Internal Consistency of the easyCBM©

Vocabulary Measures:

Grades 2-8

Kraig A. Wray

Julie Alonzo

Gerald Tindal

University of Oregon

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Abstract

This technical report documents findings from a study of the internal consistency and split–half reliability of the easyCBM© Vocabulary measures, grades 2–8. Data, drawn from an extant data set gathered in School Year 2013–2014, include scores from over 170,000 students' fall and winter benchmark assessments. Findings suggest that the easyCBM© Vocabulary measures are internally consistent, with a median Cronbach's alpha of .81, and a median split–half reliability of .66 (first half) and .69 (second half) across all 14 measures analyzed.

Internal Consistency of the easyCBM© Vocabulary Measures, Grades 2-8

Vocabulary measures were added to the easyCBM© benchmarking and progress

monitoring system in 2011, as part of a larger effort to expand the reading and

mathematics assessments available on the system. Detailed information about the

development process can be found in a series of technical reports written by Alonzo,

Anderson, Park, and Tindal (2012a, 2012b, 2012c, 2012d, 2012e, 2012f, and 2012g).

During development, the items were written to be accessible to struggling readers, with

careful review by a team of researchers to eliminate bias related to language,

race/ethnicity, economic background, and gender. All 13 test forms at each grade level

were written to be of equivalent difficulty. In the current study, we used extant data from

the easyCBM© database to analyze the internal consistency and split-half reliability of the

easyCBM© Vocabulary measures across all grades where they are offered.

Methods

Participants

The study was conducted using values from the fall and winter 2013-2014

easyCBM© vocabulary benchmark assessments. The fall benchmark was taken by 26,567

grade 2 students; 29,484 grade 3 students; 27,353 grade 4 students; 29,217 grade 5

students; 22,943 grade 6 students; 17,699 grade 7 students; and 17,917 grade 8 students,

for a total of 171,180 participants. The winter benchmark was taken by 27,673 grade 2

students; 26,993 grade 3 students; 29,629 grade 4 students; 30,598 grade 5 students;

23,191 grade 6 students; 17,577 grade 7 students; and 17,382 grade 8 students, for a total

of 173,043 participants.

American Indian or Alaskan Native students made up 8-10% of the grades 2-6 sample and 2-3% of the grade 7-8 sample. Asian students made up 2-3% of the participants across all grades. Black or African American students made up 9-12%of the grades 2-5 sample and 3-5% in grades 6-8 sample. Native Hawaiian or other Pacific Islander students made up 0-1% and students identified as Two or more Races constituted 2-3% of the sample across all grades. Lastly, White students made up 46-52% of the sample and those classified as Unknown ethnicity made up 27-39% of the sample across all grades.

Similarly, students were identified as Hispanic/Latino made up 11-21% of the sample and students identified as Not Hispanic/Latino made up 59-66% of the sample. The percentage of ELL students in the sample had a range of 14-32%. Students identified by their districts as disabled constituted 19-21% of the sample. Males made up 49-51% of the sample. Complete demographic data can be found in Tables 1-3.

Measures

The easyCBM® vocabulary measures are available in Grades 2-8. In each grade, three alternate forms of the measures have been identified for Benchmark screening and 10 alternate forms have been retained for use as progress monitoring measures. They are designed to be administered to a group of students, either by computer or through a paper/pencil approach. Each vocabulary item consists of a sentence with a bolded target vocabulary word, and three potential choices: the correct answer and two incorrect but plausible distracters. Students earn one point for every item they answer correctly. Grade two has a total of 12 points possible and grades three through eight have a total of 20 points possible.

Data Preparation and Analysis

Prior to analysis, students who had not responded to any items on a particular vocabulary measure were removed from the dataset. Next, the data were examined for scoring irregularities, so that any out-of-range values could be removed. All records were retained during this step, as no out-of-range values were found.

The measures were analyzed for internal consistency using Cronbach's Alpha and Split-half reliability (first half/second half) as well as item level statistics of the top and bottom 27th percentiles. For the split-half reliability, the measures were analyzed using the first half to the median compared to the second half. Further analysis of the data suggests the best reliability will be achieved by retaining all items.

