

APPENDIX L
2022 MCAS EQUATING REPORT



Massachusetts Comprehensive Assessment System

2022 EQUATING REPORT

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Equating Report

The purpose of this document is to summarize the psychometric calibration and equating results obtained from Cognia for Next-Gen MCAS. Presented in this report are various program summary statistics and specific results related to the study.

The results of this report are organized as follows:

1. Aggregate Results

1. Percentage of Students by Achievement Levels Categories
2. Raw Scores Associated with Cutpoints
3. Calibration Report
4. Equating Item Summary Statistics

2. Grade Subject Results

1. A/A, B/B, Beta, Delta, Test Characteristic Curve, Test Information Function, and Cumulative Scale Score Distribution Plots
2. Lookup Tables
3. Cumulative Scale Score Distribution Tables
4. Rescore Analysis Results
5. Tabled Delta Analysis Results
6. Tabled B/B Analysis Results
7. Tabled Beta Analysis Results
8. Final Item Parameters
9. Decision Accuracy and Consistency (DAC)
10. Fit Plots of Watchlist Items

The final results of this equating will be included as part of the 2021 - 2022 Next-Gen MCAS Technical Manual. If requested, Cognia will distribute and/or present this report at the next MCAS TAC.

Section 1.1

Percentage of Students by Achievement Levels Categories

Table 1.1.1
 Percentage of Students by Achievement Levels Categories
 English Language Arts

Grade	Year	Count	NM	PM	ME	EE	ME+EE	Delta	Ave. SS
3	2022	61648	13	41	39	7	46	-6.9	497.1
	2021	50011	8	39	43	10	53	-5.7	500.1
	2019	63602	6	36	48	11	58	5.8	504.8
	2018	43046	6	41	43	10	53	1.0	501.8
	2017	26459	7	41	43	8	52		500.1
4	2022	62100	14	46	36	4	40	-11.2	493.8
	2021	50867	11	38	45	6	51	-2.7	498.9
	2019	65450	7	39	44	10	54	-0.5	502.6
	2018	69078	7	38	44	10	55	3.5	502.2
	2017	63918	8	41	43	8	51		500.1
5	2022	63620	11	47	37	5	42	-7.1	495.6
	2021	51362	10	41	41	8	49	-5.0	497.9
	2019	67933	6	39	47	8	54	-1.5	501.9
	2018	69390	6	38	49	7	56	4.4	502.3
	2017	28547	7	42	46	5	51		499.9
6	2022	63887	20	37	35	8	43	-7.2	494.0
	2021	51319	19	31	37	13	50	-5.7	498.4
	2019	67612	11	33	42	13	56	3.4	502.5
	2018	53988	10	38	42	11	52	-0.7	501.3
	2017	29369	8	39	47	6	53		500.3
7	2022	65584	17	40	37	6	42	-3.2	493.7
	2021	51120	17	37	39	7	46	-4.8	495.6
	2019	67462	11	39	42	9	50	3.6	499.8
	2018	66410	13	40	39	8	47	-6.5	497.4
	2017	30209	8	38	48	6	53		500.2
8	2022	67919	16	40	36	7	43	-0.3	494.8
	2021	50822	15	41	37	7	44	-10.0	496.2
	2019	67350	11	35	42	12	54	1.1	500.6
	2018	69486	13	34	42	10	52	1.1	499.6
	2017	65314	9	40	43	8	51		499.5
10	2022	65193	7	34	51	9	60	-6.4	502.9
	2021	67110	8	26	46	20	66	2.3	508.1
	2019	67067	6	31	50	14	64		507.3

Table 1.1.2
 Percentage of Students by Achievement Levels Categories
 Mathematics

Grade	Year	Count	NM	PM	ME	EE	ME+EE	Delta	Ave. SS
3	2022	53433	13	39	40	8	48	9.8	497.5
	2021	45242	20	42	32	6	38	-18.0	491.2
	2019	56176	7	37	45	11	56	7.2	503.0
	2018	43501	11	40	40	9	49	-3.2	499.1
	2017	26659	11	37	44	8	52		499.2
4	2022	53577	10	40	43	7	50	10.9	498.8
	2021	45553	17	44	34	4	39	-17.8	491.7
	2019	57629	6	37	47	10	57	7.7	503.0
	2018	69779	11	40	42	7	49	-1.9	498.0
	2017	64473	10	39	44	6	51		498.7
5	2022	55635	10	48	38	5	42	3.1	496.5
	2021	46011	13	47	35	5	39	-15.5	493.5
	2019	60444	5	40	48	6	55	8.0	501.7
	2018	70083	9	45	42	5	47	-2.7	497.7
	2017	29285	8	42	42	8	49		499.4
6	2022	56939	9	43	42	6	48	8.9	498.2
	2021	46699	16	45	34	5	39	-18.9	493.4
	2019	61719	6	37	46	12	58	9.6	504.0
	2018	54582	9	43	42	6	48	-4.2	498.4
	2017	29704	9	39	46	6	52		499.7
7	2022	59311	13	45	34	8	42	2.7	495.5
	2021	46839	13	48	32	7	39	-13.4	494.9
	2019	62495	9	39	41	12	53	5.3	501.0
	2018	66925	12	40	40	8	47	-0.9	497.7
	2017	30144	9	43	40	8	48		498.9
8	2022	62311	12	48	32	8	40	4.4	495.8
	2021	47150	16	48	32	4	36	-15.1	492.0
	2019	62817	8	41	40	11	51	0.4	501.5
	2018	70044	11	39	42	8	51	1.1	498.9
	2017	66077	9	42	40	9	49		500.3
10	2022	61296	7	39	41	12	54	-1.4	503.0
	2021	57770	9	36	43	12	55	-7.4	502.2
	2019	64481	6	32	48	14	63		506.9

Table 1.1.3
 Percentage of Students by Achievement Levels Categories
 Science

Grade	Year	Count	NM	PM	ME	EE	ME+EE	Delta	Ave. SS
5	2022	56846	12	39	40	8	48	-0.1	498.5
	2021	45455	12	39	41	8	49	-6.8	498.2
	2019	60476	7	38	45	10	55		502.5
8	2022	62926	13	41	39	6	46	0.6	496.3
	2021	46950	11	44	36	9	45	-5.3	497.6
	2019	62933	8	41	41	9	50		500.5

