LAS Links Alignment to WIDA Standards

Spring 2018

The findings in this study are those of the independent reviewing team and Data Recognition Corporation.

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EXECUTIVE SUMMARY

An alignment study was conducted for the LAS Links assessment and the WIDA Consortia English Language Development Standards. Eight reviewers analyzed WIDA Standards and the LAS Links assessment according to Dr. Norman Webb's alignment methodology. To appropriately align the LAS Links assessment to the WIDA Standards, all elements of the standards were included. Two alignment studies were conducted to account for the interaction between the domains, standards, and levels: LAS Links to WIDA Standards and LAS Links to WIDA Levels.

Data on the alignment of the LAS Links assessment were collected from the eight reviewers following the methodology developed by Norman Webb, as modified by H. Gary Cook (2007). The data collected were then analyzed to determine whether the LAS Links assessment met the criteria established by the alignment model. The major difference between the Webb methodology and the modification by Cook is the substitution of Linguistic Difficulty Level (LDL) for Webb's Depth of Knowledge (DOK). In addition, this alignment study is to the new 2012 Amplification of the WIDA Standards, while Cook's 2007 ACCESS for ELLs to WIDA Standards alignment study was to the previous 2004 WIDA Standards.

The reviewers began the alignment process by first reviewing and analyzing the WIDA Standards and then the LAS Links operational items. Taken as a whole, the alignment of the LAS Links items to the WIDA Standards is very strong and is similar to the alignment results shown in Cook's 2007 study of ACCESS for ELLs and WIDA Standards.

Given the results, the use of LAS Links as a tool for progress monitoring and student attainment of English language proficiency is recommended and would help teachers and administrators assess their students well with regard to the WIDA Standards and Levels. This report will provide an overview of the studies and results of LAS Links alignment to the WIDA Standards and Levels.

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LAS LINKS ASSESSMENT SYSTEM

In U.S. public schools, one in ten students receives English language services—and that number continues to grow. Additionally, other students may also need additional language instruction to meet academic proficiency targets. LAS Links is an integrated suite of English language proficiency assessments and instructional tools designed to strengthen an English language learning (ELL) program.

The new LAS Links forms and placement tests correspond to the goals and objectives of states' rigorous content standards in language arts, mathematics, and science. For initial placement of students, LAS Links provides the option of using a short placement test or a full form that provides scale scores and proficiency levels. The LAS Links suite of assessments measures social and academic language in all four domains (Listening, Speaking, Reading, and Writing) for the major academic strands:

- Social, Intercultural, and Instructional
- Language Arts, Social Science, and History
- Mathematics, Science, and Technical Subjects

LAS Links uses realistic illustrations, reading passages set in context, and culturally relevant test content to engage, challenge, and encourage students throughout the learning process. Additionally, LAS Links' newest forms correspond to the needs of the College and Career Readiness Standards with academically relevant content.

LAS Links K–12 assessments are grade-level appropriate and available in five grade bands:

- Primary (K–1)
- Early Elementary (2–3)
- Elementary (4–5)
- Middle School (6–8)
- High School (9–12)

There is also a Pre-K assessment available, but it was not used in this study.

The LAS Links assessment forms C and D consist of multiple-choice items, short constructed-response items, and extended constructed-response items. The table below provides a general overview of the number and type of items that are contained in the LAS Links assessment. The number of items varies by grade band, as demonstrated by the use of ranges for the number of items.

	Listening	Reading	Speaking	Writing
Number of Items	20–23	26–30	14–18	16 or 17
Type of Items	MC	MC and SCR	SCR and ECR	MC, SCR, and ECR

There are some differences between the WIDA assessments and the LAS Links assessments that should be noted here. For the Writing domain, LAS Links includes both multiple-choice and extended constructed-response items, and in Reading, LAS Links includes short constructed-response items. These differences do not impact the alignment of the LAS Links assessment to the WIDA Standards in any significant manner.

ALIGNMENT STUDY: APPROACH AND PROCESS

Overview of the Alignment Study
The alignment study of the WIDA Standards and the LAS Links assessment was conducted in Minneapolis, Minnesota, during the week of February 26, 2018. The study involved a review of the LAS Links assessment for alignment to the WIDA Standards. This alignment was conducted for all four skill domains: Listening, Speaking, Reading, and Writing.

Alignment Study Participants
For the alignment study, eight alignment experts (six at each grade band) were engaged in the study. These subject matter experts have expertise in English language proficiency assessment and instruction and are familiar with the LAS Links assessment and the WIDA Standards.

