

**Participation and Performance of Students
Using Accommodations on the
New York State Testing Program**



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1. Summary

- The data indicated high rates of the use of accommodations for students with disabilities and English language learners (ELLs) who participated in the Grades 3-8 ELA and Mathematics Tests and the New York State Alternate Assessment (NYSAA) in 2008.
- The data also indicated high rates of the use of accommodations for students with disabilities on the Grades 3-8 ELA and Mathematics Tests in 2008 and 2009. Similar high rates of the use of accommodations were also found for students with disabilities taking the Regents Examination in Integrated Algebra.
- The data indicated high rates of the use of accommodations for ELLs who participated in the Grades 3-8 ELA and Mathematics Tests in 2008 and 2009. The data showed moderate rates of the use of accommodations for ELLs taking the June 2008 administration of the Regents Examination in Integrated Algebra.
- The results for students with disabilities and ELLs who used accommodations when taking the Grades 3-8 ELA and Mathematics Tests and the June 2008 Regents Examination in Integrated Algebra were comparable to the results of the students with disabilities and ELL subgroups as wholes.
- The finding of high internal consistency provided sound evidence of test reliability for students using accommodations when taking the June 2008 Regents Examination in Integrated Algebra.
- The results of the factor analysis provided needed evidence of the unidimensionality of the construct measured by the June 2008 administration of the Regents Examination in Integrated Algebra for students using accommodations when taking that examination.
- The Grades 3-8 Mathematics Tests have Braille and large-type editions, and have been translated into various alternative languages. Data on the number of schools using these alternative forms is collected.
- A survey was conducted on the actual time taken by students who used the extended time accommodation. The data collected through August 2009 indicate that most students take fewer than four hours to complete the examination. The Regents Examinations in United States History and Government and Global History and Geography have the greatest numbers of students who took more than four hours to complete the examination.

2. NYS procedures for determining appropriate accommodations for students with disabilities and ELLs

New York State has guidelines for Committees on Special Education to determine appropriate accommodations for students with disabilities. See: <http://www.vesid.nysed.gov/specialed/publications/policy/testaccess/policyguide.htm>.

3. Student Participation on the New York State assessments

Students with Disabilities

Table 1 shows the data for students with disabilities who participated in the 2008 Grades 3-8 ELA and Mathematics Tests and in the 2008 NYSAA. In 2008, 97% participated in the Grades 3-8 ELA and Mathematics Tests.

Tables 2 and 3 show the data on the numbers and percents of students with disabilities who used accommodations when taking the 2008 and 2009 Grades 3-8 ELA and Mathematics Tests. In 2008, 87.6% of students used accommodations when taking the Grades 3-8 ELA Tests and 88.5% of students used accommodations when taking the Grades 3-8 Mathematics Tests. In 2009, those percents were 90.3% for the Grades 3-8 ELA Tests and 90.9% for the Grades 3-8 Mathematics Tests.

Table 1: Participation of Students with Disabilities in 2008 Grades 3-8 ELA and Mathematics Tests and the Alternate State Assessment

	Grades 3-8 ELA Tests	Grades 3-8 Mathematics Tests
Number of students with disabilities continuously enrolled	211,483	211,093
Number of students with disabilities who participated in the State Tests /NYSAA	205,139	204,760
Percent of students with disabilities who participated in the State Tests/NYSAA	97.0%	97.0%

Table 2: Participation of Students with Disabilities in 2008 Grades 3-8 ELA and Mathematics Tests and the Use of Accommodations

	Grades 3-8 ELA Tests	Grades 3-8 Mathematics Tests
Number of students with disabilities taking the State Tests	182,855	182,186
Number of students with disabilities taking the State Tests, using accommodations	160,205	161,177
Percent of students with disabilities taking the State Tests, using accommodations	87.6%	88.5%

Table 3: Participation of Students with Disabilities in 2009 Grades 3-8 ELA and Mathematics Tests and the Use of Accommodations

	Grades 3-8 ELA Tests	Grades 3-8 Mathematics Tests
Number of students with disabilities taking the State Tests	181,609	182,664
Number of students with disabilities taking the State Tests, using accommodations	163,974	166,128
Percent of students with disabilities taking the State Tests, using accommodations	90.3%	90.9%

Table 4 shows the use of accommodations by students with disabilities when taking the June 2008 Regents Examination in Integrated Algebra. For that administration, 94.0% of the students with disabilities used accommodations.

Table 4: Participation of Students with Disabilities in June 2008 Regents Examination in Integrated Algebra and the Use of Accommodations

	June 2008 Regents Examination in Integrated Algebra
Number of students with disabilities taking the State Examination	14,107
Number of students with disabilities taking the State Examination, using accommodations	13,257
Percent of students with disabilities taking the State Examination, using accommodations	94.0%

English language learners (ELLs)

Table 5 shows the data for ELLs who participated in the 2008 Grades 3-8 ELA and Mathematics Tests and in the 2008 NYSAA. In 2008, 97% of students participated in the Grades 3-8 ELA Tests and 99.0% of students participated in the Grades 3-8 Mathematics Tests.