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Results

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Descriptive statistics for easyCBM© vocabulary can be found in Table 4. Table 5 and 6-20, respectively, document the internal consistency in the form of average inter-item reliability (Cronbach's Alpha), followed by split-half reliability and top / bottom reliability

Internal Consistency

easyCBM© vocabulary

The Cronbach's Alpha ranged from .76 to .84 and had a median of .81 for all vocabulary measures in both the fall and winter. As expected, all fall and winter measures for each grade were with in .03 of one another, with most falling within .01. See Table 5 for complete inter-item reliability data.

The split-half reliability ranged from .61 to .75 for the first and second half of the measures. The median for the first half was .66. It was .69 for the second half. The

correlation between the two halves ranged from .58 to .72 with a median correlation of .64. See Table 5 for complete split-half reliability data.

All items at all grade levels performed as expected, with the higher percentile students getting the items correct more often than the lower percentile students. Complete item-level statistics can be found in Tables 6-20.

Discussion

Results of this study provide evidence in support of the internal consistency of the easyCBM© Vocabulary measures, across all grades 2-8. Although only data from the Fall and Winter benchmark assessments were used in this study, the development process used for the measures, in which all alternate forms within a given grade level were designed to be of equivalent difficulty, and the consistent findings across all grades and forms analyzed suggests that the results may well generalize to the other easyCBM© vocabulary forms, including the Spring benchmark tests and all ten progress monitoring forms at each grade level. It is also worth noting that the consistency of the findings across the fall and winter benchmark test forms add to the evidence of form equivalence reported in Alonzo et al. (2012 a-g).

Table 1

Demographic Data: easyCBM© Vocabulary

Grade/ Time	American Indian or Alaskan Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Two or more Races	Unknown	White
2/F	2451	562	3016	90	750	7480	12218
2/W	2527	565	3090	87	747	7853	12804
3/F	2791	811	3339	91	737	8076	13639
3/W	2587	582	3254	102	673	7354	12441
4/F	2352	839	2705	107	657	7459	13234
4/W	2395	823	2973	125	662	8159	14492
5/F	2340	849	2768	115	630	9025	13490
5/W	2431	836	2942	146	664	9479	14100
6/F	1983	490	1059	97	436	8048	10830
6/W	2118	513	1191	109	452	7732	11076
7/F	598	437	540	86	419	6551	9068
7/W	506	466	608	94	427	6320	9156
8/F	501	400	705	87	431	6947	8846
8/W	418	446	669	93	460	6373	8923

Table 2

Demographic Data: easyCBM© Vocabulary (con't)

Grade/ Time	Ethnicity			ELL		
	Hispanic/ Latino	Not Hispanic/ Latino	Unknown	Yes	No	Unknown
2/F	5677	16057	4833	8361	17167	1039
2/W	5641	16366	5666	8813	17614	1246
3/F	6070	17839	5575	8643	20127	714
3/W	5550	16345	5098	7971	18472	550
4/F	4546	18063	4744	6330	20369	654
4/W	5013	18788	5828	7309	21632	688
5/F	4496	19132	5589	5926	22270	1021
5/W	4840	19126	6632	6843	22810	945
6/F	3747	14586	4610	4089	18022	832
6/W	4163	14211	4817	4318	18039	834
7/F	2081	11495	4123	2547	14481	671
7/W	2229	11357	3991	2464	14397	716
8/F	1916	11477	4524	2693	14606	618
8/W	2065	11149	4168	2390	14364	628

Table 3

Demographic Data: easyCBM© Vocabulary (con't)

Grade/ Time	Disability			Gender		
	Yes	No	Unknown	Male	Female	Unknown
2/F	5359	20292	916	12964	12585	1018
2/W	5692	21043	938	13626	13018	1029
3/F	5590	22762	1132	14873	13730	881
3/W	5085	20969	939	13801	12780	412
4/F	5117	20820	1416	13802	12665	886
4/W	5773	22426	1430	14774	13758	1097
5/F	5591	21950	1676	14650	13668	899
5/W	6216	22889	1493	15361	14287	995
6/F	4412	16235	2296	11371	10988	584
6/W	4466	16588	2137	11502	11040	649
7/F	3468	12172	2059	8828	8460	411
7/W	3512	11925	2140	8722	8277	578
8/F	3856	11949	2112	8914	8565	438
8/W	3569	11730	2083	8587	8207	588