Section 1.2

Raw Scores Associated with Cutpoints

Table 1.2.1
Raw Scores Associated with Cutpoints

Subject	Grade	Cut Point	2021 Actual	2022 Actual	2022 Pred
English Language Arts	3	NM-PM	6	14	11
		PM-ME	14	28	25
		ME-EE	20	37	35
English Language Arts	4	NM-PM	7	15	13
		PM-ME	15	29	26
		ME-EE	22	39	37
English Language Arts	5	NM-PM	8	16	14
		PM-ME	17	33	31
		ME-EE	23	43	42
English Language Arts	6	NM-PM	9	19	15
		PM-ME	17	32	29
		ME-EE	24	42	40
English Language Arts	7	NM-PM	10	18	16
		PM-ME	18	32	31
		ME-EE	25	44	43
English Language Arts	8	NM-PM	11	22	18
		PM-ME	20	36	34
		ME-EE	26	45	44
English Language Arts	10	NM-PM	19	19	18
		PM-ME	35	37	34
		ME-EE	45	47	44
Mathematics	3	NM-PM	7	14	14
		PM-ME	15	30	30
		ME-EE	21	43	43
Mathematics	4	NM-PM	7	14	15
		PM-ME	17	33	34
		ME-EE	25	49	49
Mathematics	5	NM-PM	7	13	12
		PM-ME	17	33	33
		ME-EE	25	50	49
Mathematics	6	NM-PM	6	11	12
		PM-ME	15	28	29
		ME-EE	24	48	47
Mathematics	7	NM-PM	5	10	10
		PM-ME	15	25	25
		ME-EE	24	46	46
Mathematics	8	NM-PM	6	12	13
		PM-ME	14	32	32
		ME-EE	25	49	49

Table 1.2.1 (continued)
Raw Scores Associated with Cutpoints

Subject	Grade	Cut Point	2021 Actual	2022 Actual	2022 Pred
Mathematics	10	NM-PM	13	11	12
		PM-ME	30	30	31
		ME-EE	53	52	52
Science	5	NM-PM	9	19	18
		PM-ME	17	34	34
		ME-EE	23	45	46
Science	8	NM-PM	9	16	16
		PM-ME	17	31	32
		ME-EE	22	45	46

Section 1.3

Calibration Report

Calibration Report—Executive Summary

FlexMIRT 3.03 was used for the IRT calibration at Cognia. All command files were set up in a way following general settings. The calibration convergence criterion was set to 0.001.

A 3PLM was used for standard four-option multiple choice (MC) items, a 2PLM was used for dichotomously scored short response items, multi-select items, and technology-enhanced items, and a Graded Response Model (GRM) was specified for the polytomously scored multi-part items and open response items. The logistic version of the IRT models was used. The prior distribution for the guessing parameter was set to be $\text{beta}(5,17)$, and $\text{logNormal}(0, 0.25)$ was used as the prior for the item discrimination parameter. No prior was supplied for the item difficulty parameter.

The calibration went smoothly and got converged in all subjects/grades. In particular, the largest change in parameter values (from one iteration to the next) was decreasing and tended to flatten out towards the end of the calibration process. The IRT model fit was evaluated for each of the items. The resulting parameters demonstrated good model fit for most of the items.

In ELA a two-stage process was used to bring the item parameters onto the operational scale. First all items except the writing prompts were freely calibrated. Next the items except the writing prompts were placed onto scale using the Stocking and Lord procedure. These first two steps are referred to as stage 1. Next, the writing prompts were brought onto scale holding the parameters from stage 1 fixed, and a Fixed Common Item Parameter calibration using FlexMIRT. This two-stage process is used to assure that the writing prompt estimation process does not unduly influence the dimensional structure of the initial parameter estimation in Stage 1, providing for greater scale stability.

The first table in this section shows the number of cycles to achieve convergence in Stage 1 of the ELA procedure. The second table lists the Stocking and Lord transformation constants that were calculated in the second step of Stage 1. The third table shows the number of cycles to achieve convergence in the FCIP calibration runs for Stage 2.

Table 1.3.1.a
Number of Cycles to Convergence for ELA Calibration with no Writing Prompts

Subject	Grade	Initial Cycles
English Language Arts	Grade 3	52
English Language Arts	Grade 4	32
English Language Arts	Grade 5	89
English Language Arts	Grade 6	45
English Language Arts	Grade 7	34
English Language Arts	Grade 8	46
English Language Arts	Grade 10	49

Table 1.3.1.b
Stocking and Lord Constants for ELA Equating with no Writing Prompts

Subject	Grade	Slope	Intercept
English Language Arts	3	1.12	-0.15
English Language Arts	4	1.04	-0.30
English Language Arts	5	1.10	-0.22
English Language Arts	6	1.44	-0.33
English Language Arts	7	1.29	-0.29
English Language Arts	8	1.38	-0.18
English Language Arts	10	1.09	-0.13

Table 1.3.1.c
Number of Cycles to Convergence for ELA FCIP Calibration with Writing Prompts Included

Subject	Grade	Initial Cycles	Equating Cycles
English Language Arts	Grade 3	33	8
English Language Arts	Grade 4	18	12
English Language Arts	Grade 5	81	11
English Language Arts	Grade 6	42	16
English Language Arts	Grade 7	59	24
English Language Arts	Grade 8	79	31
English Language Arts	Grade 10	88	41

The Math and Science tests were equated using a single stage procedure of freely calibrating all items and placing them on the operational scale using the Stocking and Lord procedure. The next table in this section lists the number of cycles to achieve convergence, followed by a table of the Stocking and Lord transformation constants.

Table 1.3.1.d
Number of Cycles to Convergence for Math and Science

Subject	Grade	Initial Cycles
Mathematics	Grade 3	54
Mathematics	Grade 4	60
Mathematics	Grade 5	35
Mathematics	Grade 6	56
Mathematics	Grade 7	91
Mathematics	Grade 8	31
Mathematics	Grade 10	63
Science	Grade 5	43
Science	Grade 8	45

Table 1.3.1.e
Stocking and Lord Constants for Math and Science

Subject	Grade	Slope	Intercept
Mathematics	3	1.11	-0.11
Mathematics	4	1.04	-0.01
Mathematics	5	1.01	-0.17
Mathematics	6	1.01	-0.09
Mathematics	7	1.08	-0.17
Mathematics	8	1.02	-0.16
Mathematics	10	1.01	-0.17
Science	5	1.13	-0.20
Science	8	1.05	-0.20

Four methods of evaluating the suitability of the equating items were used: the delta analysis, the b/b analysis, beta analysis and the rescore analysis. Results from the beta analyses were used to flag items that were reviewed by content personnel and no items were removed from the equating analysis. Results from these analyses are included in Section II of this report.

