highlight main points.	Visual aids, graphics and/or relevant text features use to highlight main points or reinforce critical information/details.	Visual aids, graphics and/or relevant text features *synthesizes* critical information/details.
Language is organized/structured.	Language is mostly organized/structured but may contain some ill-structured text.	Language *may or may not* be organized/structured.
Familiar and simple text features (e.g., bold face, underline, headings).	Mostly familiar text features (e.g., bulleted lists, text boxes, glossary, index, sidebars).	Some less familiar text features (e.g., pronunciation keys, maps, overlays).

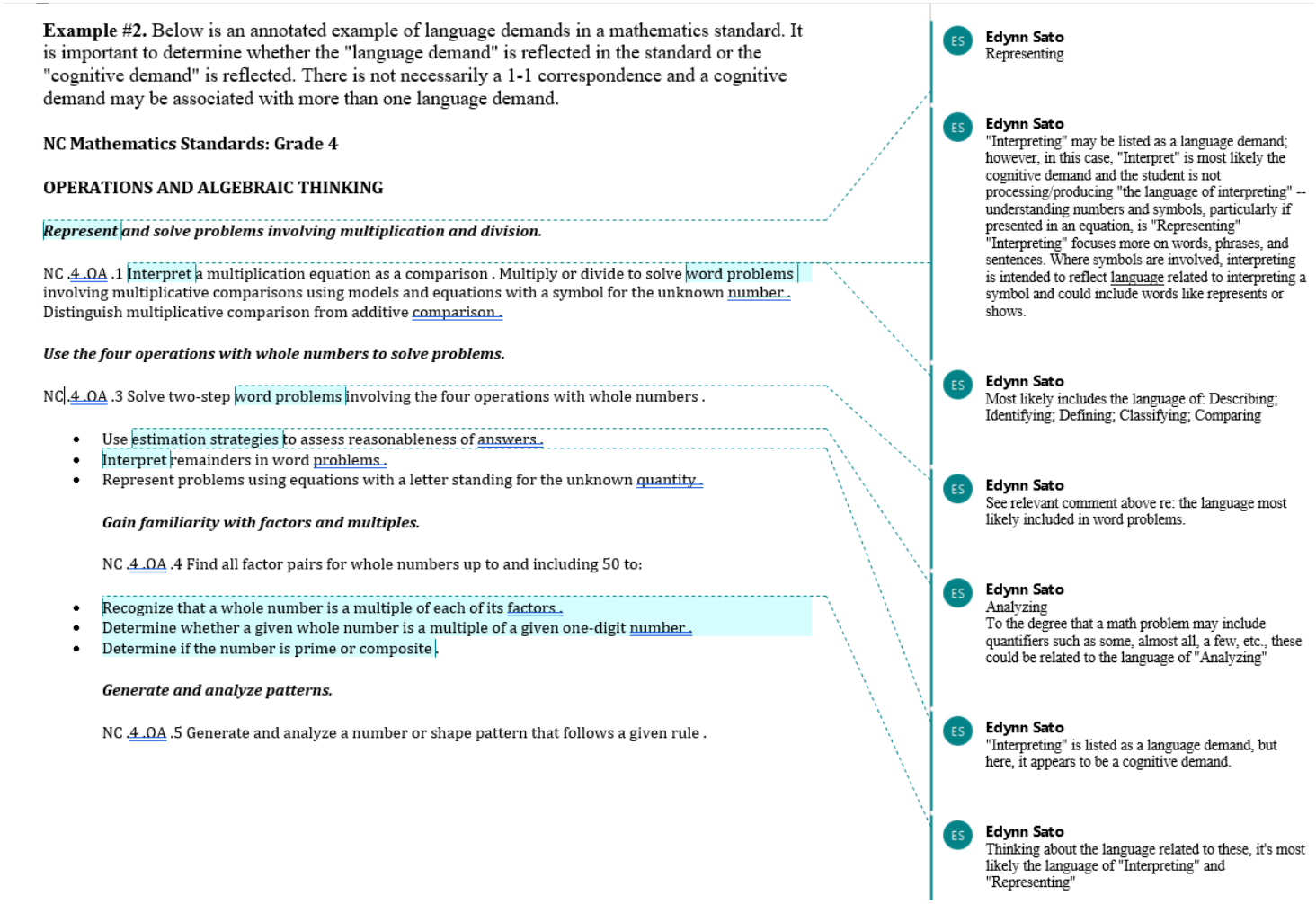
Example #1. Question: Distinguish between Interpretive and Expressive when appropriate?

Note: This was done really quickly for illustrative purposes, so some language demands may have been unintentionally omitted.

Grade band	Language Demands in WIDA Standard	Language Demands in North Carolina Standards	
WIDA 4-5 **NC Gr. 4**	**WIDA ELD Standard 2:** *="Interpretive" (may also be "Expressive" but more explicitly interpretive) Narrate • Interpreting* • Identifying* • Analyzing* • Defining* • Describing • Classifying Inform • Interpreting* • Identifying* • Analyzing* • Defining • Describing • Comparing • Classifying • Extended thinking	**Mathematical Practice:** ("Interpretive") *1. Make sense of problems and persevere in solving them .* *2 . Reason abstractly and quantitatively.* These mathematical practices would most likely involve the language of: • Interpreting • Identifying • Analyzing • Describing • Comparing • Classifying • Extended thinking • Representing	**Mathematical Practice:** ("Expressive") *3 . Construct viable arguments and critique the reasoning of others.* *4 . Model with mathematics .* *5 . Use appropriate tools strategically.* *6 . Attend to precision.* *7 . Look for and make use of structure.* *8 . Look for and express regularity in repeated reasoning.* These mathematical practices would most likely involve the language of: • Identifying • Describing • Defining • Comparing • Classifying • Explaining • Extended thinking • Representing

Grade band	Language Demands in WIDA Standard	Language Demands in North Carolina Standards	
	Argue • Interpreting* • Identifying* • Analyzing* • Evaluating* • Describing • Explaining • Summarizing • Imperative Explain • Interpreting* • Identifying* • Analyzing* • Evaluating* • Describing • Explaining • Classifying • Comparing • Representing	**Operations and Algebraic Thinking** (see below for more explanation)**:** These standards would most likely involve the language of: • Representing • Identifying • Describing • Defining • Comparing • Classifying • Analyzing	

Example #2. Below is an annotated example of language demands in a mathematics standard. It is important to determine whether the "language demand" is reflected in the standard or the "cognitive demand" is reflected. There is not necessarily a 1-1 correspondence and a cognitive demand may be associated with more than one language demand.



NC ELD Standards Study

January 30-31, 2023 8:30am - 5:00pm

Day 1	
Times	**Activities**
8:30 - 9:30 am	*All Study Participants* ○ Welcome from the North Carolina Department of Public Instruction ○ Welcome from EdMetric ○ Housekeeping ○ Training Overview ○ Alignment Introduction ■ Module 1 Slides *General Materials:* ○ Content Standards ○ Extended Standards ○ WIDA Standards ○ Framework Document
9:30 - 9:45 am	*Break*
9:45 - 10:45 am	*All Study Participants* ○ Language Process Training ■ Module 2 Language Process Slides ○ Language Complexity Training ■ Module 3 Language Complexity Slides ■ Module 4 Decision Rules Slides

10:45 am - 12:00 pm	*Panels* *Training Set* ○ Panelists independently rate 10 standards selected for training. ■ Training Set Tool Link ○ Group leaders will remain with the group during this time. ○ Discuss training standards with disagreement. ○ Re-rate training standards. ○ Readiness Survey
12:00 - 12:30 pm	*Lunch*
12:30 - 3:30 pm	*Common Set #1 - Calibration* ○ Calibration Validation Training ■ Module 5 Calibration Validation Training Slides ○ Panelists independently rate 30 standards. ■ Calibration Set Tool Link ○ Group leaders will remain with the group during this time. ○ Discuss training standards with disagreement. ○ Re-rate training standards.
3:30 - 3:45 pm	*Break*
3:45 - 5:00 pm	*Begin Common Set #2 - Validation* ○ Panelists independently rate 30 standards. ■ Validation Set Tool Link ○ Group leaders will remain with the group during this time. ○ Discuss standards with disagreement. ○ Re-rate standards.

