



LANGUAGE! Live
2015–2016
National Results

This report presents results for students receiving instruction using *LANGUAGE! Live* during the 2015–2016 school year. Data were pulled from VPORT®, the Voyager Sopris Learning data management system, after the majority of districts finished their school year. This report includes students from any participating district who received instruction, had all scores on the three benchmark assessments, and at least one or more Word Training (WT) and Text Training (TT) units completed.

LANGUAGE! Live provides three benchmark assessments to show student progress in the following areas: grade-level comprehension using the PAR (Progress Assessment of Reading), contextual fluency using the TOSCRF (Test of Silent Contextual Reading Fluency), and spelling using the TWS-4 (Test of Written Spelling, 4th Edition). All of these assessments are provided with the *LANGUAGE! Live* curriculum, but are designed and built by independent companies. MetaMetrics, developer of the Lexile® Framework for Reading, built the PAR; and PRO-ED, from Austin, Texas, built the TOSCRF and TWS-4.

Overall Results

During the 2015–2016 school year, 9,063 students had scores for all three benchmark assessments and one or more WT and TT units. These students came from 576 schools in 215 districts located in 41 states and 1 Canadian province. Figure 1 shows the results for *LANGUAGE! Live* students with matched scores for all students and split into those who were receiving instruction in Level 1 and Level 2. The PAR results are reported in Lexiles, and the TOSCRF and TWS-4 results are reported using Percentile Rank (PR). The beginning of year (BOY) and end of year (EOY) results are shown for each assessment. It is important to remember the PAR is a grade-level assessment and the TOSCRF and TWS-4 are norm-referenced assessments, meaning through the use of these tests, students are being compared to their grade-level and age-level peers.

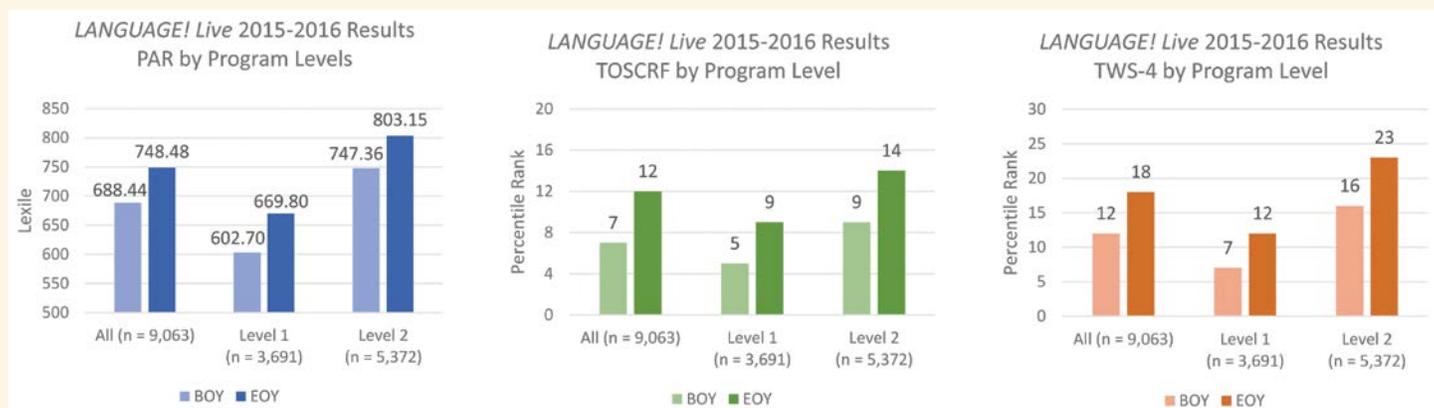


Figure 1. *LANGUAGE! Live* 2015–2016 Results by Benchmark Assessment and Program Level