Items flagged by the delta method or any item that required intervention during the calibration process, were compiled and placed in our item watch list, which includes the final actions taken on these items. The final watch list is presented in the following table:

Table 1.3.2
Final Items Watch List

Subject	Grade	ItemID	Reason	Action
English Language Arts	3	IA00450 (EL626050679)	beta analysis	retained for equating
English Language Arts	3	IA00451 (EL626050927)	beta analysis	retained for equating
English Language Arts	3	IA00452 (EL626051097)	beta analysis	retained for equating
English Language Arts	3	IA00458A (EL626052459#SCORE_TRAIT_Conv)	beta analysis	retained for equating
English Language Arts	4	IA00289 (EL309792)	beta analysis	retained for equating
English Language Arts	5	IA00505 (EL626355215)	beta analysis	retained for equating
English Language Arts	5	IA00506 (EL626355557)	beta analysis	retained for equating
English Language Arts	5	IA01672 (EL711827807)	beta analysis	retained for equating
English Language Arts	6	IA00520 (EL626865416)	beta analysis	retained for equating
English Language Arts	6	IA00530 (EL626868748)	beta analysis	retained for equating
English Language Arts	6	IA00531A (EL626869132#SCORE_TRAIT_Conv)	beta analysis	retained for equating
English Language Arts	7	IA00069 (EL292172)	beta analysis	retained for equating
English Language Arts	7	IA00070 (EL292176)	beta analysis	retained for equating
English Language Arts	7	IA00658 (EL628653398)	beta analysis	retained for equating
English Language Arts	7	IA00665A (EL628749729#SCORE_TRAIT_Conv)	beta analysis	retained for equating
English Language Arts	8	IA00059 (EL290800)	beta analysis	retained for equating
English Language Arts	8	IA00062 (EL290808)	beta analysis	retained for equating
English Language Arts	8	IA00064A (EL290818#SCORE_TRAIT_Conv)	beta analysis	retained for equating
English Language Arts	8	IA00064D (EL290818#SCORE_TRAIT_Ideadev)	beta analysis	retained for equating
English Language Arts	8	IA00371 (EL623951471)	beta analysis	retained for equating
English Language Arts	8	IA00374 (EL623952612)	beta analysis	retained for equating
English Language Arts	8	IA00379 (EL623955757)	beta analysis	retained for equating
English Language Arts	10	IA04110 (EL807953958)	beta analysis	retained for equating
English Language Arts	10	IA06626A (EL811561885#SCORE_TRAIT_Conv)	beta analysis	retained for equating
Mathematics	3	IA00930 (MA306359)	beta analysis	retained for equating
Mathematics	4	IA00861 (MA297629)	beta analysis	retained for equating
Mathematics	4	IA00958 (MA307055)	beta analysis	retained for equating
Mathematics	4	IA00963 (MA307085)	beta analysis	retained for equating
Mathematics	4	IA01055 (MA311572)	beta analysis	retained for equating
Mathematics	4	IA01093 (MA623879088)	beta analysis	retained for equating
Mathematics	4	IA02819 (MA713583365)	beta analysis	retained for equating
Mathematics	4	IA02841 (MA713774890)	beta analysis	retained for equating
Mathematics	5	IA01155 (MA624357395)	beta analysis	retained for equating
Mathematics	5	IA04970 (MA800974344)	beta analysis	retained for equating
Mathematics	6	IA00827 (MA287186)	beta analysis	retained for equating
Mathematics	6	IA02037 (MA217493)	beta analysis	retained for equating
Mathematics	7	IA00796 (MA259267)	beta analysis	retained for equating

Table 1.3.2 (continued)
Final Items Watch List

Subject	Grade	ItemID	Reason	Action
Mathematics	7	IA01011 (MA311109)	beta analysis	retained for equating
Mathematics	7	IA04486 (MA227988)	beta analysis	retained for equating
Mathematics	8	IA00979 (MA307472)	beta analysis	retained for equating
Mathematics	8	IA01042 (MA311448)	beta analysis	retained for equating
Mathematics	8	IA02495 (MA309741)	beta analysis	retained for equating
Mathematics	10	IA04800 (MA717740737)	beta analysis	retained for equating
Mathematics	10	IA04846 (MA735743236)	beta analysis	retained for equating
Mathematics	10	IA04993 (MA801434971)	beta analysis	retained for equating
Mathematics	10	IA05117 (MA804678931)	beta analysis	retained for equating
Mathematics	10	IA05144 (MA805372590)	beta analysis	retained for equating
Mathematics	10	IA05170 (MA806408603)	beta analysis	retained for equating
Science	8	IA05243 (SC289702)	beta analysis	retained for equating
Science	8	IA05245 (SC290144)	beta analysis	retained for equating

Section 1.4

Equating Item Summary Statistics

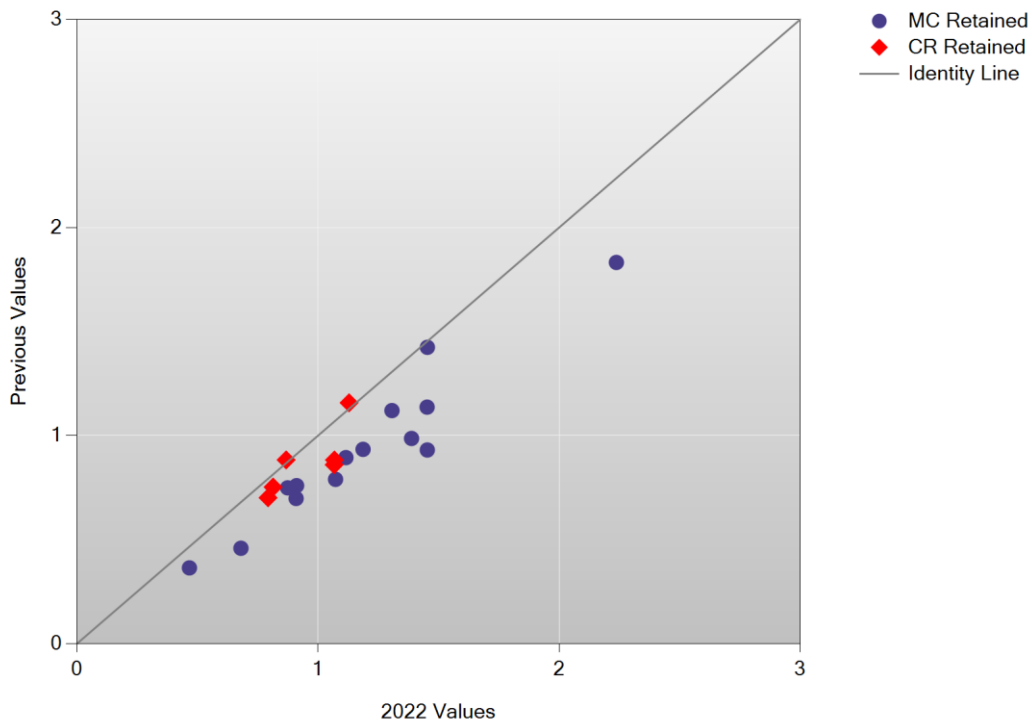
Table 1.4.1
Equating Item Summary Statistics

