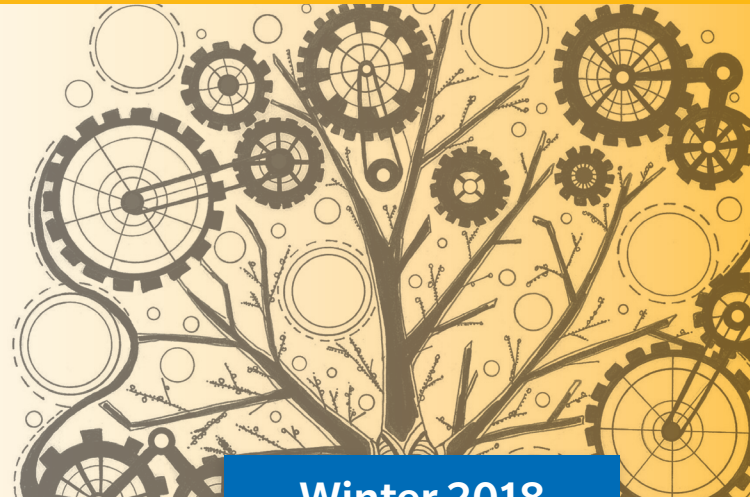


Cognitively SPEAKING



Winter 2018

CogAT[®] Introducing Form 8

We are excited to announce the introduction of **CogAT**[®] Form 8, an equivalent form to **CogAT** Form 7. Form 8 preserves all of the exciting new features of Form 7 and provides new opportunities for assessment. Just like Form 7, Form 8 measures three distinct domains of reasoning in verbal, quantitative, and nonverbal symbol systems.

Bilingual Primary Levels

An important new feature of both Forms 7 and 8 is the development of the primary bilingual **Levels 5/6–8** (grades K to 2). These primary levels **were completely revised in Form 7 to be a bilingual primary assessment** using picture-based item formats and reducing the language load across all subtests. Each battery now contains three different subtests to provide three different approaches to reasoning in each domain. Each subtest blends seamlessly with its counterpart at the upper levels (grades 3 to 12) to enhance continuity across the vertical scale and the student testing experience. At grades K–2 (Levels 5/6–8), each subtest is bilingual/EL-friendly. With one exception, all subtests use only pictures with language used only in the directions. Both English and Spanish directions and online audio are available and options exist for translating the directions into other languages.

Because language abilities are so important for success in school, an **optional** Sentence Completion subtest is included in the Form 7 and 8 Verbal Battery for levels 5/6 to 8 to measure reasoning with language constructs for students who speak English or Spanish. This subtest follows a traditional format in which the teacher reads aloud a question and the student chooses the picture that

best answers the question. As with the other verbal tests for levels 5/6 through 8, we developed the Sentence Completion items simultaneously within each language/cultural group, tried out **all** of the items on both groups (and in other EL and minority populations), and then built the test using only those items that worked well in all groups. This required the collaboration of bilingual teachers to help us develop hundreds of potential items, and then the participation of many schools with large EL populations to administer the potential items to their students. You have the option to omit the Sentence Completion test for any student taking the primary levels of **CogAT**, resulting an Alternate-Verbal score which can be compared alongside the Verbal scores of other students.

Equivalent Forms

Form 8 was developed to be “parallel” or “equivalent” to Form 7, meaning that we built the new form to the same specifications as Form 7. This means the number of items, types of items, and administration and scoring processes are identical. The items themselves are entirely unique for Form 8 and do not overlap with Form 7, so it means that you have more options for test administration with two equivalent (or interchangeable) forms. In the following sections, we describe a few cases where parallel forms will be useful.

CogAT Screening Forms 7 and 8

Equivalent forms are available for both the full **CogAT** Forms 7 and 8 and for the **CogAT** Screening Forms 7 and 8. Some educators need a fair test for use in universal screening to help them identify students from diverse backgrounds to be considered for talent-development programs. (See our Cognitively Speaking issue from November of 2016

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on the considerations for and advantages of universal screening.) One challenge in using universal screening is determining which test to use and minimizing testing time, given the time and resources required to test all students. When schools cannot administer the complete **CogAT** to all students, the **CogAT** Screening Form is designed to help. The test provides a fair (and more comprehensive) measure of ability than either the **CogAT** Nonverbal Battery or other figural reasoning nonverbal tests. The Screening Form consists of one subtest from each of the three **CogAT** batteries: the Picture/Verbal Analogies test, the Number Analogies test, and the Figure Matrices test. At the primary levels, all three tests are entirely pictorial. At grades 3 and up, only the optional Verbal Analogies subtest uses English words, and this subtest may be omitted or not scored for EL students.

The Screening Form provides a single score that estimates students' general reasoning abilities which is ideal for use in universal screening. Based on a single short subtest each, separate Screening Form verbal, quantitative, and nonverbal scores are not provided because they would not be reliable. The Screening Form score is highly correlated with both the **CogAT** Verbal Battery score and the Quantitative- Nonverbal partial composite. This makes

the Screening Form an effective way to identify students who are expected to score well when administered the complete **CogAT**. However, the cut score on the Screening Form should always be more generous than the cut score on the complete **CogAT** or other placement test.