Table 1 shows the detailed results for students in Level 1 and Level 2 on each assessment. For the TOSCRF and TWS-4, the standard score and percentile rank, in parentheses, are shown in the table. The effect size statistic¹, only calculated for groups of 10 or more students, is used as an indicator of program effectiveness. Effect size is the difference between the mean BOY and EOY scores of students expressed in terms of standard deviation units. Recently, Scammacca, Fall, and Roberts² reported on annual growth effect sizes for K–12 students computed from nationally normed assessments and a longitudinal study of students receiving special education services. Their results provide the effect sizes that represent a year’s worth of growth and provide a better interpretation of the *LANGUAGE! Live* effect size results. Table 2 shows the annual gains in effect size for students in the 10th, 25th, and 50th PR based on the combined results from five nationally normed reading tests. For clarity, Table 2 shows only grades relevant to this analysis, 4th to 11th grades. Students in *LANGUAGE! Live* Level 1 started closer to the 10th percentile while students in Level 2 started closer to the 25th percentile. Averaging the effect sizes in Table 2 across grade levels gives an average effect size of 0.26 for both the 10th and 25th percentiles. This averaged effect size will serve as a year’s worth of growth when grade levels for students receiving *LANGUAGE! Live* instruction are not provided.

¹ According to Cohen (1988), effect sizes (for differences expressed as means) of 0.2 are considered small, 0.5 are regarded as medium, and 0.8 are regarded as large. An effect size of 0.3 is considered educationally meaningful.

² Scammacca, N. K., Fall, A., & Roberts, G. (2015). Benchmarks for expected annual academic growth for students in the bottom quartile of the normative distribution. *Journal of Research on Educational Effectiveness*, 8, 366–379.

LANGUAGE! Live Level 1 started closer to the 10th percentile while students in Level 2 started closer to the 25th percentile. Averaging the effect sizes in Table 2 across grade levels gives an average effect size of 0.26 for both the 10th and 25th percentiles. This averaged effect size will serve as a year’s worth of growth when grade levels for students receiving *LANGUAGE! Live* instruction are not provided.

For *LANGUAGE! Live* students, the effect sizes between the BOY and EOY scores, shown in Table 1, based on Cohen’s definition, are generally small, but educationally meaningful. When considering the Scammacca et al. definition, estimates of growth are more precise. Students gained from about 1.3 years (effect size = 0.33) to about 1.7 years (effect size = 0.45) on the individual measures during the 2015–2016 school year based on the three benchmark assessments. Combining the assessments together, students in Level 1 have an effect size of 0.40 or 1.5 years of growth. Students in Level 2 and all students receiving *LANGUAGE! Live* instruction have an effect size of 0.36 or about 1.4 years of growth.

Table 1. *LANGUAGE! Live* 2015–2016 Students in Level 1 and Level 2

Assessment	Group	Number of Students	BOY Average	EOY Average	Average Gain	Effect Size
PAR	Level 1	3,691	602.70	669.80	67.10	0.42
	Level 2	5,372	747.36	803.15	55.79	0.35
	All Students	9,063	688.44	748.84	60.40	0.35
TOSCRF	Level 1	3,691	75.94 (5)	80.07 (9)	4.13 (4)	0.45
	Level 2	5,372	80.20 (9)	83.79 (14)	3.59 (5)	0.39
	All Students	9,063	78.47 (7)	82.27 (12)	3.80 (5)	0.40
TWS-4	Level 1	3,691	78.11 (7)	82.11 (12)	4.00 (5)	0.34
	Level 2	5,372	85.05 (16)	89.13 (23)	4.08 (7)	0.34
	All Students	9,063	82.23 (12)	86.27 (18)	4.04 (6)	0.33

Table 2. Effect Size Gains by Grade Level based on Nationally Normed Reading Tests Adapted from Scammacca et al. (2015)

Annual Gains in Effect Size for Nationally Normed Reading Tests			
Grade	Means of Tests		
	10th PR	25th PR	50th PR
4th Grade	0.35	0.36	0.38
5th Grade	0.44	0.42	0.38
6th Grade	0.27	0.30	0.33
7th Grade	0.20	0.18	0.21
8th Grade	0.28	0.28	0.27
9th Grade	0.22	0.21	0.21
10th Grade	0.19	0.21	0.23
11th Grade	0.15	0.13	0.14
Average Effect Size	0.26	0.26	0.27

Results Based on Pacing

One of the more important elements of instruction is fidelity of implementation, defined by the National Center on Response to Intervention (NCRTI)³ as the “degree to which the program is implemented as intended by program developer, including the quality of implementation” (p. 11). One of the five elements of fidelity identified by the NCRTI is exposure and duration, which looks at how often students receive instruction and how long that instruction lasts. Because *LANGUAGE! Live* is a blended solution, digital information can be gathered about the number of units being completed in the online component, Word Training (WT), and in the teacher-led instruction, Text Training (TT). Using the self-reported information from districts regarding the number of days per week and time per day instruction will occur, an estimate of the number of WT and TT units that should be completed, either 6 units or 12 units, is made at the beginning of the year. Across the school year, the percent of students on track to meet the pacing units estimate are displayed on the *LANGUAGE! Live* dashboard.