Subject	Grade	Year	P-Value		Point Biserial		a		b	
			Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
English Language Arts	03	2022	0.54	0.18	0.49	0.09	1.11	0.38	0.16	0.77
		Previous	0.60	0.17	0.45	0.09	0.92	0.32	-0.05	0.71
English Language Arts	04	2022	0.60	0.18	0.43	0.10	0.85	0.20	-0.19	0.87
		Previous	0.67	0.17	0.42	0.09	0.77	0.16	-0.48	0.87
English Language Arts	05	2022	0.61	0.19	0.45	0.12	0.88	0.26	-0.23	0.83
		Previous	0.65	0.18	0.41	0.13	0.77	0.25	-0.53	0.85
English Language Arts	06	2022	0.62	0.15	0.47	0.14	0.90	0.22	-0.23	0.79
		Previous	0.71	0.16	0.42	0.16	0.67	0.27	-0.82	0.92
English Language Arts	07	2022	0.65	0.16	0.49	0.14	0.95	0.25	-0.44	0.76
		Previous	0.72	0.15	0.44	0.14	0.79	0.24	-0.98	0.84
English Language Arts	08	2022	0.61	0.14	0.47	0.16	0.94	0.32	-0.19	0.61
		Previous	0.67	0.13	0.43	0.15	0.71	0.26	-0.54	0.77
English Language Arts	10	2022	0.70	0.11	0.46	0.12	0.90	0.27	-0.76	0.61
		Previous	0.72	0.11	0.46	0.12	0.83	0.22	-0.93	0.68
Mathematics	03	2022	0.63	0.16	0.49	0.10	1.01	0.22	-0.35	0.79
		Previous	0.69	0.16	0.43	0.11	0.92	0.22	-0.51	0.89
Mathematics	04	2022	0.59	0.17	0.50	0.11	1.03	0.30	-0.20	0.68
		Previous	0.63	0.16	0.49	0.11	1.02	0.25	-0.19	0.60
Mathematics	05	2022	0.56	0.20	0.47	0.10	0.99	0.29	-0.11	0.85
		Previous	0.62	0.20	0.44	0.12	0.97	0.25	-0.29	0.91
Mathematics	06	2022	0.55	0.18	0.47	0.14	1.07	0.31	-0.02	0.89
		Previous	0.60	0.17	0.47	0.13	0.97	0.27	-0.15	0.90
Mathematics	07	2022	0.55	0.20	0.52	0.13	1.20	0.31	-0.09	0.74
		Previous	0.55	0.21	0.50	0.12	1.03	0.27	-0.34	0.79
Mathematics	08	2022	0.56	0.14	0.49	0.12	1.18	0.40	0.00	0.63
		Previous	0.61	0.15	0.49	0.10	1.08	0.33	-0.16	0.64
Mathematics	10	2022	0.45	0.16	0.47	0.16	1.11	0.45	0.46	0.79
		Previous	0.51	0.16	0.48	0.14	1.16	0.39	0.17	0.79
Science	05	2022	0.63	0.19	0.43	0.09	0.81	0.20	-0.41	0.96
		Previous	0.66	0.19	0.40	0.10	0.74	0.19	-0.60	1.01
Science	08	2022	0.56	0.18	0.43	0.13	0.88	0.38	-0.08	1.00
		Previous	0.59	0.17	0.41	0.13	0.81	0.33	-0.33	1.04

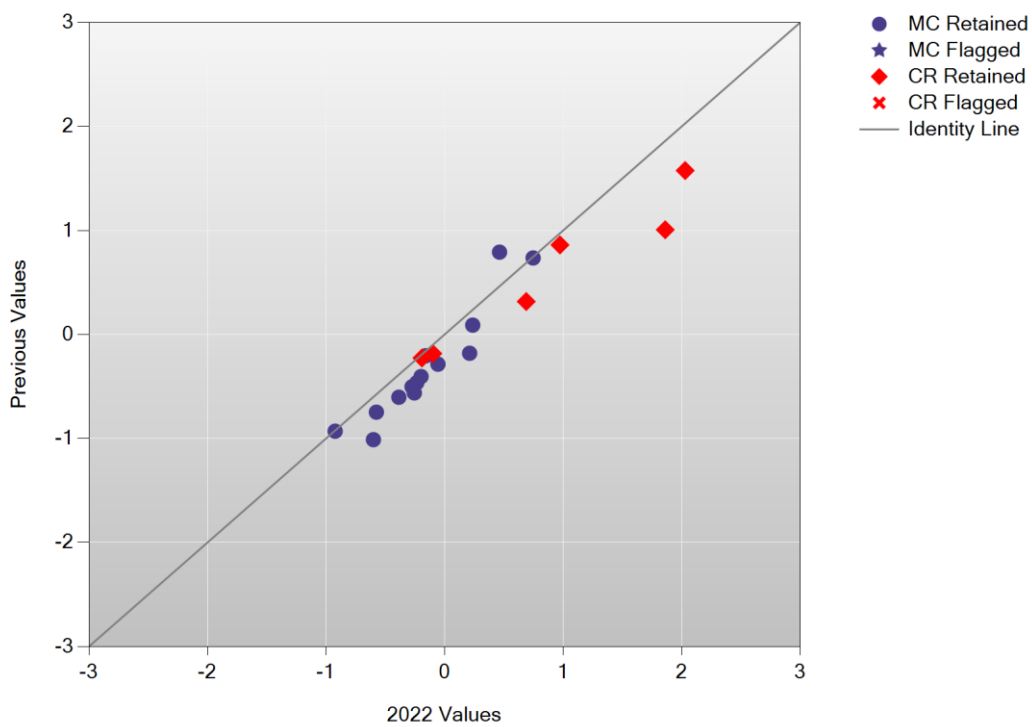
Section 2.1

A/A, B/B, Beta, Delta, Test Characteristic Curve, Test Information Function, and Cumulative Scale Score Distribution Plots