Free Practice Activities

Research shows that young children sometimes do not fully understand what they are supposed to do on tests, especially when tasks are unfamiliar and test directions are brief. Unsurprisingly, teacher-led practice can increase the validity and stability of the scores that children obtain on the tests. Therefore, we have developed practice materials that schools or districts that have purchased Form 7 or 8 can download and review with students before administering the complete **CogAT** or the Screening Form. Teachers who take the time to use these materials can help ensure that all students understand what they are supposed to do. This helps level the playing field.

Appropriate use of the practice materials can also help children acquire thinking strategies that can assist them in other domains, especially if they are encouraged to notice the similarities between

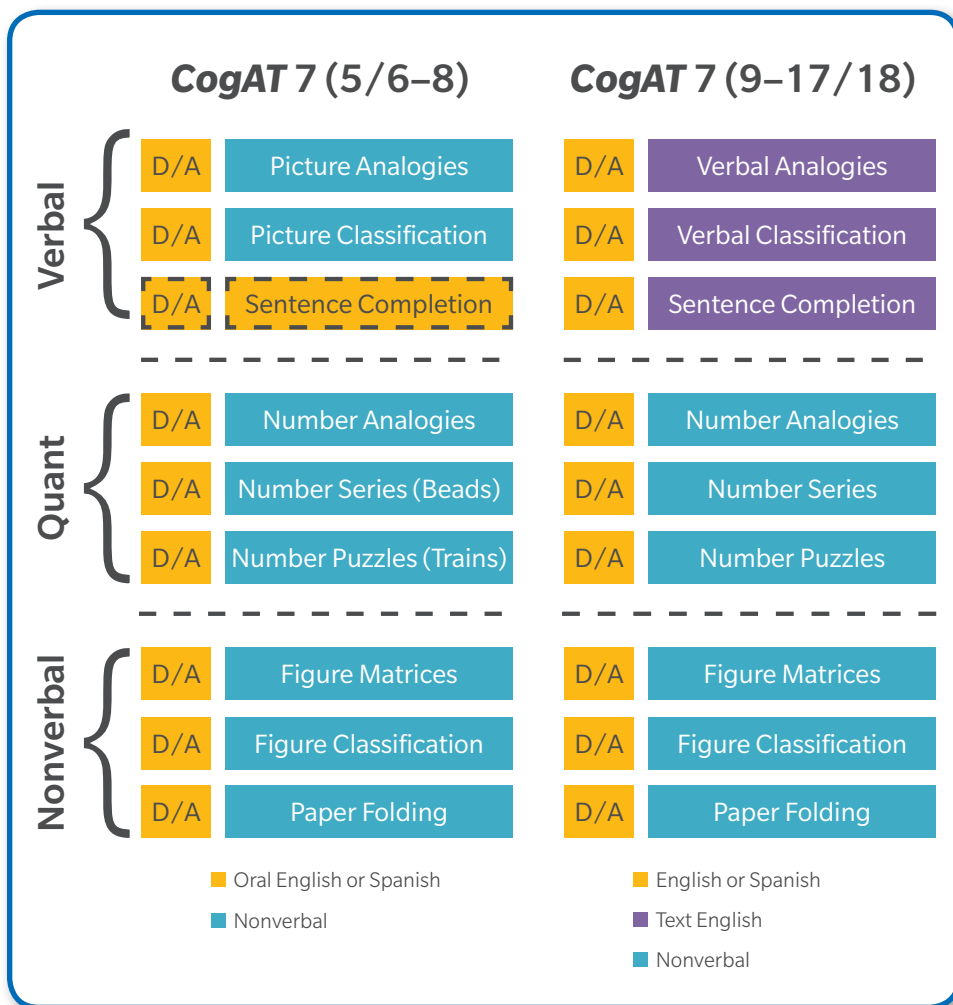
the test-tasks and other school tasks.

CogAT scores predict success in school because they require the same kinds of reasoning abilities that school-learning tasks require. Improving one improves the other.

What's New with Form 8?

One thing that is new with Form 8 is the addition of a second author, Dr. Joni Lakin. Dr. Lakin was deeply involved in developing Form 7 as a graduate student at The University of Iowa working with Dr. David F. Lohman. Form 8 presented the opportunity to bring Dr. Lakin on to serve in an authorship role on the new Form.

We are also using the introduction of Form 8 as an opportunity to enhance some of the features of the program. For instance, in the summer of 2017 we worked with gifted education and general classroom teachers to get their feedback on the Short Guide for Teachers. We have revised this manual to be more teacher-friendly and useful. It will include more vignettes of how to use the recommendations in your classroom. We are also reviewing and revising the *Score Interpretation Guide* with similar updates and enhancements.