³“Using Fidelity to Enhance Program Implementation Within an RTI Framework” downloaded from http://www.rti4success.org/sites/default/files/Using%20Fidelity%20to%20Enhance%20Program%20Implementation_PPTslides.pdf

This analysis makes use of this pacing information to show benchmark results are better for students who complete more units. Of the 9,063 students who are included in this analysis, 92 percent have been identified as being in the 6 pacing units group during the school year. This analysis, therefore, will focus on 6 pacing units for further analysis. Table 3 presents a view of students and scores based on the number of units completed. Down the left side, the WT units are presented in the rows. Across the top, the TT units are shown in the columns. Where these rows and columns intersect, a very specific set of students is shown. The information about each group includes the number of students, the PAR Lexile, TOSCRF, and TWS-4 gains, and the average effect size across the three measures. The TOSCRF and TWS-4 gains are shown as standard score (SS) and the percentile rank (PR) in parentheses. The last column to the right shows the total WT units and the rows across the bottom show the total TT units.

Table 3. LANGUAGE! Live 2015–2016 Results: Students with all BM Scores and at least 1 WT and TT Unit

			TT Units Completed					Total WT Units
			1 Unit	2 to 3 Units	4 to 5 Units	6 to 7 Units	8 to 12 Units	
WT Units Completed	1 Unit	Number of Students	218	383	200	53	28	882
		PAR Lexile Gain	30.41	43.24	51.93	36.61	24.64	41.05
		TOSCRF SS (PR) Gain	2.29 (3)	2.35 (2)	2.91 (3)	2.55 (2)	4.21 (5)	2.53 (3)
		TWS-4 SS (PR) Gain	3.24 (4)	3.44 (4)	3.13 (5)	3.70 (5)	3.54 (5)	3.34 (4)
		Average Effect Size	0.22	0.26	0.27	0.23	0.28	0.25
	2 to 3 Units	Number of Students	454	1,058	607	216	60	2,395
		PAR Lexile Gain	55.83	44.01	60.71	70.93	62.84	53.38
		TOSCRF SS (PR) Gain	2.78 (3)	2.97 (3)	2.73 (3)	3.94 (3)	1.53 (1)	2.92 (3)
		TWS-4 SS (PR) Gain	2.99 (4)	3.42 (6)	3.55 (4)	4.32 (5)	3.62 (5)	3.46 (4)
		Average Effect Size	0.29	0.28	0.30	0.39	0.24	0.29
	4 to 5 Units	Number of Students	331	889	867	385	67	2,539
		PAR Lexile Gain	44.05	53.15	68.51	70.85	75.89	60.49
		TOSCRF SS (PR) Gain	3.17 (4)	4.06 (5)	3.52 (5)	4.89 (6)	4.03 (6)	3.89 (5)
		TWS-4 SS (PR) Gain	3.92 (6)	4.27 (7)	3.81 (6)	4.33 (7)	3.76 (5)	4.06 (6)
		Average Effect Size	0.30	0.37	0.36	0.44	0.41	0.37
	6 to 7 Units	Number of Students	184	541	472	356	86	1,639
		PAR Lexile Gain	70.78	51.95	62.35	98.55	50.70	67.12
		TOSCRF SS (PR) Gain	4.33 (6)	4.29 (5)	4.01 (5)	5.10 (7)	4.45 (6)	4.40 (6)
		TWS-4 SS (PR) Gain	5.00 (9)	4.18 (7)	4.55 (7)	4.86 (7)	6.20 (9)	4.63 (8)
		Average Effect Size	0.41	0.37	0.40	0.50	0.43	0.41
8 to 12 Units	Number of Students	140	429	420	312	251	1,552	
	PAR Lexile Gain	62.75	63.05	69.47	91.06	82.28	73.50	
	TOSCRF SS (PR) Gain	4.77 (6)	4.97 (7)	4.47 (5)	5.71 (9)	5.68 (7)	5.08 (7)	
	TWS-4 SS (PR) Gain	5.18 (9)	4.01 (7)	4.72 (9)	5.52 (9)	4.23 (9)	4.64 (9)	
	Average Effect Size	0.44	0.43	0.44	0.54	0.46	0.46	
13 to 24 Units	Number of Students	12	23	11	6	4	56	
	PAR Lexile Gain	62.08	55.00	225.00	90.00	155.00	100.80	
	TOSCRF SS (PR) Gain	4.67 (6)	6.83 (10)	3.91 (6)	5.50 (8)	0.75 (1)	5.21 (8)	
	TWS-4 SS (PR) Gain	3.50 (5)	6.56 (12)	7.82 (14)	7.00 (13)	3.50 (4)	5.98 (11)	
	Average Effect Size	0.41	0.60	0.62	NA	NA	0.57	
Total TT Units		Number of Students	1,339	3,323	2,577	1,328	496	9,063
		PAR Lexile Gain	51.61	50.20	65.09	81.76	70.93	60.40
		TOSCRF SS (PR) Gain	3.24 (3)	3.69 (5)	3.53 (4)	4.90 (6)	4.63 (6)	3.80 (5)
		TWS-4 SS (PR) Gain	3.77 (6)	3.88 (6)	3.99 (6)	4.73 (6)	4.39 (7)	4.04 (6)
		Average Effect Size	0.31	0.33	0.36	0.46	0.41	0.36