Alignment Methodology
As stated in the executive summary of this report, the LAS Links to WIDA Standards alignment study was based on the work of Dr. Norman Webb, Wisconsin Center for Educational

Research, University of Wisconsin–Madison. In his work, Webb states that the alignment of the standards or objectives for student learning with tests for measuring students' attainment of these expectations is an essential component for an effective standards-based education system. The alignment study was designed to model Webb's procedures and Webb's definition of alignment (Webb, 2005, 2007). The definition is as follows:

> *Alignment is defined as the degree to which expectations and assessments are in agreement and serve in conjunction with one another to guide the system toward students learning what they are expected to know and do. As such, alignment is a quality of the relationship between expectations and assessments and not a specific attribute of either of these two system components. Alignment describes the match between expectations and assessment that can be legitimately improved by changing either student expectations or assessments. Seen as a relationship between two or more system components, alignment can be determined by using the multiple criteria described in detail in a National Institute of Science Education (NISE) research monograph, Criteria for Alignment of Expectations and Assessments (Webb, 1997).*

The Webb methodology was modified by Cook (2007) for use with English language learner assessments, and this study was conducted using his modification. The primary difference between the Webb model and the Cook modification is the substitution of the Linguistic Difficulty Level (LDL) for Webb's Depth of Knowledge (DOK) and some adjustments to the criteria for the various calculations of alignment indices. This study holds closely to the Cook modification.

WEBB'S ALIGNMENT MODEL AND MODIFICATIONS

Webb's alignment model as modified by Cook (2007) is based on four criteria: Linguistic Difficulty Level Consistency, Categorical Concurrence, Range-of-Knowledge Correspondence, and Balance of Representation. Reviewers used these four criteria to assess the content agreement between the WIDA Standards and LAS Links. For each alignment criterion, an acceptable level was defined by what would be required to ensure that a student had met the standards. A brief description of the alignment criteria is provided below. Additional information can be found in the section of this report labeled Alignment Criteria.

Linguistic Difficulty Level Consistency is a metric representing the percentage of items at the Linguistic Difficulty Level (LDL). This measure is a replacement for Webb's Depth of Knowledge statistic. In this instance, LDL refers to linguistic instead of cognitive complexity. Each language proficiency standard is given an LDL of 1, 2, or 3. Level 1 stands for elementary linguistic features, level 2 represents standard linguistic constructions, and level 3 refers to complex linguistic formulations. During the alignment process, LDLs are also assigned to each test item. The purpose is to identify the connection between standards' LDLs and test items' LDLs. If an item is coded above or below a standard's LDL, little information would be available about how that item samples students' behavior relative to the linguistic difficulty of that standard. The main idea of assessing ELL students is to help identify and monitor linguistic progress. If items do not match the linguistic levels of the standards, the ability to properly evaluate students is limited.

Categorical Concurrence refers to how well items match or cover standards. To evaluate this area, the statistic Categorical Concurrence is used. Categorical Concurrence is calculated by averaging the number of items assigned to specific English language proficiency standards by raters, or educators who participate in the alignment process. Raters select specific standards for each item on the tests being rated. The number of coded items is then averaged across raters and reported as Categorical Concurrence. This statistic is a proxy for the average number of items raters believe address specific standards. It is important to note that some items can address more than one standard, and raters are allowed to code accordingly.

Range-of-Knowledge Correspondence refers to how well a test's items cover a set of standards. Webb states that "this criterion is met if a comparable span of knowledge expected of students by a standard is the same as, or corresponds to, the span of knowledge that students need in order to correctly answer the assessment items/activities" (Webb, 2007).

Balance of Representation is the degree to which one standard or group of standards is given more emphasis on a test than another standard or group of standards. An index (Webb, 2002) is used to judge the distribution of the test items.

The Webb model has been used extensively in many alignment studies throughout the country and has been recommended for use by the Council of Chief State School Officers (CCSSO). The alignment criteria in the Webb model also adhere to the guidelines specified in the United States Department of Education's Standards and Assessments peer review documents, including the Annotated Assessment Peer Review Guidance provided on November 20, 2015.

The Webb model has been used extensively in many alignment studies throughout the country and has been recommended for use by the Council of Chief State School Officers (CCSSO).

