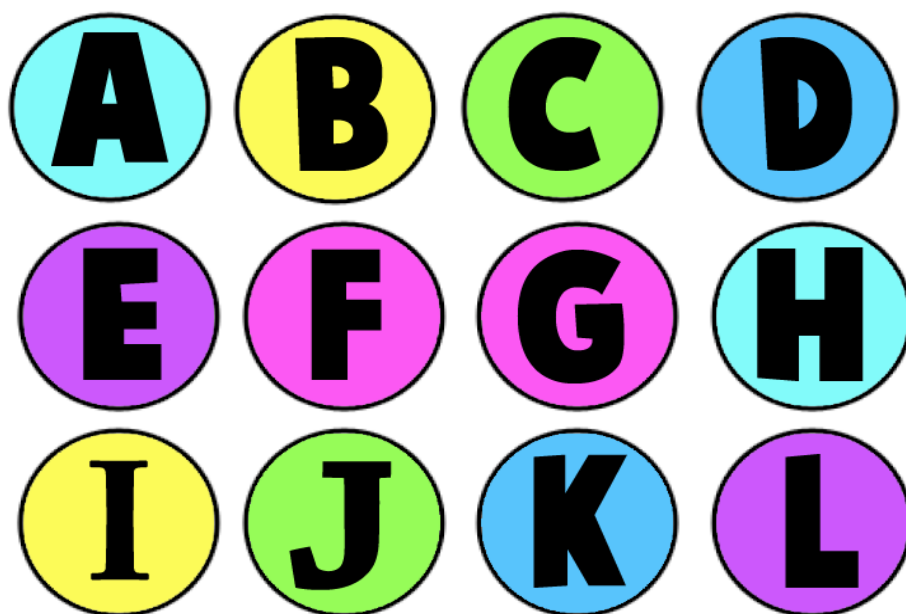


# **Letter Sound Fluency**

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*Special Education*

Dear Educator,

Thank you for your interest in the CBM Letter Sound Fluency Test developed at Vanderbilt University. We are pleased to offer you this excerpt to review.

These pages from the Letter Sound Fluency Test are provided as a courtesy to allow you to preview a representative sampling of the CBM Test. This excerpt includes the following:

1. Test Description
2. Test Administration Script and Scoring Instructions
3. Practice Letter Sound Fluency Test

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If you have questions, email Lynn Davies at [lynn.a.davies@vanderbilt.edu](mailto:lynn.a.davies@vanderbilt.edu).

Thank you for your interest in Vanderbilt University's CBM Letter Sound Fluency Tests.

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**Letter Sound Fluency Test**  
 Doug Fuchs and Lynn Fuchs  
 Vanderbilt University

Description

The Letter Sound Fluency Test (LSFT) taps students' capacity to translate letters into sounds in a fluent manner. Developed at Vanderbilt University with approximately 1500 kindergarten and 1500 first-grade students in the Metropolitan-Nashville Public Schools, LSFT is used to screen at the beginning or the end of kindergarten and at the beginning of first grade to identify students who are likely to develop reading difficulties without corrective action. It is also used to index student progress toward developing alphabetic insight in kindergarten and in September, October, and November of first grade. Administration is conducted individually. The examiner presents the student with a single page showing 26 letters in random order. The student has 1 minute to say the sounds that correspond with the 26 letters. The score is the number of correct letter sounds spoken in 1 minute. If the student finishes in less than 1 minute, the score is prorated. The criterion for at-risk status is a score of 0 at the beginning of kindergarten, < 12 at the end of kindergarten, and < 19 at the beginning of first grade. The standard for rate of growth is 1 sound per week at kindergarten and 1.2 sounds per week during the first half of first grade. Five alternate forms, which can be rotated through multiple times, are available from Vanderbilt University.

Validity and Reliability

The following illustrative data on validity and reliability are based on 496 first graders and on 442 kindergarten children in an urban school district in the southeast, with the following demographics:

<u>Grade</u>	<u>Male</u>	<u>RFL</u>	<u>Lunch*</u>	<u>IEP</u>	<u>Race**</u>	<u>ESL***</u>	<u>Age (SD)</u>	<u>Fall LSFT(SD)</u>	<u>Spring LSFT(SD)</u>
K	52%	53%		7%	Afr:45%	7%	5.65(1.5)	5.21 (7.37)	27.43 (19.62)
					Eur:45%				
					His: 8%				
1	51%	45%		6%	Afr:32%	12%	6.69(0.4)	28.42 (14.38)	47.08 (18.81)
					Eur:46%				
					His:18%				

\* Reduced or free lunch; \*\* African-American, European-American, Hispanic; \*\*\* English as a Second Language