Table 4

Descriptive Statistics: easyCBM© Vocabulary

Grade/Time	*N*	*M*	*SD*	Total Possible
2/F	26567	7.73	3.36	12
2/W	27673	9.54	2.91	12
3/F	29484	14.59	4.23	20
3/W	26993	15.75	3.74	20
4/F	27353	15.50	3.81	20
4/W	29629	16.24	3.43	20
5/F	29217	15.93	3.27	20
5/W	30598	16.19	3.21	20
6/F	22943	16.83	3.11	20
6/W	23191	16.76	3.26	20
7/F	17699	16.95	3.04	20
7/W	17577	17.20	2.86	20
8/F	17917	17.34	2.88	20
8/W	17382	17.18	2.77	20

Table 5

Internal Reliability: easyCBM© Vocabulary

Grade/Time	Cronbach's Alpha	Split-half Reliability		
		1st Half	2nd Half	Correlation
2/F	.83	.69	.75	.70
2/W	.84	.73	.73	.72
3/F	.84	.72	.75	.69
3/W	.82	.70	.72	.67
4/F	.82	.71	.72	.65
4/W	.81	.65	.71	.64
5/F	.79	.62	.68	.63
5/W	.78	.61	.68	.59
6/F	.80	.67	.69	.62
6/W	.81	.65	.64	.65
7/F	.79	.66	.67	.64
7/W	.78	.64	.66	.61
8/F	.79	.66	.69	.61
8/W	.76	.65	.64	.58

Table 6

Item Statistics of Students for Grade 2 easyCBM© Vocabulary Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.21	0.41	8562	0.79	0.41	8223
Item 2	0.37	0.48	8562	0.98	0.15	8223
Item 3	0.28	0.45	8562	0.99	0.09	8223
Item 4	0.29	0.45	8562	0.97	0.18	8223
Item 5	0.30	0.46	8562	0.98	0.14	8223
Item 6	0.36	0.48	8562	0.99	0.09	8223
Item 7	0.48	0.50	8562	1.00	0.06	8223
Item 8	0.24	0.43	8562	0.97	0.18	8223
Item 9	0.26	0.44	8562	0.99	0.09	8223
Item 10	0.33	0.47	8562	0.96	0.19	8223
Item 11	0.27	0.44	8562	0.98	0.14	8223
Item 12	0.28	0.45	8562	0.98	0.14	8223

Table 7

Item Statistics of Students for Grade 2 easyCBM© Vocabulary Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.48	0.50	7878	--	--	--
Item 2	0.52	0.50	7878	--	--	--
Item 3	0.41	0.49	7878	--	--	--
Item 4	0.58	0.49	7878	--	--	--
Item 5	0.51	0.50	7878	--	--	--
Item 6	0.38	0.49	7878	--	--	--
Item 7	0.34	0.47	7878	--	--	--
Item 8	0.40	0.49	7878	--	--	--
Item 9	0.34	0.48	7878	--	--	--
Item 10	0.53	0.50	7878	--	--	--
Item 11	0.51	0.50	7878	--	--	--
Item 12	0.42	0.49	7878	--	--	--

Note. Items 1 through 12 of the winter grade 2 measure each have variance of zero indicating all participants in the top 27th percentile answered the questions correctly.

Table 8

Item Statistics of Students for Grade 3 easyCBM© Vocabulary Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.78	0.42	8407	0.99	0.09	9169
Item 2	0.55	0.50	8407	1.00	0.05	9169
Item 3	0.51	0.50	8407	0.99	0.10	9169
Item 4	0.65	0.48	8407	1.00	0.03	9169
Item 5	0.36	0.48	8407	0.94	0.24	9169
Item 6	0.58	0.49	8407	0.99	0.10	9169
Item 7	0.41	0.49	8407	0.84	0.36	9169
Item 8	0.39	0.49	8407	0.86	0.35	9169
Item 9	0.44	0.50	8407	0.98	0.15	9169
Item 10	0.47	0.50	8407	0.99	0.10	9169
Item 11	0.45	0.50	8407	1.00	0.07	9169
Item 12	0.50	0.50	8407	0.99	0.09	9169
Item 13	0.53	0.50	8407	0.97	0.18	9169
Item 14	0.36	0.48	8407	0.95	0.22	9169
Item 15	0.34	0.47	8407	0.88	0.33	9169
Item 16	0.28	0.45	8407	0.81	0.39	9169
Item 17	0.20	0.40	8407	0.80	0.40	9169
Item 18	0.29	0.45	8407	0.97	0.18	9169
Item 19	0.32	0.47	8407	0.92	0.27	9169
Item 20	0.45	0.50	8407	0.99	0.09	9169