CogAT Subtests by Test Levels

		Picture Format (Levels 5/6-8)	Text/Standard Format (Levels 9-17/18)
VERBAL BATTERY	Picture/Verbal Analogies		TV → watch : newspaper → J deliver K comics L read M magazine N listen
	Sentence Completion	"Which one swims in the ocean?" 	The fastest runner _____ the race. A loses B wins C watches D starts E makes
	Picture/Verbal Classification		apple orange pear A fruit B carrot C pea D lemon E onion
QUANTITATIVE BATTERY	Number Analogies		[1 → 2] [3 → 4] [5 → ?] A 2 B 4 C 6 D 8 E 12
	Number Puzzles		? = 2 + 3 A 2 B 3 C 4 D 5 E 6
	Number Series		1 2 4 5 7 8 → A 7 B 8 C 9 D 10 E 11
NONVERBAL BATTERY	Figure Matrices		 A B C D
	Paper Folding		
	Figure Classification		

re-administering the same test level of Form 7 or use an out-of-level test in order to re-test students more quickly. With the introduction of an equivalent form, schools can now immediately retest using the same level of the **CogAT** by interchanging the Form 7 and Form 8 versions.

Test Security

Every assessment program has concerns about the security of test forms and test items. Having two full equivalent forms of **CogAT** allows for schools to take additional steps to ensure that all students have an equal opportunity to do their best on the **CogAT**. By using different forms in different years or even spiraling forms by building, classroom, or student, schools can be confident that any excessive preparation or coaching will have reduced impact on student performance and decrease an unfair advantage.

Additional Options for Universal Screening

Form 7 and 8 offer a Screening Form, using the three analogies subtests, in addition to the full nine-subtest **CogAT**. Many

Through the rest of the academic year, we will also be updating our other resources, including the **CogAT.com** profile site. We are also looking at new options for practice testing to increase the familiarity of **CogAT** for students preparing to take the test.

Potential Uses of Equivalent Forms

Retesting

One of the major advantages of having two parallel forms of **CogAT** is the opportunity for faster and easier retesting of students. In the past, when schools encountered an unusual or challenged test result, we recommended that they wait for several months before

schools use this Screening Form for universal screening, meaning all students in a particular grade level take the screening form to be considered further for specialized services.

Many schools follow up the Screening Form with a shortened full **CogAT** testing, where only the six remaining subtests are administered. However, in some cases, schools prefer or need to administer the entire **CogAT** form after the Screening Form. For instance, schools testing with paper and pencil or schools that have too wide a time interval between the administration of the Screening Form and their follow-up testing do not have the option to use the online **CogAT** Post Screener to administer only 6 additional subtests. With the new equivalent forms, schools now have the

option of screening with Form 7 and follow-up testing with the full **CogAT** using Form 8 (or vice versa). Additionally, this can provide distinct scores from screening and follow-up that may be needed to satisfy reporting requirements for multiple measures. This new option allows for more flexibility in using a combination of online and paper-based testing. It also allows another option for when the Screening Form and Post Screener cannot be administered within the required time frame.

Is Form 8 Easier or Harder than Form 7?

We use a process called “equating” to make sure that the scores from different versions of **CogAT** are directly comparable, whether you’re comparing the results from Forms 7 and 8, online to paper-and-pencil, or proctor-led administration to audio. Equating describes a number of data collection and validation methods that have the goal of transforming the raw score (the actual number correct) from one specific version of a test into the score scales that we used to interpret the results across different versions. For **CogAT**, the scales reported include the Universal Scale Score, Standard Age Score, Grade Percentile Ranking, Age Percentile Ranking, and more.

By using standard and accepted equating methods, we are able to equalize test scores in order to make the same interpretations about students using SAS or any other score scale regardless of which test Form or format was administered.

As a result, even if **CogAT** Forms 7 and 8 varied in how difficult they were, the equating process ensures that all students are compared fairly using the scaled scores with no advantaged based on taking the “easier” or “harder” version. This is true for online and paper-pencil and proctor-led and audio as well. You can be confident that your comparisons of student scores and interpretations of the scaled scores will be consistent across the different **CogAT** assessment options.

How Can I Learn More about Form 8?

Be sure to visit hnhco.com/hmh-assessments/ability/cog-7 for more information about **CogAT** and the new Form 8. At the site you can check out previous issues of *Cognitively Speaking*, watch videos, register for upcoming videos, and find tools to enhance your use of the assessment.

¹ In this case, we used “equivalent groups” equating, which means that we base our equating formula on the score distributions of two groups of students who are randomly equivalent to each other but took different versions of the **CogAT**.



Dr. Joni Lakin is an Associate Professor of Educational Foundations, Leadership, and Technology at Auburn University. She worked on Form 7 and the new edition of **CogAT**, Form 8, due out at the end of 2017.



Victoria Driver is Product Management Director at **Houghton Mifflin Harcourt**® for **CogAT**. She has worked in assessments, education, and research at **HMH**® for over 10 years.

Check out previous issues of *Cognitively Speaking* and view webinars on how to use **CogAT** results on **CogAT.com**.

If you have questions, please contact your **Houghton Mifflin Harcourt** Assessment Account Executive or call **HMH Customer Experience** at **800.323.9540**. You can also visit **CogAT.com** for more information.

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