Working through an example is helpful. At the intersection of 6 to 7 WT units and 6 to 7 TT units, there are 356 students. These students gained almost 100 Lexiles (98.55 Lexiles) from the BOY to EOY. They also gained about 5 standard score points and 7 percentile points from BOY to EOY in contextual fluency and spelling on the TOSCRF and TWS-4. The effect size for this group was 0.50, a medium effect size according to Cohen (1988) and almost two years of growth (1.92 years) according to Scammacca et al. (2015).

The color coding in Table 3 has been added to help make sense of all the different groupings of units. The blue color indicates pacing groups that are behind what is expected during one academic school year. The green color indicates groups that are on pace. Many things compete for students' and teachers' attention during the school day and school year (i.e., assemblies, pep rallies, field trips, test prep, etc.). For this reason, the green pacing group dips down to include students who finished 4 to 5 units and up to 8 to 12 WT and 6 to 7 TT units. The orange color indicates the students who are moving faster than expected based on the 6 unit pacing model. Table 4 shows a summary of the pacing group information from Table 3. Table 4 also shows the average WT and TT units for each group.

The color summary table, Table 4, shows students who are behind pacing expectations, blue group, are still making gains across all measures. For students who are on pace, the green group, the Lexile gains are about 22 Lexiles more than the blue group. The percentile gains on the TOSCRF and TWS-4 double from the blue to the green group, and the effect size increases about 25 percent from the blue to the green group. Interestingly, the gains from the green group to the orange group, the group ahead of pace, are better, but not by that much. In talking to the curriculum developers of *LANGUAGE! Live*, the speculation is that in order to complete that many units, especially that many TT units, based on our understanding of the implementation constraints in schools, the pace may have been too quick, potentially leading to skipping parts of lessons or even skipping entire lessons to complete that many units. In working with struggling readers, moving too fast may not be as useful as adequately and comprehensively covering fewer units.

Table 4. *LANGUAGE! Live* 2015–2016 Results: Students by Pacing Group - Color Summary Table

Color Summary	All	Blue	Green	Orange
Number of Students	9,063	5,791	2,813	460
PAR Lexile Gain	60.40	52.30	74.24	77.70
TOSCRF SS (PR) Gain	3.80 (5)	3.42 (3)	4.38 (6)	5.16 (6)
TWS-4 SS (PR) Gain	4.04 (6)	3.79 (4)	4.46 (8)	4.74 (8)
Average Effect Size	0.36	0.32	0.43	0.45
Average WT Units	4.49	3.89	6.40	9.31
Average TT Units	3.20	2.71	5.13	8.63

The following figures, Figure 2 through Figure 10, show gains for each benchmark assessment by pacing group, followed by showing the gains for Level 1 and Level 2 for each benchmark assessment by pacing group. It is interesting to note the BOY scores are quite similar across the pacing groups. The EOY scores are where the difference occurs, reflecting the difference in the number of WT and TT units completed.