Table 9

Item Statistics of Students for Grade 3 easyCBM© Vocabulary Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.91	0.29	9620	1.00	0.02	9111
Item 2	0.88	0.32	9620	1.00	0.02	9111
Item 3	0.62	0.49	9620	1.00	0.06	9111
Item 4	0.76	0.43	9620	0.99	0.07	9111
Item 5	0.54	0.50	9620	0.93	0.26	9111
Item 6	0.76	0.43	9620	0.99	0.08	9111
Item 7	0.48	0.50	9620	0.94	0.24	9111
Item 8	0.37	0.48	9620	0.94	0.25	9111
Item 9	0.69	0.46	9620	1.00	0.07	9111
Item 10	0.85	0.35	9620	1.00	0.01	9111
Item 11	0.55	0.50	9620	0.98	0.14	9111
Item 12	0.70	0.46	9620	0.99	0.12	9111
Item 13	0.46	0.50	9620	0.97	0.18	9111
Item 14	0.59	0.49	9620	0.99	0.08	9111
Item 15	0.26	0.44	9620	0.86	0.35	9111
Item 16	0.39	0.49	9620	0.95	0.21	9111
Item 17	0.66	0.47	9620	0.99	0.08	9111
Item 18	0.35	0.48	9620	0.96	0.18	9111
Item 19	0.65	0.48	9620	0.99	0.10	9111
Item 20	0.73	0.44	9620	1.00	0.07	9111

Table 10

Item Statistics of Students for Grade 4 easyCBM© Vocabulary Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.81	0.40	9028	1.00	0.02	10559
Item 2	0.85	0.35	9028	1.00	0.04	10559
Item 3	0.69	0.46	9028	0.99	0.12	10559
Item 4	0.72	0.45	9028	1.00	0.07	10559
Item 5	0.42	0.49	9028	0.97	0.17	10559
Item 6	0.70	0.46	9028	0.99	0.09	10559
Item 7	0.29	0.45	9028	0.85	0.36	10559
Item 8	0.42	0.49	9028	0.88	0.32	10559
Item 9	0.57	0.49	9028	0.98	0.13	10559
Item 10	0.83	0.38	9028	1.00	0.02	10559
Item 11	0.43	0.49	9028	0.97	0.18	10559
Item 12	0.54	0.50	9028	0.97	0.18	10559
Item 13	0.46	0.50	9028	0.93	0.26	10559
Item 14	0.60	0.49	9028	0.99	0.07	10559
Item 15	0.34	0.47	9028	0.73	0.45	10559
Item 16	0.47	0.50	9028	0.94	0.24	10559
Item 17	0.50	0.50	9028	0.98	0.15	10559
Item 18	0.28	0.45	9028	0.86	0.35	10559
Item 19	0.54	0.50	9028	0.98	0.12	10559
Item 20	0.47	0.50	9028	0.95	0.22	10559

Table 11

Item Statistics of Students for Grade 4 easyCBM© Winter Vocabulary Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.91	0.29	9620	1.00	0.02	9111
Item 2	0.88	0.32	9620	1.00	0.02	9111
Item 3	0.62	0.49	9620	1.00	0.06	9111
Item 4	0.76	0.43	9620	0.99	0.07	9111
Item 5	0.54	0.50	9620	0.93	0.26	9111
Item 6	0.76	0.43	9620	0.99	0.08	9111
Item 7	0.48	0.50	9620	0.94	0.24	9111
Item 8	0.37	0.48	9620	0.94	0.25	9111
Item 9	0.69	0.46	9620	1.00	0.07	9111
Item 10	0.85	0.35	9620	1.00	0.01	9111
Item 11	0.55	0.50	9620	0.98	0.14	9111
Item 12	0.70	0.46	9620	0.99	0.12	9111
Item 13	0.46	0.50	9620	0.97	0.18	9111
Item 14	0.59	0.49	9620	0.99	0.08	9111
Item 15	0.26	0.44	9620	0.86	0.35	9111
Item 16	0.39	0.49	9620	0.95	0.21	9111
Item 17	0.66	0.47	9620	0.99	0.08	9111
Item 18	0.35	0.48	9620	0.96	0.18	9111
Item 19	0.65	0.48	9620	0.99	0.10	9111
Item 20	0.73	0.44	9620	1.00	0.07	9111