Day 2	
Time	**Activities**
8:30 - 9:00 am	*Panels* *Complete Common Set #2 - Validation* ○ Orientation Day 2 ■ Module 6 Orientation Day 2 ○ Panelists complete independently rating the 30 standards. ○ Group leaders will remain with the group during this time. ○ Discuss standards with disagreement. ○ Re-rate standards.
9:00 am - 12:00 pm	*Panels* *Individual Standard Sets* ○ Panelists independently rate and submit standards assigned to them. ■ Individual Set Tool Link ○ Group leaders will remain with the group during this time.
12:00 - 12:30 pm	*Lunch*
12:30 - 4:45 pm	*Panels* *Achievement Level Descriptor Activity* ○ Panelists review assigned ALDs for language demands (processes and complexity range). ○ Table leaders record the results of panel decisions. ALD Language Demand Review

4:45 - 5:00 pm	*Panels* ○ Final Evaluation ○ Best Wishes and Thanks!

Language Processes and Language Complexity Framework

Orientation and Training

Edynn Sato, Ph.D.
November 2022

satoeducationconsulting.com

Overview

- *Language Processes and Language Complexity Framework*
  - Background
  - Purpose
  - Structure
  - Other Key Points
- Framework application
  - Language vs. cognitive processes
  - Discerning the language of focus
  - Decision rules

Objectives:

- Participants will become familiar with the background, purpose, and structure of the *Language Processes and Language Complexity Framework*
- Participants will practice applying the *Framework* to several examples

Background:

- Federal requirement
  - Title III of the No Child Left Behind Act (2001) and subsequent reauthorizations of the Elementary and Secondary Education Act
    - Alignment between state content standards and state English language development (ELD) standards
- Challenges to meeting this requirement
  - No procedures for examining alignment between standards of different content areas
  - No agreed-upon definition of "academic English language" (language demands of academic content)

Background:

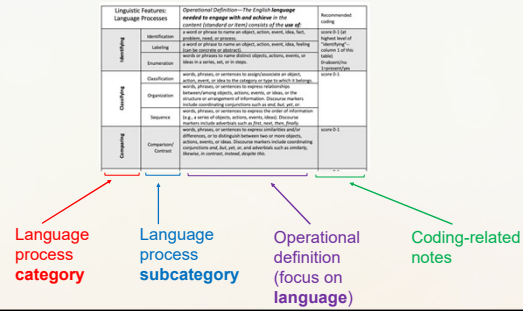
- Need
  - The nature of the alignment between state content and ELD standards was unspecified in Federal requirements and related guidance
  - Focused evaluation of the **language** required to achieve grade-level content was needed
    - More specifically, a way to evaluate **academic English language** was needed

Purpose:

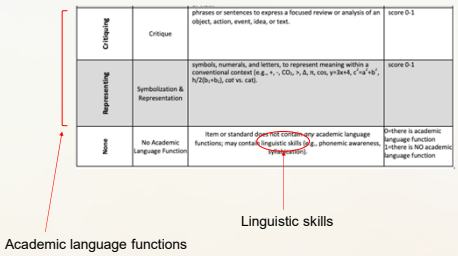
The *Language Processes and Language Complexity Framework*:

- Informs the design, development, and evaluation of academic English language demands in materials (e.g., standards, curricula, assessment)
  - Is applicable across content areas and grade levels
- Provides operational definitions of **academic English language** processes and language complexity
  - Offers a "common" way to talk about the **language used in and the language of the content areas**
    - Distinct from the cognitive demands of content

Structure: Language Processes



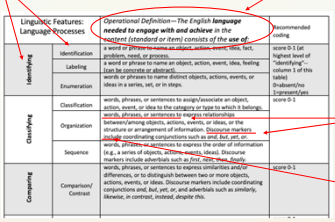
Structure: Aspects of Language Processes



Other Key Points: Language Processes

Although these processes seem like cognitive processes, they are not.

Remember these definitions—they focus on the **language** needed to engage with and achieve academic content.



Linguistic Features: Language Processes		*Operational Definition—The English **language** **needed to engage with and achieve** in the content (standard or item) consists of the **use of**:*	Recommended coding
Identifying	Identification	a word or phrase to name an object, action, event, idea, fact, problem, need, or process.	score 0-1 (at highest level of "identifying"-column 1 of this table) 0=absent/no 1=present/yes
	Labeling	a word or phrase to name an object, action, event, idea, feeling (can be concrete or abstract)	
	Enumeration	words or phrases to name distinct objects, actions, events, or ideas in a series, set, or in steps.	
Classifying	Classification	words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs.	score 0-1
	Organization	words, phrases, or sentences to express relationships between/among objects, actions, events, or ideas, or the structure or arrangement of information. Discourse markers include coordinating conjunctions such as *and, but, yet, or*.	
	Sequence	words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). Discourse markers include adverbials such as *first, next, then, finally*.	
Comparing	Comparison/ Contrast	words, phrases, or sentences to express similarities and/or differences, or to distinguish between two or more objects, actions, events, or ideas. Discourse markers include coordinating conjunctions *and, but, yet, or*, and adverbials such as *similarly, likewise, in contrast, instead, despite this*.	score 0-1

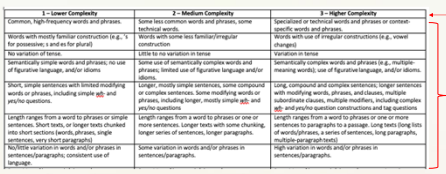
Here's an example of how language is the focus in the definitions.

Note: "Include" indicates it is not a comprehensive list

Other Key Points: Language Processes

- The Framework simply reflects a general "progression" from Language Processes that consist of the use of a word or phrase to Language Processes that consist of the use of phrases or sentences
  - Exceptions are: Representing and No Academic Language Function (found at the end of the Linguistic Features: Language Processes table)
- The Framework is **not** intended to reflect a hierarchy or prioritization

Structure: Language Complexity



1 – Lower Complexity	2 – Medium Complexity	3 – Higher Complexity
Common, high-frequency words and phrases.	Some less common words and phrases, some technical words.	Specialized or technical words and phrases or context-specific words and phrases.
Words with mostly familiar construction (e.g., 's for possessive; s and es for plural)	Words with some less familiar/irregular construction	Words with use of irregular constructions (e.g., vowel changes)
No variation of tense.	Little to no variation in tense	Variation in tense
Semantically simple words and phrases; no use of figurative language, and/or idioms	Some use of semantically complex words and phrases; limited use of figurative language and/or idioms.	Semantically complex words and phrases (e.g., multiple-meaning words); use of figurative language, and/or idioms.
Short, simple sentences with limited modifying words or phrases, including simple adv. and yes/no questions.	Longer, mostly simple sentences, some compound or complex sentences. Some modifying words or phrases, including longer, mostly simple adv. and yes/no questions	Long, compound and complex sentences; longer sentences with modifying words, phrases, and clauses, multiple subordinate clauses, multiple modifiers, including complex adv. and yes/no question constructions and tag questions
Length ranges from a word to phrases or simple sentences. Short texts, or longer texts chunked into short sections (words, phrases, single sentences, very short paragraphs)	Length ranges from a word to phrases or one or more sentences. Longer texts with some chunking, longer series of sentences, longer paragraphs.	Length ranges from a word to phrases or one or more sentences to paragraphs to a passage. Long texts (long lists of words/phrases, a series of sentences, long paragraphs, multiple-paragraph texts)
No/little variation in words and/or phrases in sentences/paragraphs; consistent use of language.	Some variation in words and/or phrases in sentences/paragraphs.	High variation in words and/or phrases in sentences/paragraphs.

Three levels of complexity

Elements that affect the complexity of spoken/written text

Other Key Points: Language Complexity

- Intended to guide/inform a holistic rating of language complexity
- Not intended to be used as a checklist

Framework Application:

- See Word document for exercises.

Questions? Thoughts?

Contact:

Dr. Edynn Sato

Email: edynn@satoeducationconsulting.com

Website: satoeducationconsulting.com

For discussion:

Grade band 3-4
Choose the word that means to keep safe.

A protect
B scared
C danger

Notes:
Defining: "protect" is a word that expresses the meaning of "to keep safe."

The key (protect) and the distractors (scared, danger) function as words presented to the student that could express the meaning of "to keep safe."

Lower complexity

Grade band 3-4
Select the correct words to complete the sentence.

Scientists have still not found a way for humans to make their way to the Red Planet, but they have been able to send robots ____ the surface.
1

1. Which words belong in Blank 1?

Ⓐ is exploring
Ⓑ an exploration
Ⓒ to explore
Ⓓ has explored

Notes:
Describing: The sentence in the item is language that expresses information about an action or event. The key completes the sentence. The distractors function as possible means for completing the sentence.