Figure 2. *LANGUAGE! Live* 2015–2016 Results: PAR Pacing Group Detail

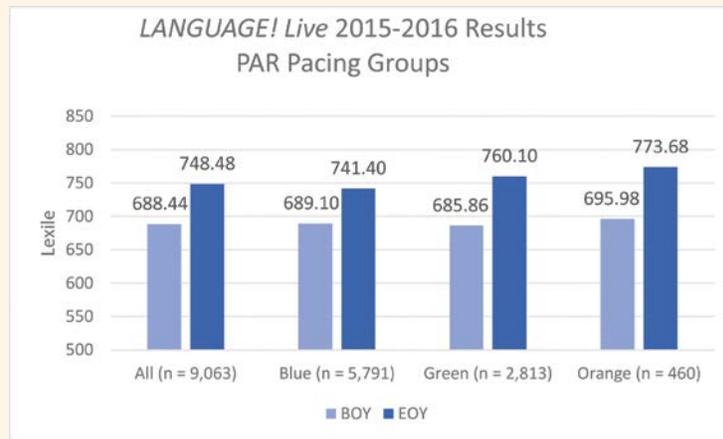


Figure 3. LANGUAGE! Live 2015–2016 Results: PAR Pacing Group Detail for Level 1

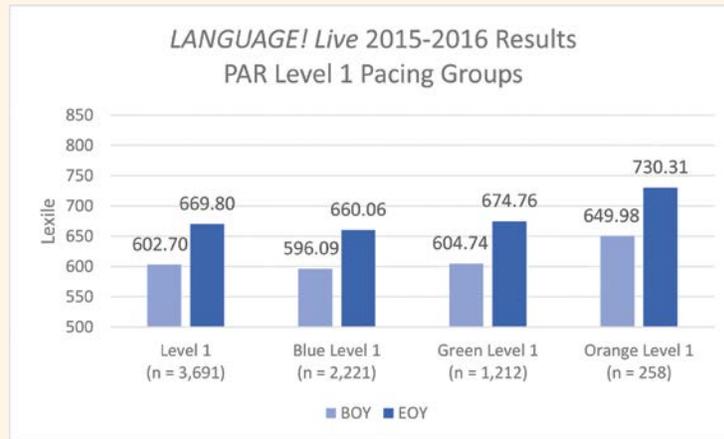


Figure 4. LANGUAGE! Live 2015–2016 Results: PAR Pacing Group Detail for Level 2

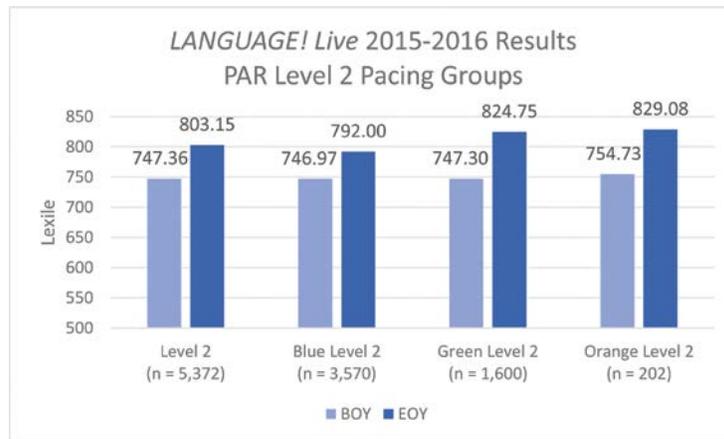


Figure 5. LANGUAGE! Live 2015–2016 Results: TOSCRF Pacing Group Detail

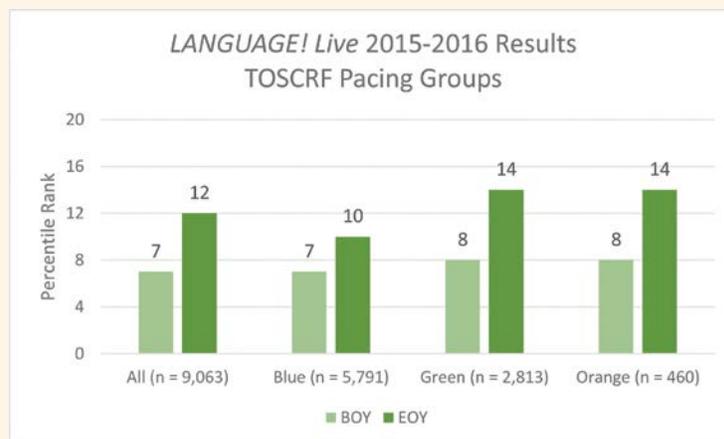


Figure 6. *LANGUAGE! Live* 2015–2016 Results: TOSCRF Pacing Group Detail for Level 1