Table 12

Item Statistics of Students for Grade 5 easyCBM© Vocabulary Fall Benchmark

| | 27th percentile and below | | | 73rd percentile and above | | |
	M	SD	N	M	SD	N
Item 1	0.92	0.28	9897	1.00	0.03	11192
Item 2	0.82	0.38	9897	1.00	0.04	11192
Item 3	0.67	0.47	9897	0.99	0.12	11192
Item 4	0.87	0.33	9897	1.00	0.06	11192
Item 5	0.55	0.50	9897	0.97	0.16	11192
Item 6	0.54	0.50	9897	0.97	0.17	11192
Item 7	0.21	0.40	9897	0.75	0.43	11192
Item 8	0.43	0.50	9897	0.74	0.44	11192
Item 9	0.82	0.38	9897	1.00	0.06	11192
Item 10	0.74	0.44	9897	0.99	0.09	11192
Item 11	0.56	0.50	9897	0.99	0.12	11192
Item 12	0.69	0.46	9897	0.99	0.08	11192
Item 13	0.70	0.46	9897	0.96	0.18	11192
Item 14	0.52	0.50	9897	0.98	0.13	11192
Item 15	0.26	0.44	9897	0.61	0.49	11192
Item 16	0.42	0.49	9897	0.93	0.26	11192
Item 17	0.62	0.49	9897	0.96	0.20	11192
Item 18	0.40	0.49	9897	0.89	0.31	11192
Item 19	0.73	0.44	9897	0.99	0.08	11192
Item 20	0.78	0.41	9897	1.00	0.06	11192

Table 13

Item Statistics of Students for Grade 5 easyCBM© Winter Vocabulary Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.86	0.34	9694	1.00	0.05	13067
Item 2	0.87	0.34	9694	1.00	0.04	13067
Item 3	0.77	0.42	9694	1.00	0.05	13067
Item 4	0.75	0.43	9694	0.98	0.12	13067
Item 5	0.63	0.48	9694	0.97	0.18	13067
Item 6	0.51	0.50	9694	0.95	0.21	13067
Item 7	0.45	0.50	9694	0.71	0.45	13067
Item 8	0.36	0.48	9694	0.85	0.35	13067
Item 9	0.80	0.40	9694	1.00	0.05	13067
Item 10	0.88	0.32	9694	1.00	0.04	13067
Item 11	0.69	0.46	9694	0.98	0.14	13067
Item 12	0.75	0.43	9694	1.00	0.06	13067
Item 13	0.29	0.45	9694	0.94	0.23	13067
Item 14	0.65	0.48	9694	0.88	0.32	13067
Item 15	0.29	0.45	9694	0.78	0.41	13067
Item 16	0.48	0.50	9694	0.94	0.23	13067
Item 17	0.59	0.49	9694	0.95	0.22	13067
Item 18	0.43	0.50	9694	0.92	0.27	13067
Item 19	0.58	0.49	9694	0.95	0.21	13067
Item 20	0.74	0.44	9694	0.99	0.08	13067