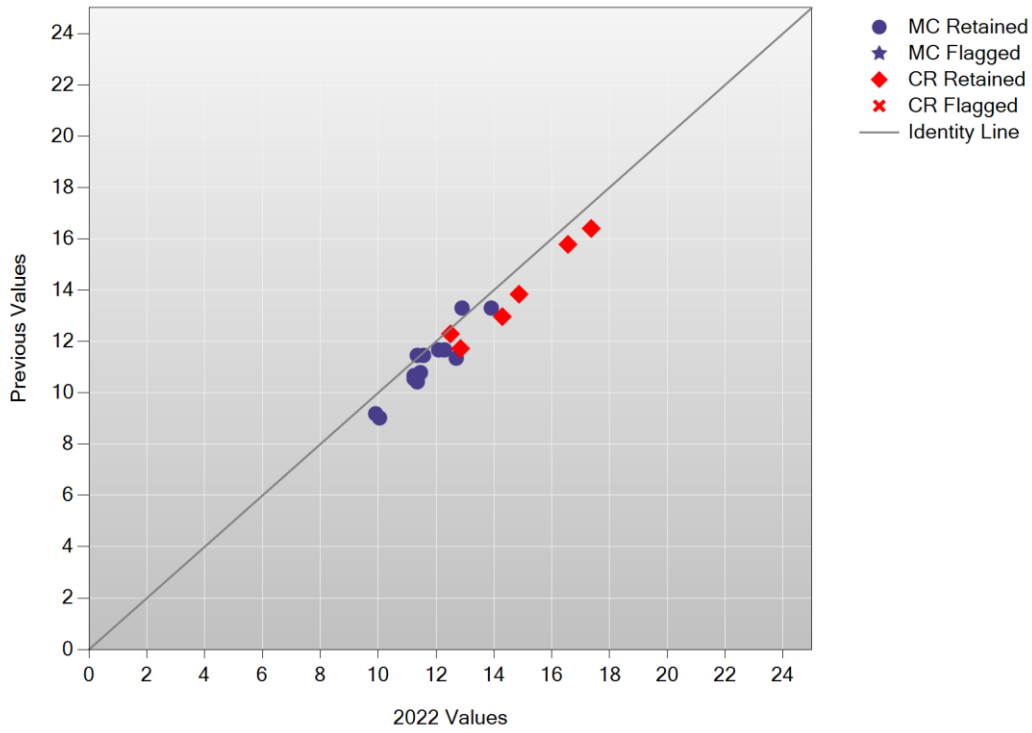
A/A Plot: English Language Arts Grade 3



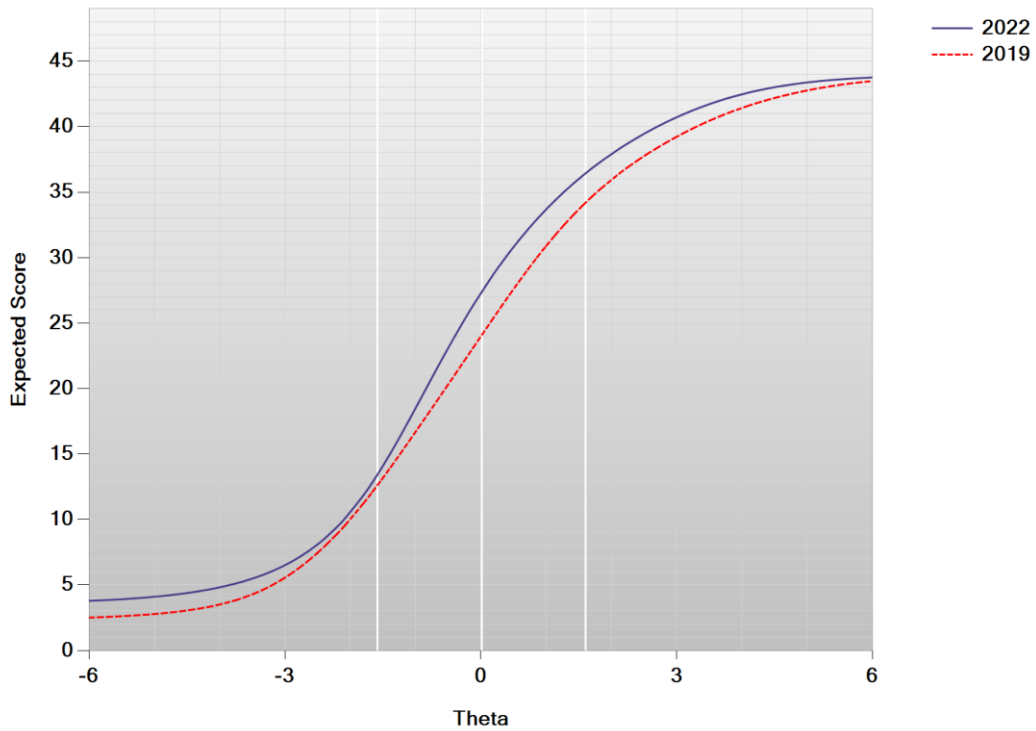
B/B Plot: English Language Arts Grade 3



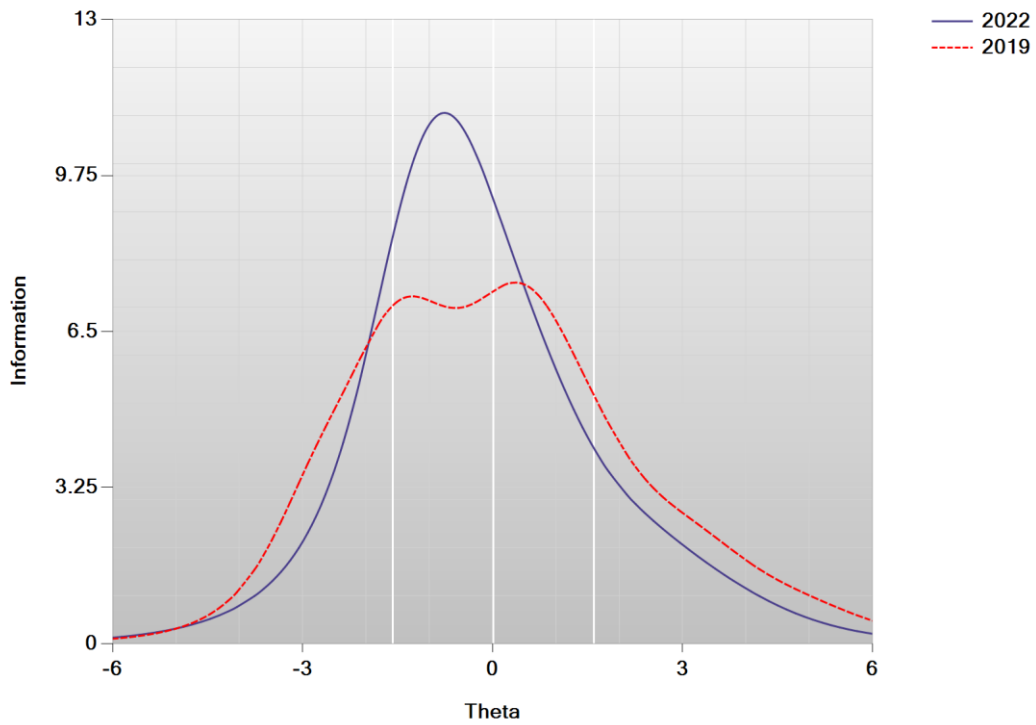
Delta Plot: English Language Arts Grade 3



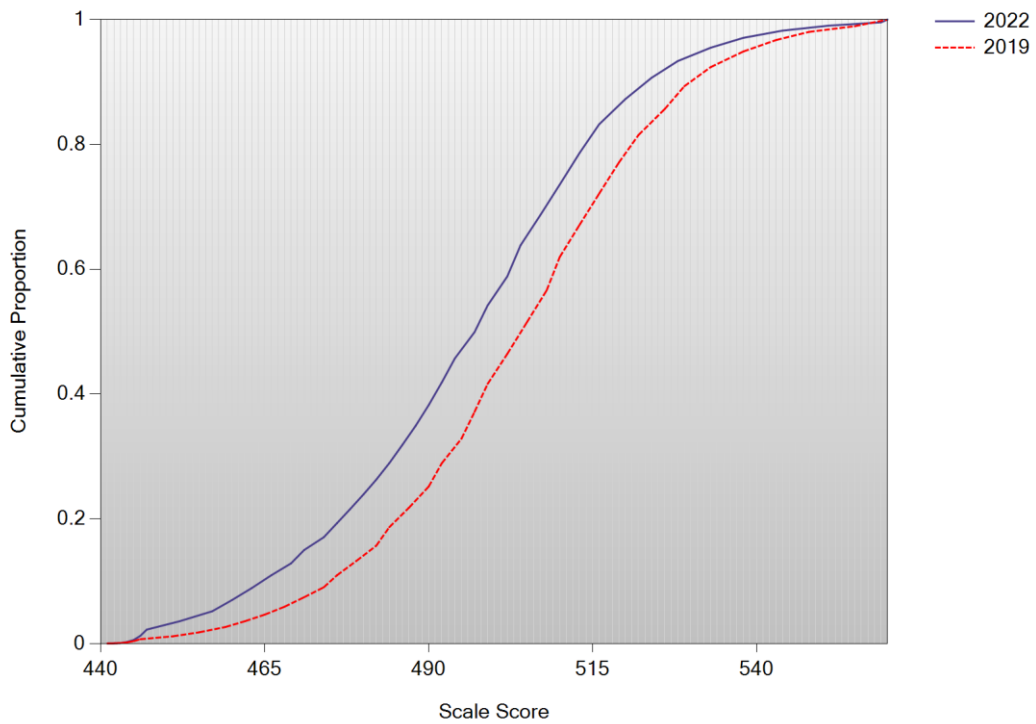
Test Characteristic Curve: English Language Arts Grade 3