ALIGNMENT STUDY PROCEDURE

As stated earlier, eight individuals were assembled to serve as participants in this study of the alignment of the LAS Links assessment to the WIDA Standards and Levels. For the alignment of LAS Links to WIDA Standards, all elements of the standards are included. The LAS Links to WIDA Standards alignment study is modeled after Cook's 2007 alignment study report of ACCESS for ELLs and WIDA Standards. Thus, two studies were conducted to account for the interaction between standards, domains, and levels. The first study addressed the five academic content standards within each domain. The second study addressed the five language proficiency levels within each domain. A summary of the overall process is shown below.

ALIGNMENT STUDY PROCESS

Step 1: Determining the Linguistic Difficulty Level (LDL)
Reviewers individually determined the LDL for each WIDA Standard. They discussed their LDL ratings to reach a group consensus.

Step 2: Taking the test
Reviewers reviewed the test and recorded their comments about the test items.

Step 3: Determining what each test item measured and the LDL for each test item

Step 3.1
Using the first three test items, reviewers independently determined what each item measured by assigning it to a primary standard (and a secondary standard and tertiary standard, if applicable). A group discussion took place; however, reaching consensus on what each item measured was not required.

Step 3.2
Reviewers independently determined the LDLs of the first three items. Reviewers were instructed to code only one LDL (1, 2, or 3) for each of the three items. Reviewers also independently noted any source of challenge for the first three items. A group discussion took place; however, reaching consensus on the LDLs of the first three items was not required.

Step 3.3
Reviewers continued to independently determine the primary standard (and the secondary standard and tertiary standard, if applicable) for the remainder of the test items.

Step 3.4
Reviewers independently determined the LDL for the remainder of the test items. Again, the reviewers were instructed to code only one LDL for each test item.

Throughout the alignment process, reviewers independently noted any source of challenge for each test item and provided written comments as necessary.

Step 4: Summarizing the alignment criteria of test items
Once reviewers determined the primary standard (and secondary standard and tertiary standard, if applicable) for each test item and the LDL for each test item, they analyzed the entire test for LDL Consistency, Categorical Concurrence, Range-of-Knowledge Correspondence, and Balance of Representation.

Step 5: Answering a debriefing questionnaire
Reviewers independently shared feedback about the process, the test items, and the standards.

The Electronic Data Capture Tool

The electronic data capture tool was used in the alignment study. The tool was designed specifically to facilitate the gathering of independent reviewers' judgments. The tool and its reports made it possible to gauge in a timely manner the alignment, based on Webb's alignment model, between the WIDA Standards and the items on the LAS Links assessment. In addition, the tool also provided opportunities for reviewers to provide additional information regarding items, including providing comments related to source of challenge. The item-by-objective or standard codings by reviewers were then aggregated and analyzed.

Alignment Criteria

Reviewers assessed specific criteria related to the content alignment between the WIDA Standards and LAS Links test items. The four criteria receiving major attention were Linguistic Difficulty Level (LDL) Consistency, Categorical Concurrence, Range-of-Knowledge Correspondence, and Balance of Representation. For each alignment criterion, an acceptable level was defined by what would be required to ensure that a student had met the standards. This study is based on the criteria established by Cook (2007) and is displayed below.

Domain by Level Alignment Criteria

Alignment Areas		Alignment Criteria		
		Listening, Speaking, Reading, Writing		
		NO	WEAK	YES
Categorical Concurrence*	Level 1	<2	≥2	≥3
	Level 2	<4	≥4	≥6
	Level 3	<7	≥7	≥9
	Level 4	<4	≥4	≥6
	Level 5	<2	≥2	≥3
LDL Consistency		<40%	≥40%	≥50%
Range-of-Knowledge Correspondence		<20%	≥20%	≥30%
Balance of Representation		<0.6	≥0.6	≥0.7

*Kindergarten criteria for the levels is YES ≥3, WEAK ≥2, and NO <2 for all domains.

Domain by Standard Alignment Criteria

Alignment Areas	Alignment Criteria		
	Listening, Speaking, Reading, Writing		
	LIMITED	MODERATE	STRONG
Categorical Concurrence	<4	≥4	≥6
LDL Consistency	<40%	≥40%	≥50%
Range-of-Knowledge Correspondence	<20%	≥20%	≥30%
Balance of Representation	<0.6	≥0.6	≥0.7

Categorical Concurrence for the domain by level alignment is a floating criterion. Level 3 is set at the highest criterion of 9 items, as the highest number of items would be expected at this level to discern language proficiency. The criterion adjusts downward to 6 items for levels 2 and 4, as a significant amount of items are still required at these levels to discern language proficiency. The criterion for levels 1 and 5 is set at 3 items minimum. Note that kindergarten has the same alignment criteria for all five levels.