Comparing: The phrases in the sentence express distinct, contrasting actions. With the marker "but," the sentence reflects a comparison of what the scientists have versus not have been able to do.

Medium complexity

Decision rule:

- For cloze question types, evaluate the key (missing word/phrase) within the context of the sentence to determine the language of focus/language process(es).

Grade band 3-4
How is the square different from the triangle?

Example 1:
Language of describing:
A The square is flat.
B The square is blue.
C The square has five corners.
D The square has straight lines.

Example 2:
Language of comparing:
A The square and triangle are both flat.
B The square is blue, but the triangle is orange.
C The square has five corners, but...
D The square has straight lines, and...

Cognitive Process	Language Process
Comparing Comprehending	Describing (Example 1 and 2) Comparing (Example 2) Representing (Example 1 and 2)

Notes:
Describing: The key and distractors are sentences that express the attributes or properties of an object. In this case, the sentences describe the square or a shape.
Comparing:

Representing

Lower complexity

Decision rule:
Student response language process is primary (answer choices for constructed response items)
Secondary language processes are reflected in the stimulus.

NC.4.OA Operations and Algebraic Thinking

- **Represent and solve problems involving multiplication and division.**
  - **NC.4.OA.1 Interpret a multiplication equation as a comparison. Multiply or divide to solve word problems involving multiplicative comparisons using models and equations with a symbol for the unknown number. Distinguish multiplicative comparison from additive comparison.**

- Multiplication facts to 12: find the missing factor (4-D.5)
- Compare numbers using multiplication (4-D.10)
- Compare numbers using multiplication: word problems (4-D.11)
- Comparison word problems: addition or multiplication? (4-F.3)

Notes:
It is important to first draw a distinction between cognitive demands and language demands.

Represent and solve are cognitive demands.

Interpret is a cognitive demand.

Word problems signals language demands are involved. The language of comparisons will be used in these word problems, as well models, equations, and symbols.
This suggests the following are most likely the primary language demands: Comparing; Representing
There may be other, or "secondary" language demands in word problems such as: Identifying (e.g., labeling); Classifying (e.g., classification, sequence); Describing

Multiplication facts and comparing numbers using multiplication typically would involve numbers and symbols (when not presented as a word problem). Therefore, Representing is the language demand.

It also is important to note that when such information is presented to a student (in instruction or on a test), there are usually directions and questions. Therefore, Inquiring and Imperative are also language demands; however, these may be consider more "global" and not "standard-specific."

WIDA Can Do Descriptors **Grade band 4-5** **KEY USE OF RECOUNT** **READING:**	
Level 1: Process recounts by • Identifying words in context during oral reading of illustrated text on familiar topics or experiences • Highlighting previewed or familiar phrases	Typically a word is used to name or label an object, idea, fact, etc. Therefore, the language demand is likely Identifying
Level 2: Process recounts by • Classifying time- related language in text as present or past	The language involved is most likely: Classifying. That is, words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs and/or words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). There may be other, or "secondary" language demands in word problems such as: Identifying (e.g., labeling); Describing; Representing
• Identifying the "who," "what," "where," and "when" in narrative text with a partner	The language involved is most likely: Describing. That is, words, phrases, or sentences to express or observe the attributes or properties of an object, action, event, idea, or solution. There may be other, or "secondary" language demands in word problems such as: Classifying (e.g., sequence); Comparing; Defining; Explaining; Summarizing (e.g., retelling); Representing

Exercises:

English II (2019 Released)

What is the meaning of *laborious* based on the sentences below from paragraphs 1 and 2?

"Incongruously, her frenetic movements produce a minuscule lace fragment. In fact, a full day's work yields just a few inches of delicate finery."

"The extraordinarily laborious craft of bobbin lace (*renda di bilros* in Portuguese) came to Brazil along with Portuguese colonists who claimed its beautiful northeastern coastline as their own in the seventeenth century."

A easily performed
B extremely dull
C excessively difficult
D quickly finished

Language Process(es)	Language Complexity
Defining: phrase to express the meaning of a given word (laborious) Describing	High complexity complex sentences words with multiple meanings (produce, yields) foreign words key and distractors are adverbial phrases

---

How does the author advance her purpose in the sentences below from paragraph 5?

"If you want to see lacemakers in action, take a day trip to the seaside towns of Iguape or Prainah, both of which boast lacemaking centers where you can watch women and girls making lace. Ask the lacemakers to indicate which patterns are most traditional, as each town is known for its own patterns."

A She encourages everyone to visit Iguape and Prainha to see authentic lacemakers.
B She makes convincing statements about the higher cost of lacemaking in Iguape and Prainha.
C She provides information about the historical role Iguape and Prainha played in creating the art of lacemaking.
D She shares her feelings about the lacemaking practices in Iguape and Prainha that take advantage of women and girls

Language Process(es)	Language Complexity
Summarizing: sentences to express important ideas in the sentences from paragraph 5.	High complexity complex sentences

---

Grade 3 (February 2020 Released)

5

They first gather together a number of sticks and logs about five feet long, which they carry or roll into the stream. While some of the beavers are doing this—for the safety of the village lies in the strength of the foundation[2]—others are gathering and piling up many green branches of trees. These branches, which they have cut from the trees with their teeth, are piled among the sticks and logs, and soon a dam is formed that reaches across the stream.

6

When the foundation of the dam has been finished, the beavers pile stones and mud upon it until they have built a wall ten or twelve feet thick at the bottom and two or three feet thick at the top. After all this has been done, the older and wiser beavers go carefully over every part to see if the dam is of the right shape and is strong and safe; for beavers do not like poor work, and they know that a weak dam is easily washed away.

When the dam has been finished and the pond made, the beavers begin to think about their houses. As they like to have their rooms dry, they raise the floors of their houses some distance above the water, so that when the stream rises during the rainy season they will not be flooded.

What is the connection between paragraphs 5 and 6?

A They present a problem and offer a solution.
B They explain a cause-effect relationship.
C They present a sequence for building.
D They compare habits of wise beavers.

Language Process(es)	Language Complexity
Describing: sentence to express an idea	Low complexity

Why do bevers carefully inspect a dam after building it?

A Beavers need to build a bridge to get across the stream.
B Beavers know that water will wash away a weak dam.

C Beavers want to find the best place to build a house or village.
D Beavers make the walls of their house with big sticks.

Language Process(es)	Language Complexity
Describing: sentence to express an idea	Low complexity

English II (Released)

Exemplars for:

Describing
Summarizing (retelling)
Explaining

Adapted from "The Cloak"

Analyze is cognitive

Analyze how Alex's actions in paragraphs 3 and 4 develop the theme of the text. Use at least one example from the text to support your answer. Explain how the textual evidence supports your answer.

What do the "best" responses mention or contain?

Responses that identified how Alex's obsession for copying developed the theme followed by an example from the text and an explanation. (Many responses had more than one example from the text as support.) Some examples of successful student responses follow:

"He eats to live, and lives to copy."

"He was very devoted to his work."

"Alex was obsessed with his job."

What responses were not given credit?

Responses that only retold the story.

Responses only describing his uniform.

Some student responses that were not given credit are listed below:

"The theme of the text was horses."

"The theme is he is a wonderful guy, but the way he dresses is terrible."

"The theme is that he is careless."

"He got paid a lot."

"He was homeless."

Language Process(es)	Language Complexity

Describing Summarizing Explaining	Depends on student's response

Kerry walks 3 miles each day. How far will she walk in 7 days?

A 10 miles

B 14 miles

C 21 miles

D 24 miles

Language Process(es)	Language Complexity
Representing Describing Inquiring	Low complexity

What is the value of $(5^2 - 10) \div 5 \times 2^3$?

A 0

B 18

C 24

D 40

Language Process(es)	Language Complexity
Representing Inquiring	Low complexity

Jenny bought gas for her car.

- Gas cost $3.45 per gallon.
- Jenny bought 12.2 gallons.

What was the total cost for Jenny's gas?

Express the answer as dollars.cents.

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, . , -, and / are allowed in your answer.
Answers that are mixed numbers must be entered as an improper fraction or decimal.

Language Process(es)	Language Complexity
Representing Describing Inquiring Imperative	Low complexity

Which device is used to determine the volume of a liquid?

A anemometer

B graduated cylinder

C test tube

D thermometer

Language Process(es)	Language Complexity
Defining Inquiring	Low complexity

Which is a primary function of a vacuole in a cell?