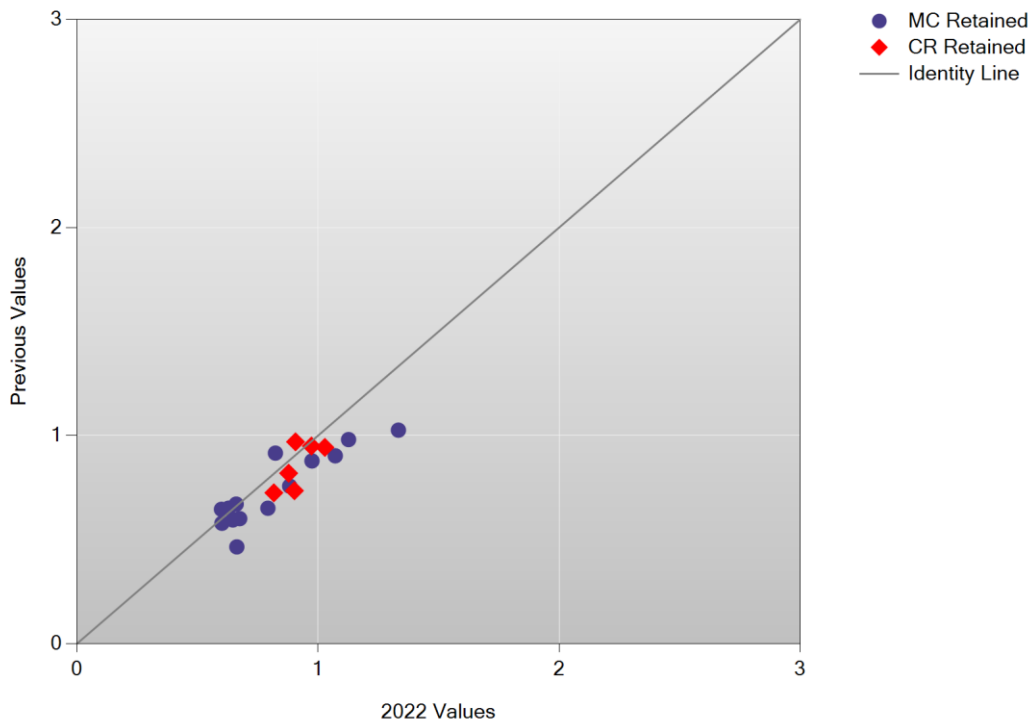
Test Information Function: English Language Arts Grade 3



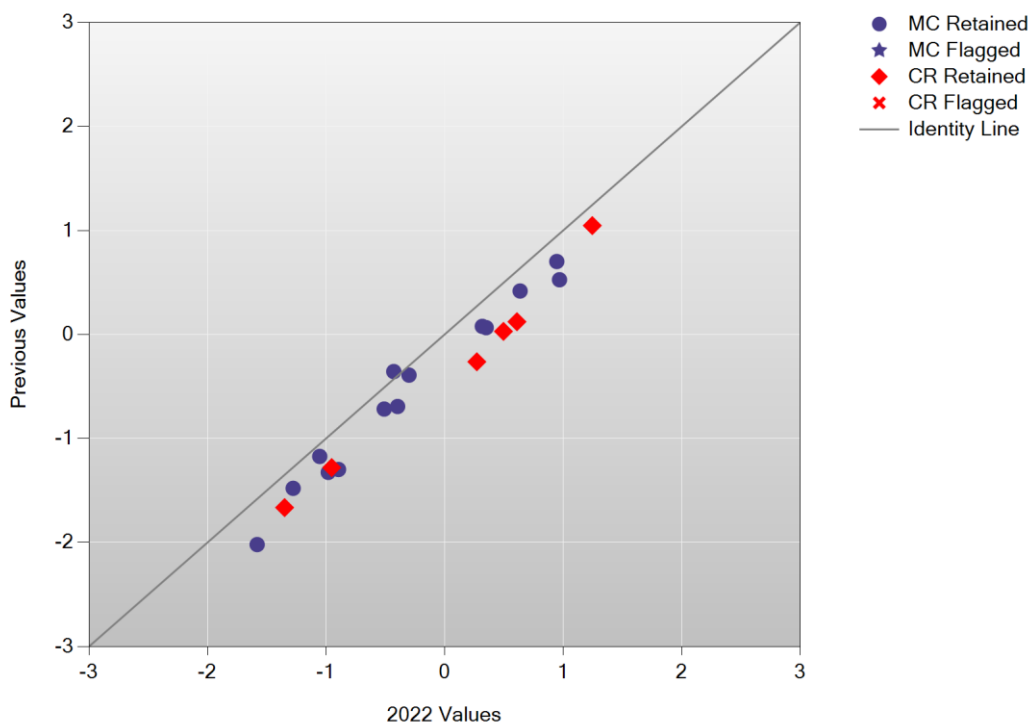
Cumulative Scale Score Distributions: English Language Arts Grade 3