The domain by standard alignment is more consistent with the traditional Webb alignment criteria. For strong Categorical Concurrence, 6 or more items are needed to align. Using Webb's model, the number of items used to determine Categorical Concurrence (6 for this study) is based on estimating the number of items that could produce a reasonably reliable subscale for estimating students' mastery of content on that subscale.

SUMMARY OF RESULTS

The following charts depict the robustness of the alignment of LAS Links with both the WIDA Standards and the WIDA Levels. It is readily apparent that, although LAS Links development focused on language acquisition by using both national and international English language standards and not specifically the WIDA Standards and Levels, LAS Links is very well aligned to the WIDA model as defined by the 2012 standards and levels.

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Alignment to WIDA Standards

Figure 1 shows the Listening alignment to the WIDA Standards 1 through 5 across all the LAS Links grade bands. It shows a strong alignment across all alignment indices for the Listening domain. Recall that, within each of the four alignment dimensions, there are three classifications for an item: Strong, Moderate, and Limited. Also, the five standards for WIDA are the following:

- Standard 1: Social and Instructional Language
- Standard 2: The Language of Language Arts
- Standard 3: The Language of Mathematics
- Standard 4: The Language of Science
- Standard 5: The Language of Social Studies
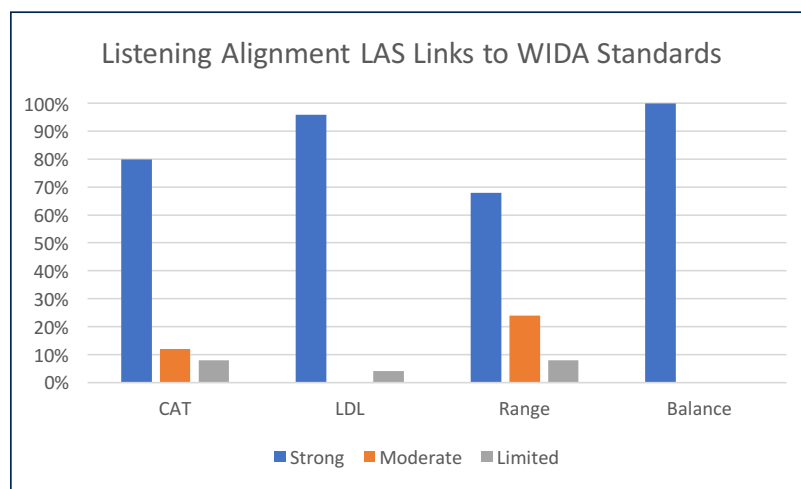
Figure 1. Alignment of LAS Links Listening with WIDA Standards 1 through 5.

Figure 2 shows the Reading alignment to the WIDA Standards 1 through 5 across all the LAS Links grade bands and indicates a strong alignment between the two.
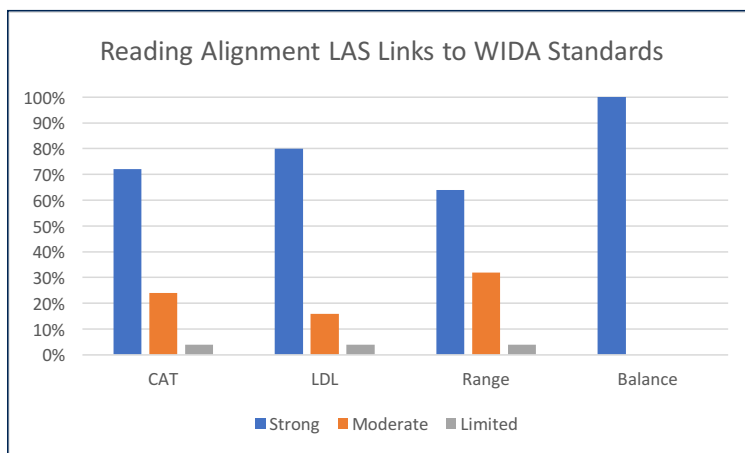

Figure 2. Alignment of LAS Links Reading with WIDA Standards 1 through 5.