Tables 6 and 7 show the data on the numbers and percents of ELLs who used accommodations when taking the 2008 and 2009 Grades 3-8 ELA and Mathematics Tests. In 2008, 88.1% used accommodations when taking the Grades 3-8 ELA Tests and 90.1% when taking the Grades 3-8 Mathematics Tests. In 2009, those percents were 94.3% for the Grades 3-8 ELA Tests and 94.5% for the Grades 3-8 Mathematics Tests.

Table 5: Participation of English Language Learners in 2008 Grades 3-8 ELA and Mathematics Tests and New York State Alternate State Assessment and the Use of Accommodations

	Grades 3-8 ELA Tests	Grades 3-8 Mathematics Tests
Number of ELLs continuously enrolled	84,648	85,473
Number of ELLs who participated in the State Tests /NYSAA	82,108	84,618
Percent of ELLs who participated in the State Tests/NYSAA	97.0%	99.0%

Table 6: Participation of English Language Learners in 2008 Grades 3-8 ELA and Mathematics Tests and the Use of Accommodations

	Grades 3-8 ELA Tests	Grades 3-8 Mathematics Tests
Number of ELLs taking the State Tests	74,933	82,930
Number of ELLs taking the State Tests, using accommodations	65,979	74,687
Percent of ELLs taking the State Tests, using accommodations	88.1%	90.1%

Table 7: Participation of English Language Learners in 2009 State Assessments and Use of Accommodations

	Grades 3-8 ELA Tests	Grades 3-8 Mathematics Tests
Number of ELLs taking the State Tests	74,022	86,291
Number of ELLs taking the State Tests, using accommodations	69,837	81,547
Percent of ELLs taking the State Tests, using accommodations	94.3%	94.5%

Table 8 shows data on ELLs' use of accommodations when taking the June 2008 Regents Examination in Integrated Algebra. For that administration, 75.2% of the ELLs used accommodations.

Table 8: Participation of English Language Learners in the June 2008 Regents Examination in Integrated Algebra and the Use of Accommodations

	June 2008 Regents Examination in Integrated Algebra
Number of ELLs taking the Regents Examination in Integrated Algebra	6,129
Number of ELLs taking the Regents Examination in Integrated Algebra, using accommodations	4,606
Percent of ELLs taking the Regents Examination in Integrated Algebra, using accommodations	75.2%

4. Student Performance on the New York State assessments

Tables 9, 10, and 11 provide the Performance Level Distribution Summaries for the statewide student population, the students with disabilities and ELL populations as wholes, and for students with disabilities and ELLs who both used and did not use accommodations when taking the Grades 3-8 ELA and Mathematics Tests and the Regents Examination in Integrated Algebra.

The results for the students with disabilities and ELLS who used accommodations were comparable to the results of the students with disabilities and ELL subgroups as wholes.

Table 9: Performance Level Distribution Summary, 2009 Grades 3-8 ELA Tests

Demographic Category (Subgroup)	N-Count	Percent of Total N	Level I %	Level II %	Level III %	Level IV %
Statewide student population	1,258,712	100	2.0	20.4	69.0	8.7
Students with disabilities	181,594	14.4	9.3	51.6	38.2	0.9
Students with disabilities using accommodations	163,967	13.0	9.8	53.1	36.5	0.7
Students with disabilities not using accommodations	17,627	1.4	4.6	37.6	54.5	3.2
English language learners (ELLs)	74,014	5.9	9.2	54.5	35.8	0.6
ELLs using accommodations	69,837	5.5	9.4	54.5	35.5	0.6
ELLs not using accommodations	4,177	0.3	6.2	53.0	39.8	1.0

Table 10: Performance Level Distribution Summary, 2009 Grades 3-8 Mathematics Tests

Demographic Category (Subgroup)	N-Count	Percent of Total N	Level I %	Level II %	Level III %	Level IV %
Statewide student population	1,269,679	100	2.6	11.0	57.5	28.9
Students with disabilities	182,655	14.4	12.0	29.9	51.6	6.4
Students with disabilities using accommodations	166,126	13.1	12.4	30.8	51.1	5.6
Students with disabilities not using accommodations	16,529	1.3	7.9	21.2	56.8	14.1
English language learners (ELLs)	86,291	6.8	7.9	24.8	57.0	10.3

Demographic Category (Subgroup)	N-Count	Percent of Total N	Level I %	Level II %	Level III %	Level IV %
ELLs using accommodations	81,547	6.4	8.0	24.9	56.9	10.2
ELLs not using accommodations	4,744	0.4	6.0	23.5	58.6	11.8

Table 11: Performance Level Distribution Summary, June 2008 Regents Examination in Integrated Algebra