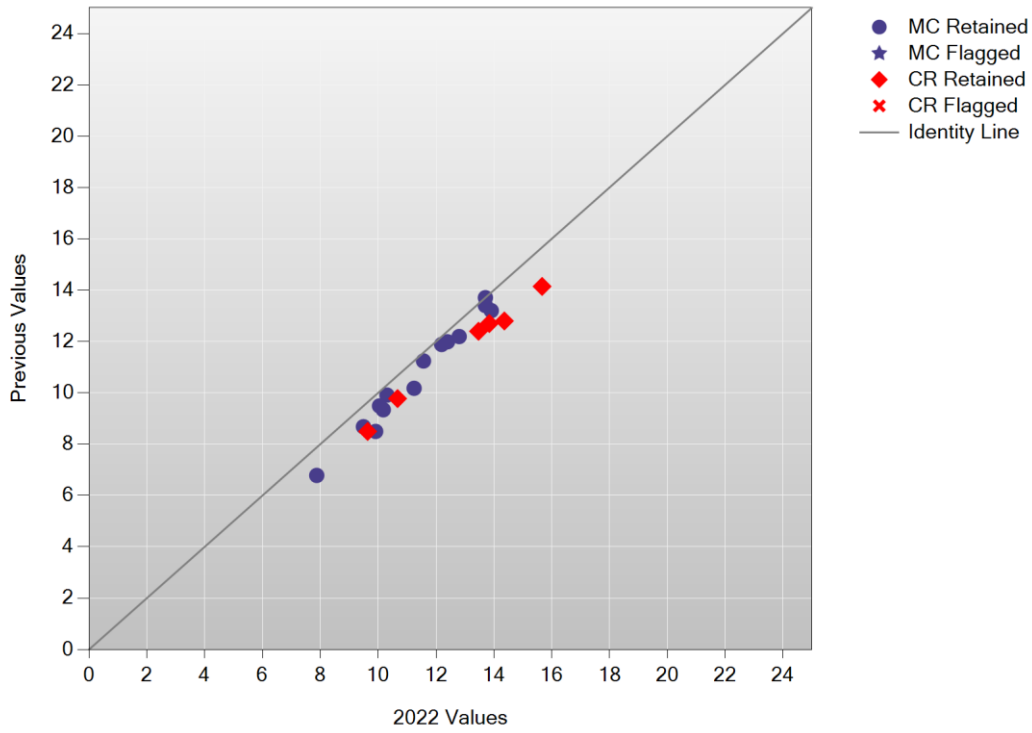
A/A Plot: English Language Arts Grade 4



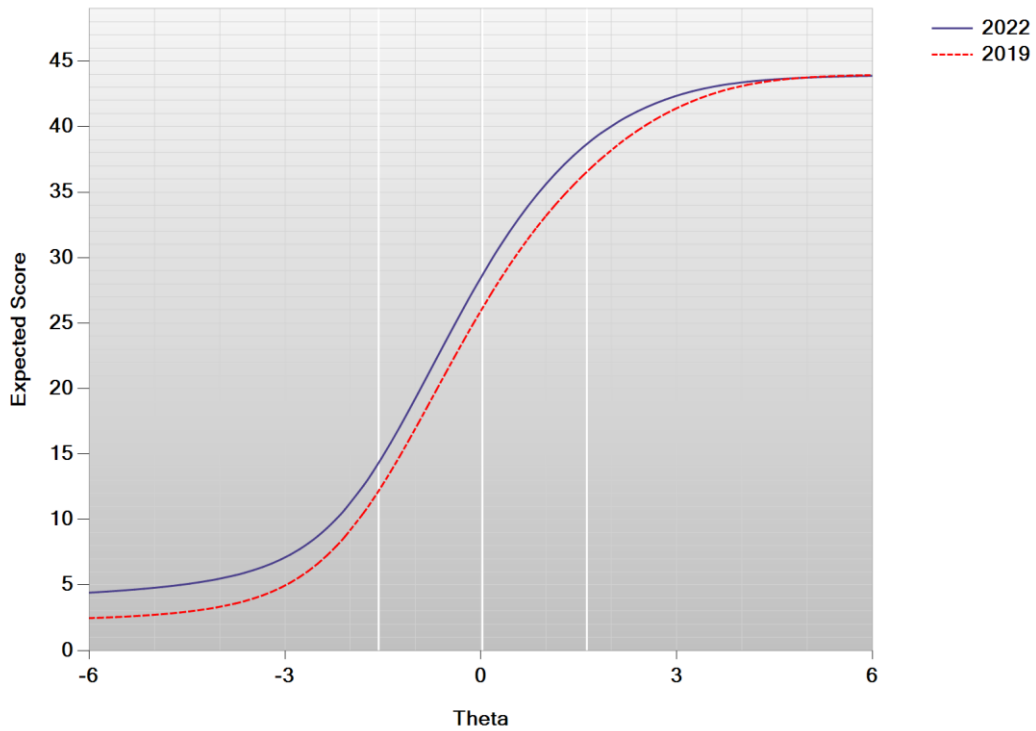
B/B Plot: English Language Arts Grade 4



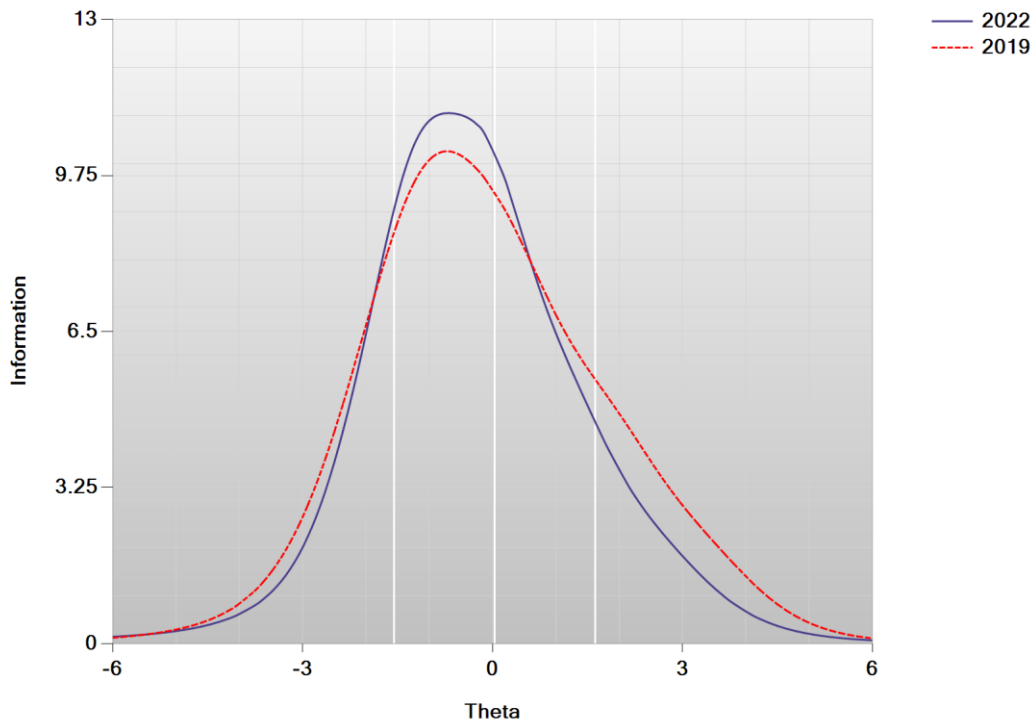
Delta Plot: English Language Arts Grade 4