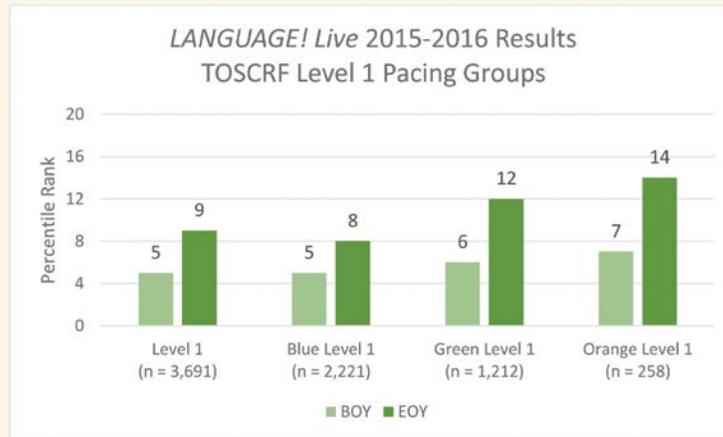


Figure 7. *LANGUAGE! Live* 2015–2016 Results: TOSCRF Pacing Group Detail for Level 2

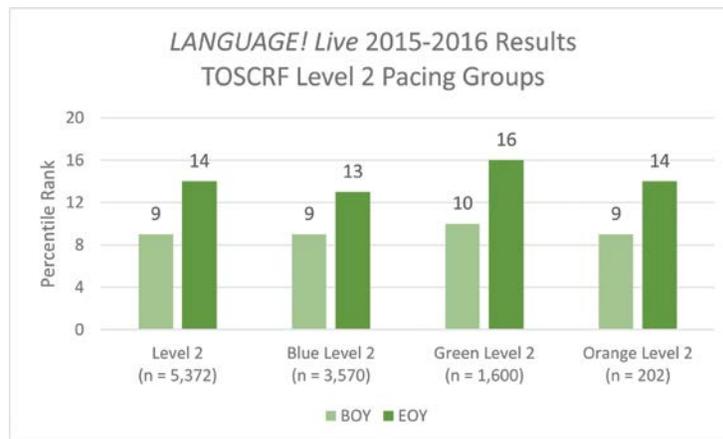


Figure 8. *LANGUAGE! Live* 2015–2016 Results: TWS-4 Pacing Group Detail

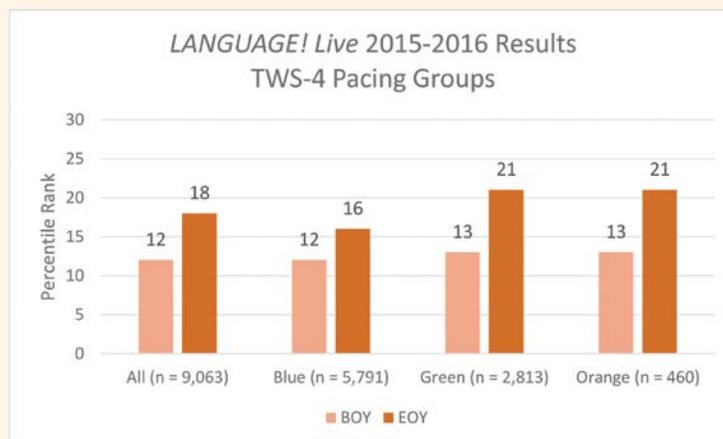


Figure 9. *LANGUAGE! Live* 2015–2016 Results: TWS-4 Pacing Group Detail for Level 1

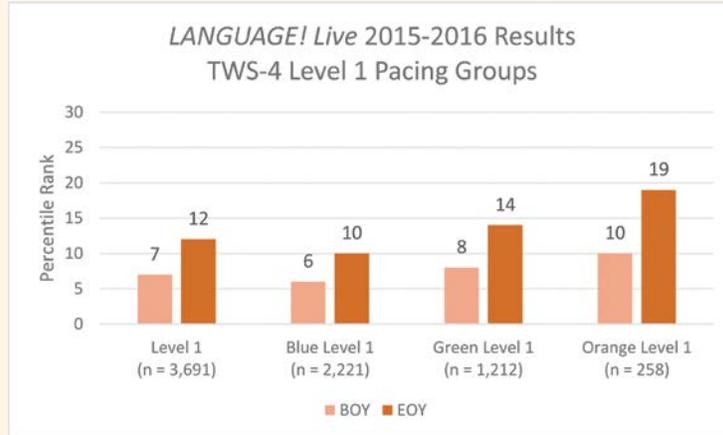


Figure 10. *LANGUAGE! Live* 2015–2016 Results: TWS-4 Pacing Group Detail for Level 2