Table 14

Item Statistics of Students for Grade 6 easyCBM© Vocabulary Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.92	0.27	7373	1.00	0.04	7926
Item 2	0.83	0.38	7373	1.00	0.02	7926
Item 3	0.88	0.33	7373	1.00	0.04	7926
Item 4	0.80	0.40	7373	1.00	0.03	7926
Item 5	0.55	0.50	7373	0.97	0.17	7926
Item 6	0.65	0.48	7373	1.00	0.06	7926
Item 7	0.54	0.50	7373	0.93	0.26	7926
Item 8	0.29	0.45	7373	0.87	0.33	7926
Item 9	0.86	0.35	7373	1.00	0.02	7926
Item 10	0.83	0.37	7373	1.00	0.04	7926
Item 11	0.75	0.43	7373	0.99	0.12	7926
Item 12	0.76	0.42	7373	1.00	0.05	7926
Item 13	0.46	0.50	7373	0.97	0.16	7926
Item 14	0.61	0.49	7373	0.96	0.20	7926
Item 15	0.41	0.49	7373	0.93	0.26	7926
Item 16	0.48	0.50	7373	0.89	0.32	7926
Item 17	0.69	0.46	7373	0.99	0.12	7926
Item 18	0.46	0.50	7373	0.93	0.25	7926
Item 19	0.66	0.48	7373	0.99	0.09	7926
Item 20	0.88	0.33	7373	1.00	0.04	7926

Table 15

Item Statistics of Students for Grade 6 easyCBM© Vocabulary Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.89	0.31	8225	1.00	0.02	8449
Item 2	0.90	0.30	8225	1.00	0.02	8449
Item 3	0.81	0.39	8225	1.00	0.05	8449
Item 4	0.86	0.35	8225	1.00	0.02	8449
Item 5	0.60	0.49	8225	0.98	0.15	8449
Item 6	0.51	0.50	8225	0.99	0.11	8449
Item 7	0.30	0.46	8225	0.90	0.29	8449
Item 8	0.39	0.49	8225	0.89	0.31	8449
Item 9	0.91	0.28	8225	1.00	0.02	8449
Item 10	0.72	0.45	8225	0.97	0.17	8449
Item 11	0.72	0.45	8225	1.00	0.06	8449
Item 12	0.76	0.43	8225	0.99	0.11	8449
Item 13	0.63	0.48	8225	0.92	0.26	8449
Item 14	0.78	0.42	8225	0.99	0.08	8449
Item 15	0.41	0.49	8225	0.97	0.17	8449
Item 16	0.46	0.50	8225	0.95	0.22	8449
Item 17	0.70	0.46	8225	0.99	0.10	8449
Item 18	0.43	0.50	8225	0.97	0.17	8449
Item 19	0.66	0.47	8225	0.99	0.10	8449
Item 20	0.85	0.36	8225	1.00	0.02	8449

Table 16

Item Statistics of Students for Grade 7 easyCBM© Vocabulary Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.95	0.22	5692	1.00	0.02	6658
Item 2	0.88	0.33	5692	1.00	0.04	6658
Item 3	0.74	0.44	5692	1.00	0.05	6658
Item 4	0.70	0.46	5692	0.99	0.10	6658
Item 5	0.47	0.50	5692	0.99	0.12	6658
Item 6	0.60	0.49	5692	0.97	0.18	6658
Item 7	0.30	0.46	5692	0.89	0.32	6658
Item 8	0.82	0.38	5692	1.00	0.04	6658
Item 9	0.93	0.26	5692	--	--	--
Item 10	0.83	0.38	5692	1.00	0.04	6658
Item 11	0.80	0.40	5692	0.99	0.09	6658
Item 12	0.77	0.42	5692	1.00	0.05	6658
Item 13	0.55	0.50	5692	0.96	0.19	6658
Item 14	0.68	0.47	5692	0.99	0.11	6658
Item 15	0.32	0.47	5692	0.90	0.29	6658
Item 16	0.44	0.50	5692	0.89	0.31	6658
Item 17	0.74	0.44	5692	0.99	0.08	6658
Item 18	0.49	0.50	5692	0.94	0.25	6658
Item 19	0.58	0.49	5692	0.99	0.11	6658
Item 20	0.85	0.35	5692	0.98	0.14	6658

Note. Item 9 of the fall grade 7 measure has a variance of zero indicating all participants in the top 27th percentile answered the question correctly.