**VALIDITY**

Grade	n	Concurrent Criterion Validity*				Predictive Validity**	
		1. <u>WRMT- WI</u>	2. <u>WRMT- WA</u>	3. <u>WIAT- Spelling</u>	4.	1. <u>WRMT- WI; WA; WIAT-Sp.</u>	2. <u>CBM fall to spring of same year; TerraNova from fall of kindergart en for K and from fall of grade 1 for 1 to spring of grade 1</u>
K	442	.71	.66	.71		.61, .69, .61	.68, .54
1	496	.60	.58	.61		N=494 .57; .53; .49	N=494 .53, .43

**RELIABILITY**

Grade	n	Reliability			
		Test-Retest	Other: <u>alpha</u>	Other: <u>Alternate- form</u>	Other: <u>Other:</u>
K	64	.89	N=442; .94	N=68; .94	
1	82	.92	N=496; .93	N=72; .92	

### False Positives and Negatives

1. Assessed on 442 kindergarten children scoring below the 25<sup>th</sup> percentile at fall; criterion is below 25<sup>th</sup> percentile on WRMT WI/WA:

False negatives: 5%  
False positives: 20%

2. Assessed on 496 first graders scoring below the 25<sup>th</sup> percentile at fall; criterion is below 25<sup>th</sup> percentile on WRMT WI/WA:

False negatives: 3%  
False positives: 13%

3. Assessed on 414 first graders scoring below the 25<sup>th</sup> percentile at fall: criterion is classification as learning disabled in the spring based on low performance and low rate of improvement in reading (Speece & Case, 2001):

False negatives: 14%  
False positives: 8%

### References

Speece, D.L., & Case, L.P. (2001). Classification in context: An alternative approach to identifying early reading disability. *Journal of Educational Psychology*, 93(4), 735-749.

## Letter Sound Fluency Test

### Practice

**Examiner:** I'm going to show you some letters. You can tell me what sound the letters make. You may know the sound for some letters. For other letters, you may not know the sounds. If you don't know the sound a letter makes, don't worry. OK? What's most important is that you try your best. I'll show you how this activity works. My turn first. (Refer to the practice portion of the letter sound fluency sheet. Point to the b.) This says /b/. Your turn now. What sound does it say?

Student: /b/

**Examiner:** Very good. You told me what sound the letter makes.

Correction procedures for incorrect answers only during practice session:

1. Student says name of letter, rather than the sound of the letter.  
Examiner responds: **That's the name of the letter. The sound of the letter is /b/. Say it with me...What sound? Good. You told me the sound the letter makes.**
2. Student says the name of the wrong letter.  
Examiner responds: **The name of that letter is b. the sound it makes is /b/. What sound? Good. You told me what sound the letter makes.**
3. Student says the wrong sound or does not respond.  
Examiner responds: **That sound is /b/. Say it with me...What sound? Very good. You told me the sound the letter makes.**

**Examiner:** My turn again. This says /c/. Your turn now. What sound does it say?  
Do this for the letters "h" and "a". Only the short vowel sounds will count as correct (i.e., /a/ as in apple.)

### Test Administration

**Examiner:** You're doing a really good job. Now it will be just your turn. Go as quickly and carefully as you can. Remember to tell me the sounds the letters make. Remember just try your best. If you don't know the sounds it's OK. Start your stopwatch now. If the child answers correctly, immediately point to the next letter. If the student answers incorrectly, mark it as incorrect by marking a slash through that letter on their score sheet (do not correct their response) and point to the next letter. If a child does not respond after 3 seconds, point to the next letter (do not give them the correct response).

### Scoring

Short vowel, rather than long vowel sounds, are correct. Circle the last letter the child names in 1 minute. If the child finishes in less than 1 minute, please note how many seconds it took on the score sheet.

## Letter Sound Fluency Test

Formula for converting score:

$$\frac{\# \text{ correct}}{\# \text{ seconds}} = A$$

$$A \times 60 = \text{Adjusted Test}$$

For example:

Suzy gets 52 correct in 46 seconds.

$$52/46 = 1.13$$

$$1.13 \times 60 = 67.8 = 68 \text{ is her adjusted score}$$

Please round adjusted scores:

$$63.49 = 63$$

$$63.50 = 64$$



## Score Sheet

Student's Name \_\_\_\_\_

Examiner's Initials \_\_\_\_\_

Teacher's Name \_\_\_\_\_

Date of Testing \_\_\_\_\_

School \_\_\_\_\_

### *Letter Sound Fluency Test*

If child does not say anything after 3 seconds: do not say anything, point to next letter. If names incorrect letter: keep going. Draw a diagonal slash through any letters the student does not say the sound for or says the sound incorrectly. Circle the last item that child attempts. Stop at **1 minute**. If finished before 1 minute: record time.

**h s l p z o j n f y b e i d c a q w x t m k r v g u**

\_\_\_\_\_ number of letters sounded correctly ( in \_\_\_\_\_ seconds)

\_\_\_\_\_ adjusted score ( if completed test in less than 1 minute)

b	c	h	a
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h s l p z

o j n f y

b e i d c

a q w x t

m k r v g u