Figure 3 shows the Speaking alignment to the WIDA Standards 1 through 5 across all the LAS Links grade bands and shows a strong alignment between the LAS Links assessment and the WIDA Standards.
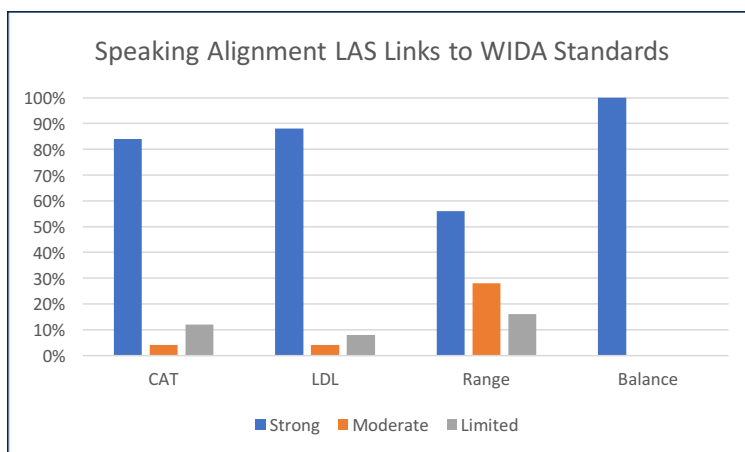

Figure 3. Alignment of LAS Links Speaking with WIDA Standards 1 through 5.

Figure 4 shows the Writing alignment to the WIDA Standards 1 through 5 across all the LAS Links grade bands. As indicated, the alignment between the LAS Links Writing assessment and WIDA Standards is strong.
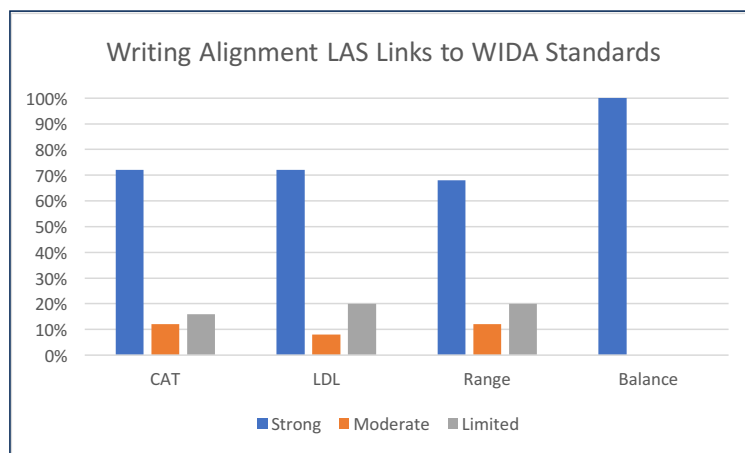

Figure 4. Alignment of LAS Links Writing with WIDA Standards 1 through 5.

Alignment to WIDA Levels

WIDA also assigns language proficiency levels in the standards. Following the Cook (2007) alignment study, DRC also aligned the LAS Links assessment to the WIDA Levels. Using the same four alignment criteria of Linguistic Difficulty Level Consistency, Categorical Concurrence, Range-of-Knowledge Correspondence, and Balance of Representation, items were evaluated for alignment to the five levels used by WIDA:

- Level 1: Entering
- Level 2: Emerging
- Level 3: Developing
- Level 4: Expanding
- Level 5: Bridging

This alignment used the three criteria designations of Yes, Weak, and No, as was done in the Cook study. The following figures depict alignment across grade bands for LAS Links. They indicate a strong alignment between the LAS Links assessment and the WIDA Levels.
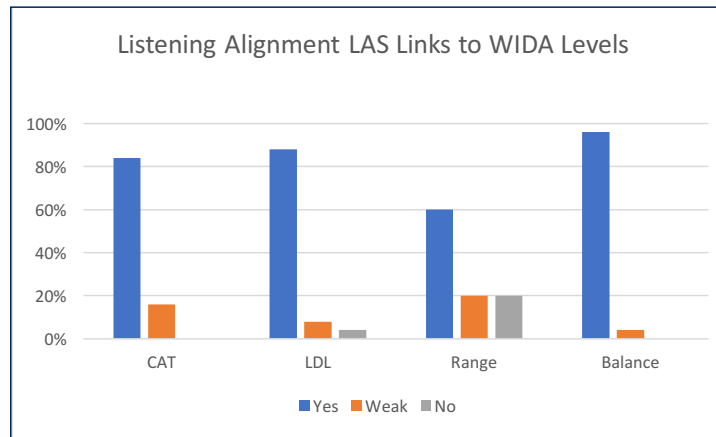