Demographic Category (Subgroup)	N-Count	Percent of Total N	0-64 %	65-84 %	85-100 %
Statewide student population	176,801	100	24.9	55.9	19.2
Students with disabilities	14,107	11.43	51.8	44.2	4.0
Students with disabilities using accommodations	13,257	93.97	52.1	44	3.9
Students with disabilities not using accommodations	850	6.03	47.0	47.5	5.5
English language learners (ELLs)	6,129	5.38	58.2	36.1	5.7
ELLs using accommodations	4,606	75.15	61.4	34.2	4.4
ELLs not using accommodations	1,523	24.85	48.7	41.9	9.4

5. Reliability and Validity results for students using test accommodations

Internal Consistency

Test reliability is directly related to score stability and standard error. As such, it is an essential element of test fairness and validity. Table 12 presents the reliability coefficients of the tests for students with disabilities and ELLs and students using test accommodations. It is inferred from the finding of high coefficients that the test questions measured the same domain of skill, and are reliable and consistent. All the

coefficients for total test reliability are in the range of 0.88-0.91, which indicates high internal consistency and provides sound evidence of test reliability.

Table 12: Test Reliability by Subgroup, June 2008 Regents Examination in Integrated Algebra

Demographic Category (Subgroup)	N-Count	Cronbach's Alpha
Statewide student population	176,801	0.92
Students with disabilities	14,107	0.88
Students with disabilities using accommodations	13,257	0.88
Students with disabilities not using accommodations	850	0.89
English language learners (ELLs)	6,129	0.90
ELLs using accommodations	4,606	0.89
ELLs not using accommodations	1,523	0.91

Factor analysis

Construct validity, what scores mean and what kinds of inferences they support, is often considered the most important type of test validity. Empirical studies of the factor structure (dimensionality) of the test provide one type of evidence of construct validity. A principal component factor analysis was conducted to assess the dimensionality of construct for students with disabilities and ELLs using test accommodations. As can be seen in Table 13, a large first principal component demonstrates the common factor – student ability – underlying student responses to test items. The evaluation of eigenvalue magnitude and the proportions of variance, as explained by the main and secondary factors, provide evidence of the essential unidimensionality of the construct measured by the tests for students using test accommodations. The data for these students were comparable to that of the total student population.

Table 13: Factor Analysis by Subgroup, June 2008 Regents Examination in Integrated Algebra

Subgroup	Initial Eigenvalues			
	Component	Total	% of variance	Cumulative %
State	1	10.310	26.436	26.436
	2	1.429	3.665	30.100
	3	1.223	3.135	33.235
	4	0.999	2.561	35.796
Students with disabilities using accommodations	1	8.488	21.763	21.763
	2	1.514	3.882	25.645
	3	1.264	3.242	28.888
	4	1.112	2.851	31.739
ELLs not using accommodations	1	7.888	20.226	20.226
	2	1.422	3.647	23.873
	3	1.282	3.286	27.159
	4	1.049	2.691	29.850

6. Other Accommodation Studies

Distribution of Alternative Grades 3-8 Math Test Editions

The Grades 3-8 Mathematics Tests have Braille and large-type editions, and have also been translated into various alternative languages. The number of schools using these alternate forms is shown in Table 14.

Table 14: Schools Using Alternative Grades 3-8 Mathematics Tests Edition in 2009

Type	Number of Schools
Grades 3-8 Mathematics Tests, Braille edition	92
Grades 3-8 Mathematics Tests, large-type edition	1309
Spanish Translation	1,688
Chinese Translation	602
Haitian Creole Translation	440
Korean Translation	371
Russian Translation	389

Extended Time Survey

A survey was conducted on the actual time taken by students who used the extended time accommodation. The data collected through August 2009 indicate that most students take fewer than four hours. The Regents Examinations in United States History and Government and Global History and Geography have the greatest numbers of students who took more than four hours to complete the examination.

Table 15: Survey on Extended Time for English Language Learners, June 2009

Regents Examinations	Total # of Survey Forms Received	Total # of Students	Actual Time Expended									
			3 Hours or Less		3:01-4:00 Hours		4:01-5:00 Hours		5:01-6:00 Hours		Over 6:00 Hours	
			# of Students	% of Students	# of Students	% of Students	# of Students	% of Students	# of Students	% of Students	# of Students	% of Students
Integrated Algebra	39	1403	819	58.37	324	23.09	251	17.89	8	0.57	1	0.07
Geometry	38	285	229	80.35	51	17.89	5	1.75	0	0.00	0	0.00
Mathematics B	39	276	137	49.64	101	36.59	38	13.77	0	0.00	0	0.00
US History & Government	39	985	268	27.21	301	30.56	344	34.92	66	6.70	6	0.061
Global History & Geography	39	1383	343	24.80	571	41.29	362	26.17	97	7.01	10	0.072
Living Environment	39	710	361	50.85	250	35.21	88	12.39	11	1.55	0	0.00
PS/Earth Science	39	1673	907	54.21	544	32.52	216	12.91	6	0.36	0	0.00
PS/Chemistry	39	406	212	52.22	153	37.68	41	10.10	0	0.00	0	0.00
PS/Physics	39	76	36	47.37	29	38.16	11	14.47	0	0.00	0	0.00