Table 17

Item Statistics of Students for Grade 7 easyCBM© Winter Vocabulary Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.92	0.28	5222	1.0	0.0	7075
Item 2	0.95	0.22	5222	1.0	0.0	7075
Item 3	0.92	0.27	5222	--	--	--
Item 4	0.75	0.43	5222	1.0	0.0	7075
Item 5	0.49	0.50	5222	1.0	0.2	7075
Item 6	0.62	0.49	5222	1.0	0.2	7075
Item 7	0.87	0.33	5222	1.0	0.1	7075
Item 8	0.34	0.47	5222	0.9	0.2	7075
Item 9	0.74	0.44	5222	1.0	0.1	7075
Item 10	0.77	0.42	5222	1.0	0.0	7075
Item 11	0.81	0.39	5222	1.0	0.1	7075
Item 12	0.82	0.39	5222	1.0	0.1	7075
Item 13	0.62	0.49	5222	1.0	0.2	7075
Item 14	0.70	0.46	5222	1.0	0.1	7075
Item 15	0.32	0.47	5222	0.8	0.4	7075
Item 16	0.49	0.50	5222	1.0	0.2	7075
Item 17	0.78	0.41	5222	1.0	0.1	7075
Item 18	0.38	0.48	5222	1.0	0.2	7075
Item 19	0.70	0.46	5222	1.0	0.1	7075
Item 20	0.72	0.45	5222	1.0	0.1	7075

Note. Item 3 of the winter grade 7 measure has a variance of zero indicating all participants in the top 27th percentile answered the question correctly.

Table 19

Item Statistics of Students for Grade 8 easyCBM© Vocabulary Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.98	0.15	6854	--	--	--
Item 2	0.92	0.27	6854	0.99	0.10	7927
Item 3	0.88	0.33	6854	1.00	0.04	7927
Item 4	0.94	0.24	6854	1.00	0.02	7927
Item 5	0.73	0.44	6854	0.99	0.09	7927
Item 6	0.73	0.44	6854	0.97	0.16	7927
Item 7	0.65	0.48	6854	0.99	0.12	7927
Item 8	0.61	0.49	6854	0.98	0.15	7927
Item 9	0.90	0.30	6854	1.00	0.05	7927
Item 10	0.86	0.34	6854	0.99	0.08	7927
Item 11	0.61	0.49	6854	0.98	0.14	7927
Item 12	0.72	0.45	6854	0.98	0.13	7927
Item 13	0.46	0.50	6854	0.95	0.22	7927
Item 14	0.74	0.44	6854	0.99	0.12	7927
Item 15	0.29	0.45	6854	0.79	0.41	7927
Item 16	0.62	0.49	6854	0.98	0.15	7927
Item 17	0.64	0.48	6854	0.94	0.24	7927
Item 18	0.67	0.47	6854	0.98	0.13	7927
Item 19	0.85	0.36	6854	1.00	0.04	7927
Item 20	0.78	0.42	6854	0.99	0.07	7927

Note. Item 1 of the fall grade 8 measure has a variance of zero indicating all participants in the top 27th percentile answered the question correctly.

Table 20

Item Statistics of Students for Grade 8 easyCBM© Vocabulary Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.93	0.25	4989	0.99	0.08	6608
Item 2	0.94	0.25	4989	1.00	0.05	6608
Item 3	0.89	0.31	4989	1.00	0.01	6608
Item 4	0.86	0.35	4989	1.00	0.05	6608
Item 5	0.75	0.43	4989	0.99	0.12	6608
Item 6	0.62	0.48	4989	0.99	0.10	6608
Item 7	0.58	0.49	4989	0.99	0.11	6608
Item 8	0.66	0.47	4989	0.98	0.14	6608
Item 9	0.88	0.32	4989	1.00	0.03	6608
Item 10	0.86	0.34	4989	1.00	0.03	6608
Item 11	0.50	0.50	4989	0.93	0.25	6608
Item 12	0.58	0.49	4989	0.98	0.13	6608
Item 13	0.33	0.47	4989	0.89	0.32	6608
Item 14	0.63	0.48	4989	0.99	0.11	6608
Item 15	0.23	0.42	4989	0.79	0.41	6608
Item 16	0.70	0.46	4989	0.96	0.20	6608
Item 17	0.53	0.50	4989	0.96	0.18	6608
Item 18	0.66	0.47	4989	0.99	0.12	6608
Item 19	0.75	0.43	4989	0.99	0.10	6608
Item 20	0.85	0.36	4989	1.00	0.02	6608

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