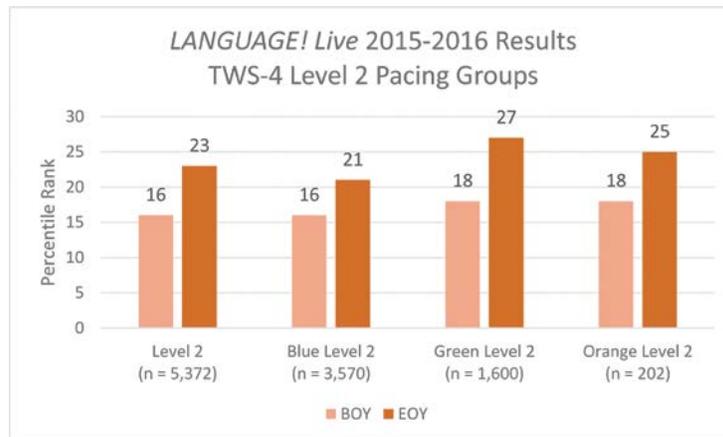


Table 5 disaggregates the data for the green pacing group into grade levels and program levels. *LANGUAGELive* was built with a certain population of students in mind, those from 6th to 9th. Table 5 shows that the program is also being used in 4th and 5th grade as well as 10th and 11th grade. Additionally, the *LANGUAGELive* program recognizes some students will need instruction on more foundational skills than others. Therefore, the program was built with two levels, Level 1 and Level 2. Students may start in either of the levels based on needs.

Table 5. *LANGUAGELive* 2015–2016 Results: Green Pacing Group Detail by Grade Level and Program Level