A enzyme production

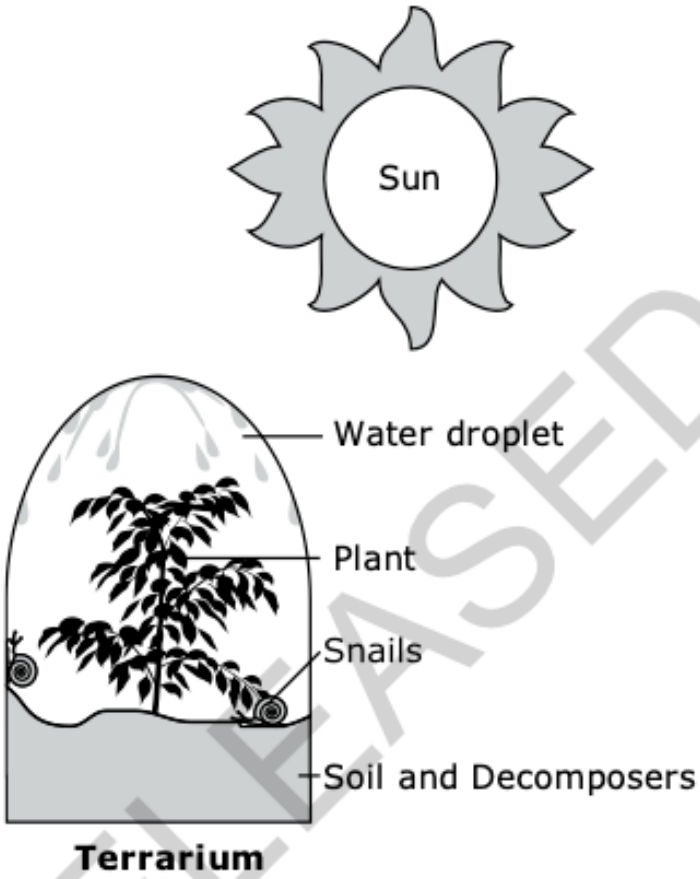
B protein synthesis

C storage

D reproduction

Language Process(es)	Language Complexity
Defining Inquiring	Low complexity

This diagram represents a closed terrarium exposed to sunlight.



Terrarium

What must happen for the carbon cycle to continue in this terrarium?

A All organisms must continue to exchange gases.

B The snails must double their production of carbon dioxide.

C The plant must produce carbon dioxide at a faster rate.

D The decomposers must begin to produce oxygen.

Language Process(es)	Language Complexity
Describing Inquiring Representing Identifying	Low complexity

Which statement ***best*** explains how sweating during exercise maintains homeostasis?

A It regulates mineral concentrations in cells.

B It regulates body temperature.

C It maintains water balance.

D It maintains sugar balance in cells.

Language Process(es)	Language Complexity
Describing Inquiring	Low complexity

Which effect could a mutation in mRNA have on the production of proteins?

A The protein produced will have a different identity.

B The protein produced will have a coiled shape.

C The protein produced will produce excess nitrogen.

D The protein produced will produce excess water.

Language Process(es)	Language Complexity
Describing Inquiring	Low complexity

Exercise: Parsing standards statements and determining the language of focus.

Inferencing: the language of inferencing reflects a conclusion drawn from across sentences or from a passage. The language reflects an implicit or explicit connection between ideas that are not directly linked in the stimulus
e.g., The language reflects something to the effect of "A is like b and B is like C, therefore A is like C"

CCR Anchor Standards for Reading

Key Ideas and Evidence	Language Process(es)	
1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	Describing Summarizing (retelling) Explaining Extended Thinking Inference (Prediction)	e.g., Grade 4 Why did the author write this? What evidence supports your idea? What is the best evidence to show _____? Why did _____? What examples from the story support the reason? Why did (event) happen? How do you know? What does (character) think about (event)? How do you know? What do you think (character) will do differently next time? Explain why (character or object) is important to the story.
2. Determine central ideas (RI) or themes (RL) of a text and analyze their development; summarize the key supporting details and ideas.	Summarizing Describing Explaining	What happened at the beginning, middle, and end of the story? What is a summary of this story? What is the lesson you should learn from this story? What is this story trying to teach? What does _____ represent in the story?
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.	Summarizing Describing Classifying	How does (character) feel at this part of the story? How do you know? How does (character) actions change what happens in the story? How would the story be different without them?

		What problem does (character) have in the story? How does he/she solve their problem? How is (character) different at the end of the story then at the beginning? How does (character) react when _____? Why does he/ she act this way? How does (character) change throughout the story? What are (character) personality traits? How does his/her personality affect what happens in the story? Why is the setting important to the story? Why does the author use this setting? How does the character use the features of the setting to help them?
Craft and Structure		
4. Interpret words and phrases as they are used in a text and analyze how specific word choices shape meaning or tone.	Describing Explaining	What does this word mean? How do you know? What words in the text tell how (character) feels? What does (phrase) mean? Does it mean exactly what it says (e.g. hit the road) or does it mean something else (e.g. get going)?
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.	Describing Classifying Summarizing Explaining	How are the parts of the story connected? How does this section/chapter help the reader understand the setting? How does this scene build suspense? How would you retell this story, including important parts from the beginning, middle, and end? *In poetry* what stanza is the most interesting to you? Why? Why did the author organize the story like this? How would it be different if the order were changed?

		In drama how does this structure help you understand what is going on? What helps you picture the story?
6. Assess how point of view, perspective, or purpose shapes the content and style of a text.	Describing Explaining	Who is telling this story? How do you know? Are the narrator and the author the same person? How do you know? What point of view is this written from? What does (character/narrator) think of (event/action)? What do you think? What would you have done differently?
Integration of Ideas and Analysis		
7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.	Describing Comparing Explaining	What does this illustration show? What was different when you read the drama and when you saw the drama (either live or video)? The story says (insert quote). Where do you see that happening in the illustrations? How is the story the same as the film? How is it different? Which do you prefer and why?
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.	Describing Explaining Summarizing	Identify two points the author is trying to make…? Did the author use any facts (evidence) to support his (her) thinking….? Why did the author write this…? Could the author have added more evidence to make the points stronger…? Give/list examples
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	Describing Comparing Explaining Summarizing	How does (version 1) differ from (version 2) of this story? How are the versions the same? How did the theme/setting/plot of the different stories stay the same? What is different? Which text was better at getting the point/lesson/point of view across? Why did you like it better?

		How did the characters solve problems in the same way? How were the solutions different?
Range of Reading and Level of Complexity		
10. Read and understand complex literary and informational texts independently and proficiently, connecting prior knowledge and experiences to text.	This will depend on the text.	

NC .4 .OA .1 Interpret a multiplication equation as a comparison . Multiply or divide to solve word problems involving multiplicative comparisons using models and equations with a symbol for the unknown number. Distinguish multiplicative comparison from additive comparison.

An example of a multiplicative comparison word problem:

Maria has two cookies.
Tyra has three times as many cookies as Maria.
How many cookies does Tyra have?

Language Process(es)	Language Complexity
Representing Describing Inquiring	Low complexity

Grade band	Language Demands in WIDA Standard	Language Demands in NC Standards	
WIDA 4-5 **NC Gr. 4**	**WIDA ELD Standard 2:** *="Interpretive" (may also be "Expressive" but more explicitly interpretive) Narrate • Interpreting* • Identifying* • Analyzing* • Defining* • Describing • Classifying Inform • Interpreting* • Identifying* • Analyzing* • Defining • Describing • Comparing • Classifying • Extended thinking Argue • Interpreting* • Identifying* • Analyzing* • Evaluating* • Describing • Explaining • Summarizing • Imperative Explain • Interpreting* • Identifying* • Analyzing* • Evaluating* • Describing • Explaining • Classifying • Comparing • Representing	**Mathematical Practice:** ("Interpretive") *1. Make sense of problems and persevere in solving them .* *2 . Reason abstractly and quantitatively .* These mathematical practices would most likely involve the language of: • Interpreting • Identifying • Analyzing • Describing • Comparing • Classifying • Extended thinking • Representing **Operations and Algebraic Thinking** (see below for more explanation)**:** These standards would most likely involve the language of: • Representing • Identifying • Describing • Defining • Comparing • Classifying • Analyzing	**Mathematical Practice:** ("Expressive") *3 . Construct viable arguments and critique the reasoning of others .* *4 . Model with mathematics .* *5 . Use appropriate tools strategically .* *6 . Attend to precision .* *7 . Look for and make use of structure .* *8 . Look for and express regularity in repeated reasoning .* These mathematical practices would most likely involve the language of:" • Identifying • Describing • Defining • Comparing • Classifying • Explaining • Extended thinking • Representing

NC English Language Development (ELD) Standards Alignment Study

North Carolina Department of Public Instruction

January 30 - 31, 2023

EdMetric Moodle
Username: **Your email**
Password: **Inside your table tent**

WIFI: *NCSU login & password on table, if needed.*

EDMETRIC

Welcome!