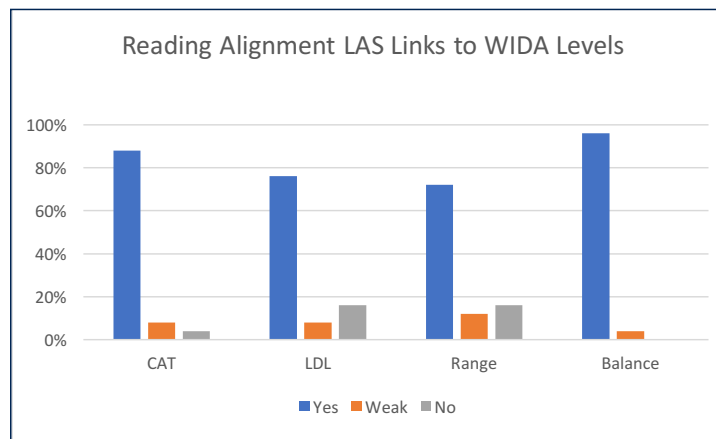*Figure 5. Alignment of LAS Links Listening with WIDA Levels 1 through 5.*

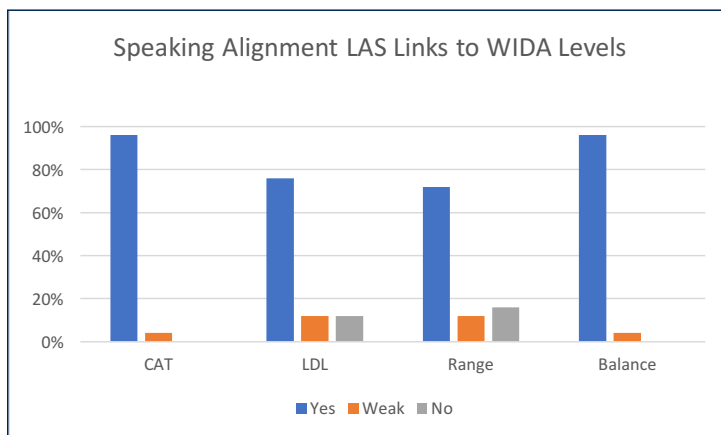*Figure 6. Alignment of LAS Links Reading with WIDA Levels 1 through 5.*

Speaking Alignment LAS Links to WIDA Levels

Figure 7. Alignment of LAS Links Speaking with WIDA Levels 1 through 5.

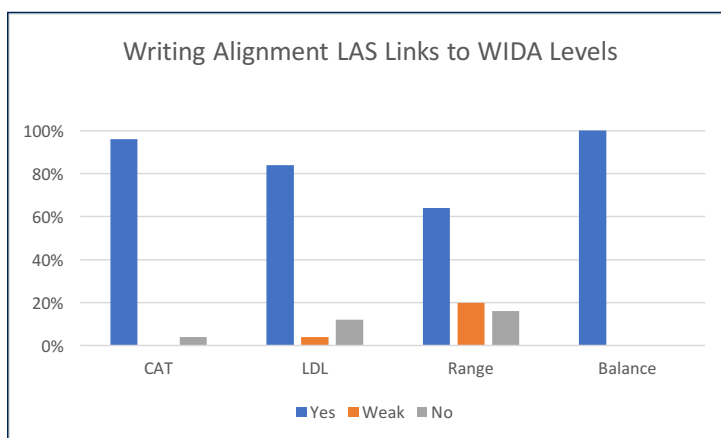**Writing Alignment LAS Links to WIDA Levels**

Figure 8. Alignment of LAS Links Writing with WIDA Levels 1 through 5.

LAS Links may be used multiple times in an academic year to monitor progress and student growth and, with appropriate research methods, allows some prediction to WIDA results.

CONCLUSION

This report provides a summary of the alignment of the LAS Links assessment to the WIDA Standards and Levels. It clearly shows that, although LAS Links was developed using the Common European Framework of Reference for Languages, Teaching English to Speakers of Other Languages, and College and Career Readiness Standards, the LAS Links assessment aligns very well with both the WIDA Standards and Levels. This result allows users of LAS Links to utilize the LAS Links Assessment System to gauge and monitor student progress with respect to each student's English language development and proficiency.

LAS Links may be used multiple times in an academic year to monitor progress and student growth and, with appropriate research methods, allows some prediction to WIDA results. In addition, the LAS Links assessment utilizes more and varied types of items to assess students and provide usable classroom information to help inform instruction.

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