Grade Level	Program Level	# Students	Average WT Units	Average TT Units	PAR						TOSCRF						TWS-4						Average Effect Size
					BOY Lexile	BOY PR	EOY Lexile	EOY PR	Lexile Gain	PR Gain	BOY \$S	BOY PR	EOY \$S	EOY PR	SS Gain	PR Gain	BOY \$S	BOY PR	EOY \$S	EOY PR	SS Gain	PR Gain	
4th Grade	Level 1	55	7.02	5.51	355.91	16	483.73	22	127.82	6	78.13	7	81.98	12	3.85	5	81.95	12	86.29	18	4.35	6	0.83
	Level 2	66	5.56	5.06	485.30	14	613.33	21	128.03	7	76.85	6	82.18	12	5.33	6	75.00	5	79.71	9	4.71	4	0.73
5th Grade	Level 1	5	5.80	4.40	442.00	11	547.00	14	105.00	3	88.80	23	88.80	23	0.00	0	76.80	6	84.40	14	7.60	8	NA
	Level 2	71	5.58	5.01	482.25	14	608.66	20	126.41	6	77.69	7	82.65	13	4.96	6	75.13	5	80.04	9	4.92	4	0.72
6th Grade	Level 1	500	6.65	5.32	593.04	18	636.15	18	43.11	0	75.97	5	82.72	13	6.75	8	79.90	9	83.44	13	3.53	4	0.49
	Level 2	252	6.44	5.19	650.36	24	707.96	26	57.60	2	78.00	7	86.20	18	8.19	11	85.41	16	89.15	23	3.74	7	0.57
7th Grade	Level 1	752	6.58	5.28	612.25	19	660.21	20	47.97	1	76.65	6	83.89	14	7.23	8	81.75	12	85.35	16	3.60	4	0.51
	Level 2	350	6.22	5.08	613.46	12	691.41	14	77.96	2	79.34	8	82.77	13	3.42	5	79.11	8	84.06	14	4.95	6	0.48
8th Grade	Level 1	397	6.49	5.10	678.01	16	775.55	22	97.54	4	80.80	10	86.97	19	4.89	7	83.94	14	89.54	25	5.61	11	0.57
	Level 2	747	6.36	5.09	647.76	14	736.13	18	88.37	6	80.80	10	85.00	16	4.20	6	81.68	12	86.97	19	5.30	7	0.51
9th Grade	Level 1	125	7.10	5.34	647.88	12	765.00	17	117.12	5	77.50	7	79.39	8	1.89	1	80.19	9	86.14	18	5.94	9	0.49
	Level 2	535	6.16	5.03	760.37	20	848.57	27	88.20	7	83.33	13	84.64	16	1.31	3	86.59	19	90.67	27	4.08	8	0.40
10th Grade	Level 1	660	6.34	5.09	739.07	18	832.74	25	93.67	7	82.23	12	83.65	14	1.42	2	85.38	16	89.81	25	4.43	9	0.41
	Level 2	71	6.15	5.08	772.61	15	827.61	17	55.00	2	74.52	5	78.28	7	3.76	2	79.17	8	82.89	13	3.72	5	0.38
11th Grade	Level 1	230	6.34	5.02	850.00	23	946.74	33	96.74	10	80.13	9	84.53	16	4.40	7	87.69	21	92.48	30	4.79	9	0.57
	Level 2	301	6.30	5.03	831.74	21	918.64	29	86.89	8	78.80	8	83.05	13	4.25	5	85.68	18	96.22	25	4.54	7	0.50
Total	Level 1	29	7.62	4.59	733.97	9	788.45	10	54.48	1	68.86	2	74.45	4	5.59	2	79.66	9	84.10	14	4.45	5	0.49
	Level 2	113	5.80	4.93	865.40	19	865.04	16	-0.35	-3	80.00	9	86.19	18	6.19	9	89.47	23	93.44	32	3.97	9	0.28
Total	Level 1	142	6.17	4.86	838.56	17	849.40	15	10.85	-2	71.73	7	83.79	14	6.06	7	87.46	19	91.54	27	4.07	8	0.30
	Level 2	16	6.88	5.00	811.56	12	838.13	12	26.56	0	71.44	3	72.81	4	1.38	1	79.94	9	83.25	13	3.31	4	0.19
Total	Level 1	68	6.50	5.12	887.13	19	898.24	18	11.10	-1	79.47	8	80.51	10	1.04	2	84.65	16	90.15	25	5.50	9	0.22
	Level 2	84	6.57	5.10	872.74	18	886.79	16	14.05	-2	77.94	7	79.05	8	1.11	1	83.75	14	88.83	23	5.08	9	0.21
Total	Level 1	1,212	6.53	5.21	604.74	11*	674.76	13*	70.02	2*	76.93	6	81.74	12	4.80	6	79.48	8	83.80	14	4.32	6	0.46
	Level 2	1,600	6.30	5.07	747.30	23*	824.75	28*	77.45	5*	81.34	10	85.40	16	4.06	6	85.99	18	90.57	27	4.57	9	0.45
Total	Total	2,812	6.40	5.13	685.86	17*	760.10	21*	74.25	4*	79.44	8	83.82	14	4.38	6	83.19	13	87.65	21	4.46	8	0.43

*Lexile percentile rank and gains are estimated across grades.

Summary

Results of this report included all students receiving *LANGUAGE! Live* instruction who had all the benchmark assessment scores and one or more WT and TT units. Beyond these qualifications, no students were excluded. With the change to a grade-level Lexile assessment, the PAR, the gains are more in line with the other norm-referenced assessments, the TOSCRF and TWS-4. Based on the Scammacca et al. definition of effect sizes, estimates of growth are more precise. Students receiving *LANGUAGE! Live* instruction gained from about 1.3 years to about 1.7 years during the 2015–2016 school year based on the three benchmark assessments. All students receiving *LANGUAGE! Live* instruction during 2015–2016 have an effect size of 0.36 or about 1.4 years of growth. For students not necessarily used to making a year's worth of growth during an academic school year, this is impressive and promising for those students.

Using pacing, or the completion of units of instruction across the school year, is another way to drill down, or disaggregate the data. Three groups were identified during this analysis, consisting of a group behind pace, a group on pace, and a group ahead of pace. There was more difference between the on-pace group, or the green group, and the group that was behind pace than there was between the on-pace and ahead-of-pace groups. This shows there really is a difference when students receive sufficient instruction. It is one thing to say more instruction is required, but another to show a difference achieved by students who receive sufficient instruction, in the form of gains on independent, grade-level assessments.