The NCDPI and EdMetric teams welcome you to this alignment study.

We appreciate your expertise and willingness to participate.

By participating, you support the development and improvement of the ELD assessments.

North Carolina Department of PUBLIC INSTRUCTION

North Carolina Department of Public Instruction
Office of Accountability and Testing

- Tammy Howard, Senior Director
- Kinge Mbella, Lead Psychometrician
- Thakur Karkee, Psychometrician
- Shannon Jordan, Section Chief
- Marshall Foster, Consultant
- Wendy Wooten, Consultant

Welcome from NC DPI

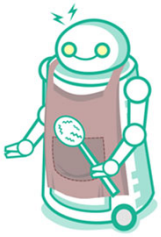
- Importance of the study for NC students
- Importance of your role in the study
- DPI staff roles and responsibilities

Substitute Pay, CEUs, and Reimbursements

- Substitute pay
  - Tereca Batts will be here tomorrow to pass out the form that needs to be completed and mailed in.
- Reimbursement (travel, hotel, meals)
  - Tereca Batts will be here tomorrow to answer questions and collect forms and receipts.
- CEUs – 2 days (1.6 CEUs)
  - CEU credit will appear on your NCEES transcript within one week. Participants without NCEES access should notify Elizabeth Nash (Elizabeth.Nash@dpi.nc.gov) to get a paper copy of your certificate.

Housekeeping

- ★ Cell phones
  - Put cell phones away.
  - Only use cellphones outside of this room
- ★ Non-disclosure agreements
- ★ Payments



Multilingual Students

- ➔ Students with home language(s) other than English who are learning in English at school.
- ➔ "...all children and youth who are, or have been, consistently exposed to multiple languages (WIDA, 2020).
- ➔ English language learners, English learners (ELs)
- ➔ Home language survey

Office of Civil Rights & U.S. Department of Education Guidance

"The obligation not to discriminate based on race, color, or national origin requires public schools to take affirmative steps to ensure that limited English proficient (LEP) students, now more commonly known as English Learner (EL) students or English Language Learners (ELLs), can meaningfully participate in educational programs and services, and to communicate information to EL parents in a language they can understand."

https://www.dpi.nc.gov/districts-schools/classroom-resources/academic-standards/standard-course-study/english-language-development/legislation-policy

EdMetric Team

Facilitators

- Dr. Anne Davidson
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- Dr. Karla Egan
- Dr. Stanley Rabinowitz

Program Managers

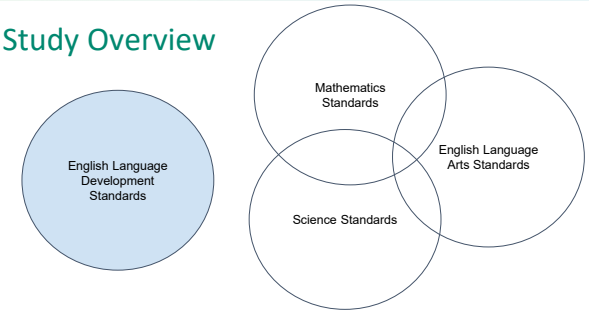
- Mark Phipps
- Amy Jones

English Learners

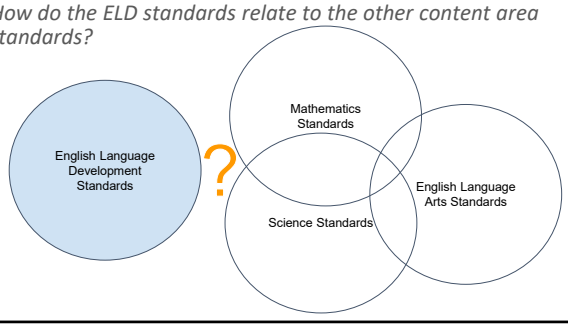
"All students who may be considered English Learners are assessed within 30 days of enrollment in the state. When a language minority student enrolls, he or she must be administered all four domains (Listening, Speaking, Reading, and Writing) of the WIDA Screener."

https://wida.wisc.edu/sites/default/files/id-placement/NC-ID-Placement-Guidance.pdf

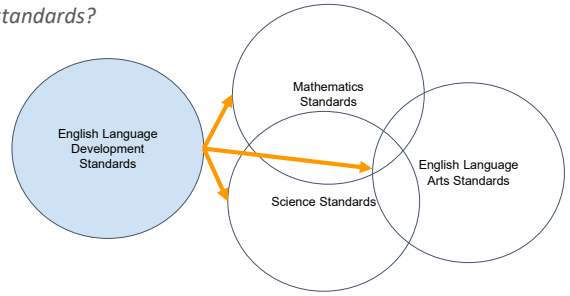
Study Overview



How do the ELD standards relate to the other content area standards?



How do the ELD standards relate to the other content area standards?



What's next?

- Get to know the Framework
- Practice using the Framework
- Begin using the study tools and materials
- Take a survey

Language Processes and Language Complexity Framework

Orientation and Training

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Overview

- *Language Processes and Language Complexity Framework*
  - Background
  - Purpose
  - Structure
  - Other Key Points
- Framework application
  - Language vs. cognitive processes
  - Discerning the language of focus
  - Decision rules

Objectives:

- Participants will become familiar with the background, purpose, and structure of the *Language Processes and Language Complexity Framework*
- Participants will practice applying the *Framework* to several examples

Background:

- Federal requirement
  - Title III of the No Child Left Behind Act (2001) and subsequent reauthorizations of the Elementary and Secondary Education Act
    - Alignment between state content standards and state English language development (ELD) standards
- Challenges to meeting this requirement
  - No procedures for examining alignment between standards of different content areas
  - No agreed-upon definition of "academic English language" (language demands of academic content)

Background:

- Need
  - The nature of the alignment between state content and ELD standards was unspecified in Federal requirements and related guidance
  - Focused evaluation of the **language** required to achieve grade-level content was needed
    - More specifically, a way to evaluate **academic English language** was needed

Purpose:

The *Language Processes and Language Complexity Framework*:

- Informs the design, development, and evaluation of academic English language demands in materials (e.g., standards, curricula, assessment)
  - Is applicable across content areas and grade levels
- Provides operational definitions of **academic English language** processes and language complexity
  - Offers a "common" way to talk about the **language used in and the language of the content areas**
    - Distinct from the cognitive demands of content

Structure: Language Processes

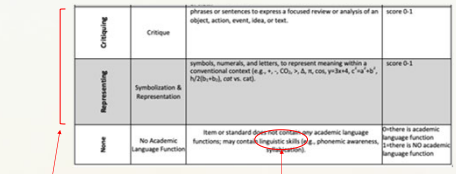
Language process **category**

Language process **subcategory**

Operational definition (focus on **language**)

Coding-related notes

Structure: Aspects of Language Processes



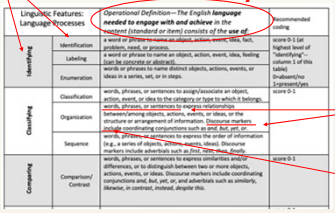
Academic language functions

Linguistic skills

Other Key Points: Language Processes

Although these processes seem like cognitive processes, they are not.

Remember these definitions—they focus on the **language** needed to engage with and achieve academic content.



Here's an example of how language is the focus in the definitions.

Note: "Include" indicates it is not a comprehensive list

Other Key Points: Language Processes

- The Framework simply reflects a general "progression" from Language Processes that consist of the use of a word or phrase to Language Processes that consist of the use of phrases or sentences
  - Exceptions are: Representing and No Academic Language Function (found at the end of the Linguistic Features: Language Processes table)
- The Framework is **not** intended to reflect a hierarchy or prioritization

Structure: Language Complexity

1 – Lower Complexity	2 – Medium Complexity	3 – Higher Complexity
Common, high-frequency words and phrases.	Some less common words and phrases, some technical words.	Specialized or technical words and phrases or context-specific words and phrases.
Words with mostly familiar construction (e.g., 's for possessive; s and es for plural)	Words with some less familiar/irregular construction	Words with use of irregular constructions (e.g., vowel changes)
No variation of tense.	Little to no variation in tense	Variation in tense
Semantically simple words and phrases; no use of figurative language, and/or idioms	Some use of semantically complex words and phrases; limited use of figurative language and/or idioms.	Semantically complex words and phrases (e.g., multiple-meaning words); use of figurative language, and/or idioms.
Short, simple sentences with limited modifying words or phrases, including simple adv. and yes/no questions.	Longer, mostly simple sentences, some compound or complex sentences. Some modifying words or phrases, including longer, mostly simple adv. and yes/no questions	Long, compound and complex sentences; longer sentences with modifying words, phrases, and clauses, multiple subordinate clauses, multiple modifiers, including complex adv. and yes/no question constructions and tag questions
Length ranges from a word to phrases or simple sentences. Short texts, or longer texts chunked into short sections (words, phrases, single sentences, very short paragraphs)	Length ranges from a word to phrases or one or more sentences. Longer texts with some chunking, longer series of sentences, longer paragraphs.	Length ranges from a word to phrases or one or more sentences to paragraphs to a passage. Long texts (long lists of words/phrases, a series of sentences, long paragraphs, multiple paragraph texts)
No/little variation in words and/or phrases in sentences/paragraphs; consistent use of language.	Some variation in words and/or phrases in sentences/paragraphs.	High variation in words and/or phrases in sentences/paragraphs.

Three levels of complexity

Elements that affect the complexity of spoken/written text

Questions? Thoughts?

Other Key Points: Language Complexity

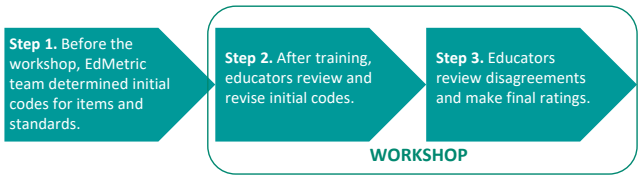
- Intended to guide/inform a holistic rating of language complexity
- Not intended to be used as a checklist

Framework Application:

Classifying	Classification	words, phrases, or sentences to assign/associate an object, action, event, or idea to the category or type to which it belongs.
	Organization	words, phrases, or sentences to express relationships between/among objects, actions, events, or ideas, or the structure or arrangement of information. Discourse markers include coordinating conjunctions such as *and, but, yet, or.*
	Sequence	words, phrases, or sentences to express the order of information (e.g., a series of objects, actions, events, ideas). Discourse markers include adverbials such as *first, next, then, finally.*

- Worked Examples
- Can you think of an example in your content area?
- As we break into our smaller groups, we'll get an opportunity to dig in and give it a try in your content area and grade level.

Study process overview



Workshop training and calibration

1. Training
2. Practice rating training items in panels
3. Readiness survey
4. Calibration Set
5. Individual Item Sets
6. Final Evaluation

Roles & Responsibilities

- ➔ Panelists
  - ◆ Panel Contribution
  - ◆ Table Leader
- ➔ Facilitators
  - ◆ Workshop Leads
  - ◆ Language Lead
  - ◆ Content Area Leads

Study Website

Username: Your Email
Password: Inside your table tent!

Questions?

info@edmetric.com

Multilingual Students…

- Languages and cultures are valuable resources to be leveraged for schooling and classroom life; leveraging these assets and challenging biases help develop multilingual learners' independence and encourage their agency in learning.
- Development of multiple languages enhances their knowledge and cultural bases, their intellectual capacities, and their flexibility in language use.
- Language development and learning occur over time through meaningful engagement in activities that are valued in their homes, schools, and communities.
- Language, social-emotional, and cognitive development are interrelated processes that contribute to their success in school and beyond.

WIDA (2020)

Multilingual Students…

- use and develop language
  - when opportunities for learning take into account their individual experiences, characteristics, abilities, and levels of language proficiency.
  - through activities which intentionally integrate multiple modalities, including oral, written, visual, and kinesthetic modes of communication.
  - to interpret and access information, ideas, and concepts from a variety of sources, including real-life objects, models, representations, and multimodal texts.
  - to interpret and present different perspectives, build awareness of relationships, and affirm their identities.

WIDA (2020)

Multilingual Students…

- draw on their metacognitive, metalinguistic, and metacultural awareness to develop effectiveness in language use.
- use their full linguistic repertoire, including translanguaging practices, to enrich their language development and learning.

WIDA (2020)

EDMETRIC

Module 2: *What criteria do we use to judge alignment?*

EDMETRIC

❖ Key criteria

1. Align by language processes
2. Align by language complexity

Key 1: Aligning language processes

In this module, we discuss how we assign language process codes to the standards.

EDMETRIC

❖ Language Processes

The English language needed to engage with and achieve in the content (standard or item) consists of the use of:

- ★ Identifying
- ★ Classifying
- ★ Comparing
- ★ Inquiring
- ★ Imperative
- ★ Describing
- ★ Defining
- ★ Explaining
- ★ Summarizing
- ★ Interpreting
- ★ Analyzing
- ★ Extended Thinking
- ★ Persuading
- ★ Critiquing
- ★ Representing

❖ Language Processes

What is the LANGUAGE a student must possess (in any modality)?

- ★ Identifying
- ★ Classifying
- ★ Comparing
- ★ Inquiring
- ★ Imperative
- ★ Describing
- ★ Defining
- ★ Explaining
- ★ Summarizing
- ★ Interpreting
- ★ Analyzing
- ★ Extended Thinking
- ★ Persuading
- ★ Critiquing
- ★ Representing

❖ ELA Standards

GRADE 1

WRITING STRAND: To be college and career ready, students should learn how to offer and support opinions/arguments, demonstrate understanding of a topic under study, and convey real and/or imagined experiences. Students learn that a key purpose of writing is to communicate clearly and coherently. The NC ELA Writing Standards emphasize the importance of writing routinely in order to build knowledge and demonstrate understanding. The complete writing process (from prewriting to editing) is clear in the first three writing standards. These standards define what students should understand and be able to do by the *end of each grade.*

Writing Standards (W.1)

Text Types, Purposes, and Publishing

W.1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide closure.

a. With guidance and support from adults, organize information and ideas around a topic to plan and prepare to write.

b. With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.

Level of Alignment Coding

❖ Math Standards

6-8 Mathematics

The Number System	
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	
NC.6.NS.1	Use visual models and common denominators to: • Interpret and compute quotients of fractions. • Solve real-world and mathematical problems involving division of fractions.
Compute fluently with multi-digit numbers and find common factors and multiples.	
NC.6.NS.2	Fluently divide using long division with a minimum of a four-digit dividend and interpret the quotient and remainder in context.
NC.6.NS.3	Apply and extend previous understandings of decimals to develop and fluently use the standard algorithms for addition, subtraction, multiplication and division of decimals.
NC.6.NS.4	Understand and use prime factorization and the relationships between factors to: • Find the unique prime factorization for a whole number. • Find the greatest common factor of two whole numbers less than or equal to 100. • Use the greatest common factor and the distributive property to rewrite the sum of two whole numbers, each less than or equal to 100. • Find the least common multiple of two whole numbers less than or equal to 12 to add and subtract fractions with unlike denominators.

Level of Alignment Coding

❖ Science Standards

Ecosystems

	Essential Standard	Clarifying Objectives	
Bio.2.1	**Analyze the interdependence of living organisms within their environments.**	Bio.2.1.1	Analyze the flow of energy and cycling of matter (water, carbon, nitrogen and oxygen) through ecosystems relating the significance of each to maintaining the health and sustainability of an ecosystem.
		Bio.2.1.2	Analyze the survival and reproductive success of organisms in terms of behavioral, structural, and reproductive adaptations.
		Bio.2.1.3	Explain various ways organisms interact with each other (including predation, competition, parasitism, mutualism) and with their environments resulting in stability within ecosystems.
		Bio.2.1.4	Explain why ecosystems can be relatively stable over hundreds or thousands of years, even though populations may fluctuate (emphasizing availability of food, availability of shelter, number of predators and disease).

Level of Alignment Coding

❖ Remember…

- ★ Language processes are not cognitive processes.
- ★ Standards can demand one or more than one language process.
- ★ The processes focus on the *language* needed to engage with and achieve academic content.

Questions?

info@edmetric.com

EDMETRIC

Module 3: *Language Complexity*

EDMETRIC

❖ Key criteria

1. Align by language processes
2. Align by language complexity

Key 2: Aligning language complexity

In this module, we talk about how standards align to the *language complexity* that a standard demands.

EDMETRIC

❖ Language Complexity

1 – Lower Complexity
2 – Medium Complexity
3 – Higher Complexity

❖ 1 – Lower Complexity

Lower Complexity is typified by language that is familiar, consistent, simple, concrete, literal, short, repetitive, direct, text-focused, organized, structured, and used familiar text features.

1 – Lower Complexity
Common, high-frequency words and phrases.
Words with mostly familiar construction (e.g., 's for possessive; s and es for plural)
No variation of tense.
Semantically simple words and phrases; no use of figurative language, and/or idioms
Short, simple sentences with limited modifying words or phrases, including simple wh- and yes/no questions.
Length ranges from a word to phrases or simple sentences. Short texts, or longer texts chunked into short sections (words, phrases, single sentences, very short paragraphs)
No/little variation in words and/or phrases in sentences/paragraphs; consistent use of language.
Repetition of key words/phrases/sentences reinforces information.
No/little abstraction; language reflects more literal/concrete information.
Little to no use of visual aids and graphics; graphics that are used for decoration or to increase motivation but are non-essential to key points; relevant text features used to highlight main points.
Language is organized/structured.
Familiar and simple text features (e.g., bold face, underline, headings).

❖ 2 – Medium Complexity

Medium Complexity is typified by language that is somewhat less common, sometimes technical, less familiar, somewhat irregular, sometimes presented with compound or complex text, sometime variable in the words/phrases used with similar meaning, introduces new or extended information, somewhat abstract, sometimes illustrated, mostly organized and structured, and mostly familiar text features.

2 – Medium Complexity
Some less common words and phrases, some technical words.
Words with some less familiar/irregular construction
Little to no variation in tense
Some use of semantically complex words and phrases; limited use of figurative language and/or idioms.
Longer, mostly simple sentences, some compound or complex sentences. Some modifying words or phrases, including longer, mostly simple wh- and yes/no questions
Length ranges from a word to phrases or one or more sentences. Longer texts with some chunking, longer series of sentences, longer paragraphs.
Some variation in words and/or phrases in sentences/paragraphs.
Repetition of key words/phrases/sentences introduces new or extends information.
Some abstraction; illustrative language is used; language is used to define/explain abstract information
Visual aids, graphics and/or relevant text features use to highlight main points or reinforce critical information/details.
Language is mostly organized/structured but may contain some ill-structured text.
Mostly familiar text features (e.g., bulleted lists, text boxes, glossary, index, sidebars)

❖ 3 – Higher Complexity

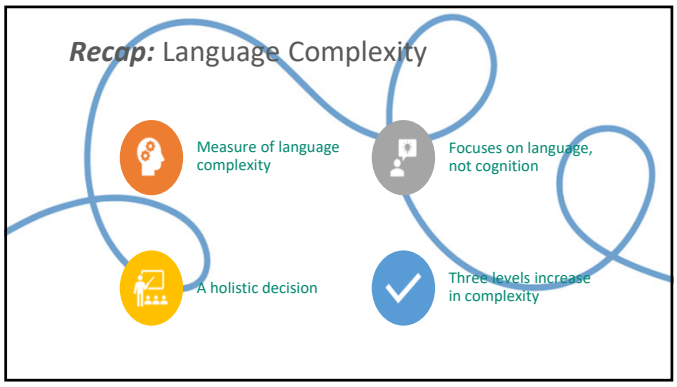
Higher Complexity is typified by language that is specialised, technical, context-specific, irregularly constructed, varies in tense, semantically complex, long, compound sentence structures, new or extended information, abstract, illustrative, reference to visuals or graphics, may or may not be organized and structured, and may use less familiar text features.

3 – Higher Complexity
Specialized or technical words and phrases or context-specific words and phrases.
Words with use of irregular constructions (e.g., vowel changes)
Variation in tense
Semantically complex words and phrases (e.g., multiple-meaning words); use of figurative language, and/or idioms.
Long, compound and complex sentences; longer sentences with modifying words, phrases, and clauses, multiple subordinate clauses, multiple modifiers, including complex wh- and yes/no question constructions and tag questions
Length ranges from a word to phrases or one or more sentences to paragraphs to a passage. Long texts (long lists of words/phrases, a series of sentences, long paragraphs, multiple-paragraph texts)
High variation in words and/or phrases in sentences/paragraphs.
Repetition of key words/phrases/sentences introduces new or extends information and/or abstract ideas.
Some abstraction; language may or may not be used to define/explain abstract information; illustrative language may or may not be used; technical words/phrases are used
Visual aids, graphics and/or relevant text features synthesizes critical information/details.
Language may or may not be organized/structured
Some less familiar text features (e.g., pronunciation keys, maps, overlays)

❖ Remember…

★ The language complexity rubric can be applied to different, educational materials; we are applying to *content standards*.

★ The levels are intended to guide/inform a *holistic* rating of language complexity, and not intended to be used as a checklist.


Recap: Language Complexity
Measure of language complexity
Focuses on language, not cognition
A holistic decision
Three levels increase in complexity


Questions?
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Module 4. *Decision Rules*

Summary

Collectively, we will review each standard for
➔language process(es)
➔language complexity.

Decision rules allow for greater consistency in the application of the *Framework* codes.

DR #1 - Be consistent

Be consistent if you notice that some standards are similar.

Example:

When students are asked to "do" something (produce a product), apply the same codes consistently across the standards.

*Note that standards are grouped by standard, across grades levels and assessment type.

DR #2 - More than 3 processes

Some standards (e.g., ELA at the higher grade levels) encompass multiple language processes in one statement.

Select the most important three, assign them to the three fields (primary, secondary, tertiary).

* If you need to, add the other processes to the Notes field.
* See DR #3 for situations with no priority.

DR #3 - No priority

If there is no priority to the processes (i.e., they are equally represented in the standard), you can note this in the Notes field as "no priority."

Example:

Primary=*Describe*; Secondary=*Summarize*; Notes="no priority."

DR #4 - *Any* code

The code *Any* should be used when all or any of the language processes apply.

Examples:

- In standards that say, "develop coherence and cohesion," code *Any*.
- General Education, Grade 5 ELA
  (RI.5.10) By the end of grade 5, read and understand informational texts at the high end of the 4-5 text complexity band proficiently and independently for sustained periods of time. Connect prior knowledge and experiences to text.
  Coded: Any

*Note that, if the language process code is *Any*, then any complexity level would also apply.

DR #5 - *None* code

The standard does not contain a language process. It may contain linguistic skills (e.g., phonemic awareness, syllabication, concept of print).

Examples:

- General Education, Grade 1, ELA
  (L.1.1) Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; demonstrate proficiency within the K-1 grammar continuum.

  Coded: None

- General Education, Grade 8, Math
  (NC.8.F.1) Understand that a function is a rule that assigns to each input exactly one output.
  • Recognize functions when graphed as the set of ordered pairs consisting of an input and exactly one corresponding output.
  • Recognize functions given a table of values or a set of ordered pairs.

  Coded: None

DR #6 - No process, no complexity

If there is no language process, do not code language complexity.

Example:

Extended Standards, Grade 4, Science
(EX.4.E.1.1) Use a thermometer to record temperature changes, during the day, from day to day, and season to season.

Coded: None, None

DR #7 - "By" phrases

If the standards includes "by" (e.g., "interpret…by _____"), the "by……" phrases can indicate that process or processes other than what is stated (e.g., *Interpreting*) are in use: use language processes that best match the academic language demand to the student.

Example:

General Education standard, Grade 1, ELA
(L.1.5.b) Define words by category and by one or more key attributes.

Coded: Identifying, Classifying

DR #8 - "With guidance and support" (ELA)

If the standards states "with guidance and support," include the processes you would code regardless of the guidance/support level.

Students will still be producing or understanding language processes there even if it is in response to prompting and support.

Example:

Extended Standards, Grade 1, ELA
(L.1.5.c) With guidance and support, demonstrate emerging understanding of word relationships. c. Demonstrate an understanding of present tense verbs.

Coded:

Summary

Be consistent.
More than three processes, use Notes.
Priority

Questions?

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Module 5: *Calibration & Validation*

Standard Batches

- Calibration
  - 30 standards
  - Rate independently
  - Discuss instances where the majority of the group disagrees
- Validation
  - 30 standards
  - Rate independently
  - Discuss instances where the majority of the group disagrees
- Individual Items
  - 20-30 standards rated independently

Calibration

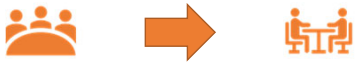
Round-1 Results

Panel disagreements for each standard

Round-2 Ratings

Apply discussion to second round of ratings

Calibration

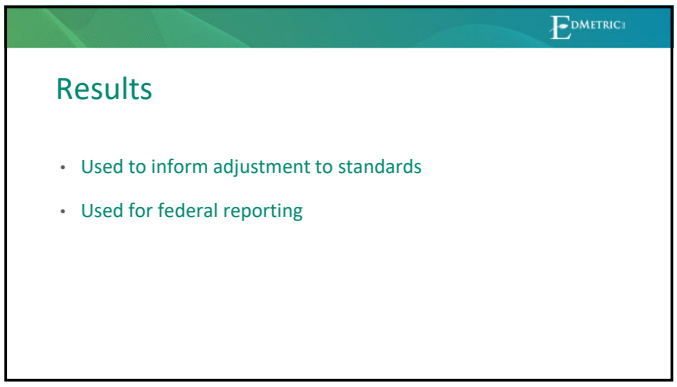


Round-2 Results

Remaining disagreements for each standard

Final Ratings

Apply discussion to third round of ratings


EDMETRIC
Results
• Used to inform adjustment to standards
• Used for federal reporting

Day-2 Orientation

Welcome to Day 2!

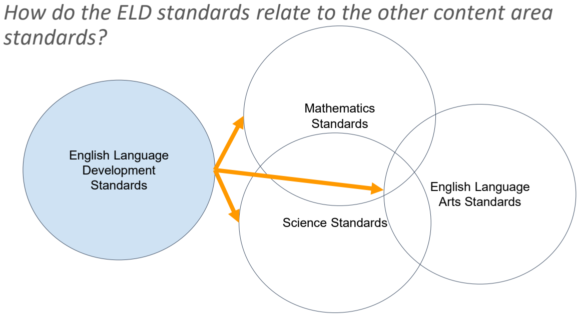
- DPI here to provide help on reimbursement forms.
  - Substitute pay
  - Reimbursement (travel, hotel, meals)
  - CEUs - 2 days (1.6 CEUs)

Activities

1. Finish Calibration and Validation Sets
2. Rate Individual Standards (Individual Tab)
3. Achievement Level Descriptors (ALDs) Activity

Achievement Level Descriptors (ALDs)

How do the ELD standards relate to the other content area standards?



Achievement Level Descriptors (ALDs)

➔ *What do the content area ALDs require in terms of language demands?*

Achievement Level	Meets On-Grade-Level Proficiency Standard	Meets Career-and-College Readiness Standard
Level 5	Yes	Yes
Level 4	Yes	Yes
Level 3	Yes	No
Not Proficient	No	No

ALD Activity

- Review 2 ALDs for the grade(s) assigned in your content area
  - (1) Level 3 - On-Grade-Level Standard
  - (2) Level 4 - College-and-Career-Ready Standard
- Ask, ***Do you find evidence of academic language demand in terms of language processes?*** (Yes/No)
- Ask, \ mfy%nx%ymj%wfslj%tk%qfslzflj%htr uqj}ny~D (High & Low)
- Discuss with your panel
- Table leader record the panel’s consensus decisions

ALD ACTIVITY

1. Click here
2. Find your panel’s tab
3. Use the linked ALD documents
4. Identify evidence of language processes within Levels 3 & 4
5. Identify the range of language complexity
6. Discuss with your panel
7. Table leader record the panel’s consensus decision

Before you go…

- Complete all activities
- Complete the Final Evaluation
- Log out of the workshop website

Thank you for your participation!

Technology Check In

NC ELD Alignment Study

* Required

1. Full Name (First, Last) *

2. I understand my responsibility to maintain strict security and confidentiality while viewing NC materials. *

   I will not disclose or comment on the content of any secure material presented during the workshop.

   I will not disclose or comment on the workshop process or its results.

   Mark only one oval.

   - ◯ Yes
   - ◯ No

3. I successfully logged into Moodle and was able to access the Technology Check In folder. *

   Mark only one oval.

   - ◯ Yes
   - ◯ No

Readiness Survey

NC ELD Standards Study

* Required

Please consider each statement below. Choose the level of agreement or disagreement you have with each statement.

1. Please select your workshop panel *

Mark only one oval.

- ELA K-4
- ELA 5-8
- ELA HS
- Math K-4
- Math 5-8
- Math HS
- Science K-4
- Science 5-8
- Science HS

2. The training session provided me a clear overview of the study process. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

3. I understand the goals of the study workshop. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

4. I understand my role in the workshop. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

5. I understand what *academic language* means in terms of *language processes* and *language complexity*. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

6. I understand how to rate on the online worksheet. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

7. I understand how I will (1) rate the items independently and (2) work with my panel to resolve different ratings. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

8. I understand the purpose of each type of rating. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

9. The 10-standard training set was helpful to me. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

10. I understand that I can request additional training at any time throughout the workshop. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

11. Before I begin working independently, I would like additional training and/or to ask additional questions regarding the alignment process. *

Mark only one oval.

- Yes
- No

If you answered "No" to the previous questions, then please answer the next question.

12. Please list your question or provide your name and panel here.

Final Evaluation

NC ELD Standards Study

* Required

1. Select your workshop panel: *

Mark only one oval.

- ELA K-4
- ELA 5-8
- ELA HS
- Math K-4
- Math 5-8
- Math HS
- Science K-4
- Science 5-8
- Science HS

Consider each statement below. Choose the level of agreement or disagreement that best fits your perspective.

2. The workshop training and practice prepared me for the assigned tasks. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

3. I understood how to make rating decisions. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree

4. I understood the purpose of having multiple rounds of rating. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree
- ◯ Other: _____

5. I understood how to use the workshop website on Moodle and the linked materials. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree

6. I rated my content independently. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

7. I understood the purpose of discussing where my panel disagreed. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

8. I understood how to rate the Calibration set. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree
- Other: _____

9. I understood how to rate the Validation set. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

10. I believe that others listened to my opinions during our discussion of ratings. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

11. I understood my role in the workshop. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

12. I understood how to assign language complexity levels. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

13. I understood how to use the language processes. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

14. I understood how to use the rating tool. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

15. I had enough time to rate all of the content assigned to me. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

16. I would be able to defend why I rated each standard as I did. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

17. I felt the group discussion was meaningful. *

Mark only one oval.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

18. Participating in the workshop increased my understanding of NC Content Standards and ELD Standards. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree

19. The work space was appropriate to facilitate our work. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree

20. The workshop's organization made sense to me. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Disagree
- ◯ Strongly Disagree

Demographic Information

21. What type of community do you represent? *

Mark only one oval.

- Urban
- Suburban
- Town
- Rural

22. What title best describes your role? *

Mark only one oval.

- English Learner Teacher
- General Education Classroom Teacher
- Special Education Classroom Teacher
- Building Administrator
- District Administrator
- Curriculum Specialist
- Other Educator

23. How many years have you served in this role? *

Mark only one oval.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- >10

24. How many years have you served in North Carolina schools? *

Mark only one oval.

- 1-2
- 3-5
- 6-10
- 11-15
- 16-20
- 21-25
- >25

25. Please check all of the following in which you have experience: *

Check all that apply.

- [ ] ELA Instruction
- [ ] Mathematics Instruction
- [ ] Science Instruction
- [ ] Reading or Literacy Intervention/Support
- [ ] Instruction of Students with Significant Cognitive Disabilities
- [ ] Instruction of English Learners
- [ ] Instruction of English Learners with Disabilities
- [ ] Other: _____

26. With what gender do you identify? *

Mark only one oval.

- ◯ Prefer not to say
- ◯ Female
- ◯ Male
- ◯ Non-binary

27. Are you of Hispanic origin? *

Mark only one oval.

- ◯ Prefer not to say
- ◯ Yes
- ◯ No

28. With what group do you identify? *

Mark only one oval.

- Prefer not to say
- American Indian or Alaska Native
- Asian
- Black or African-American
- Native Hawaiian or Other Pacific Islander
- White or Caucasian
- Multiple Races

Your Turn

29. What did you appreciate the most about the workshop?

30. What would you suggest to us to inform future workshops like this one?

31. Anything else?

32. We appreciate you! Thank you for your participation!