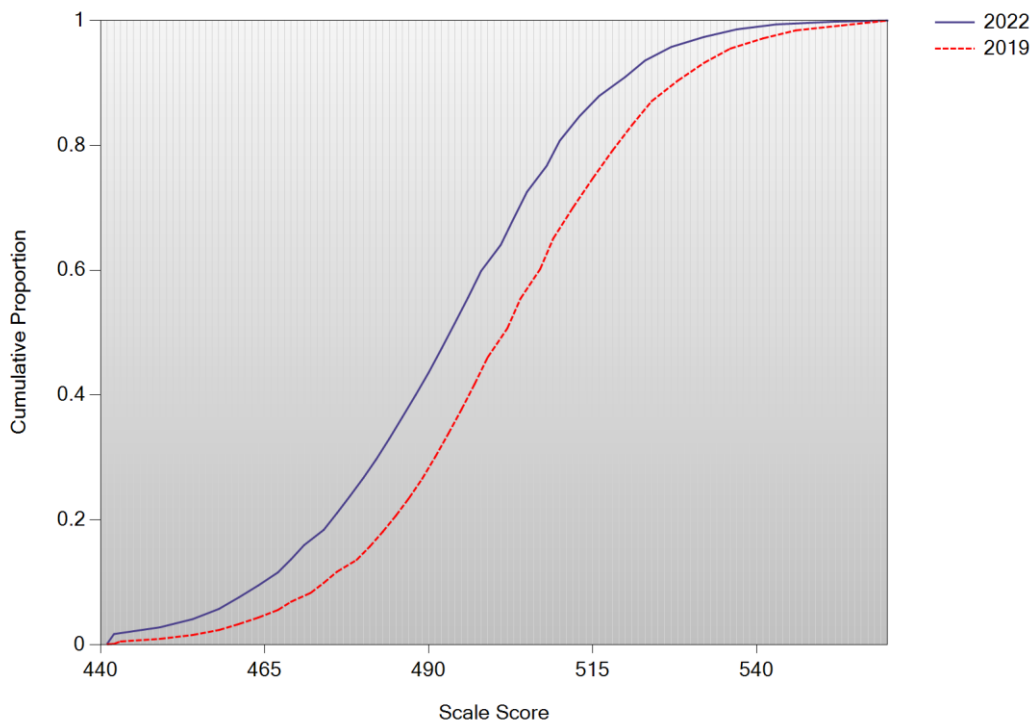
Test Characteristic Curve: English Language Arts Grade 4



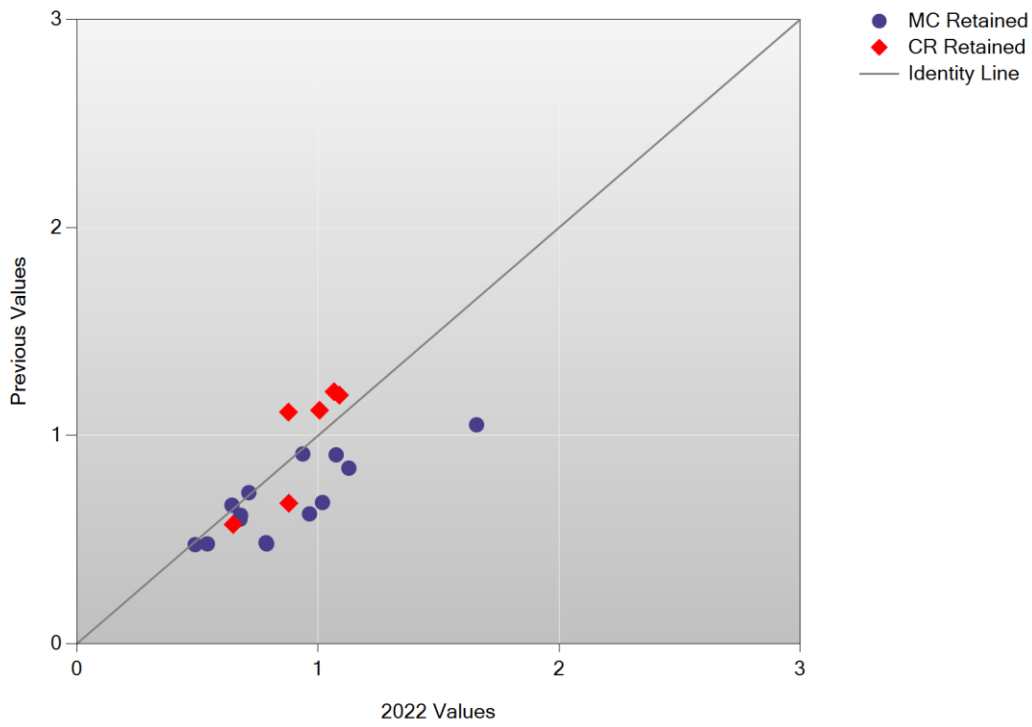
Test Information Function: English Language Arts Grade 4



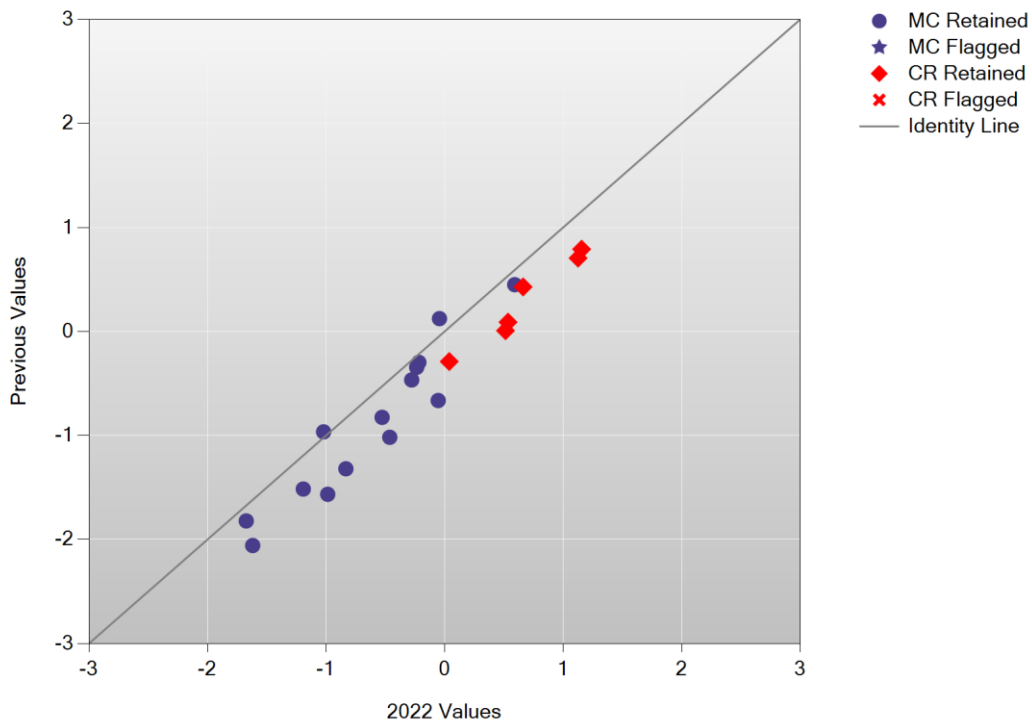
Cumulative Scale Score Distributions: English Language Arts Grade 4



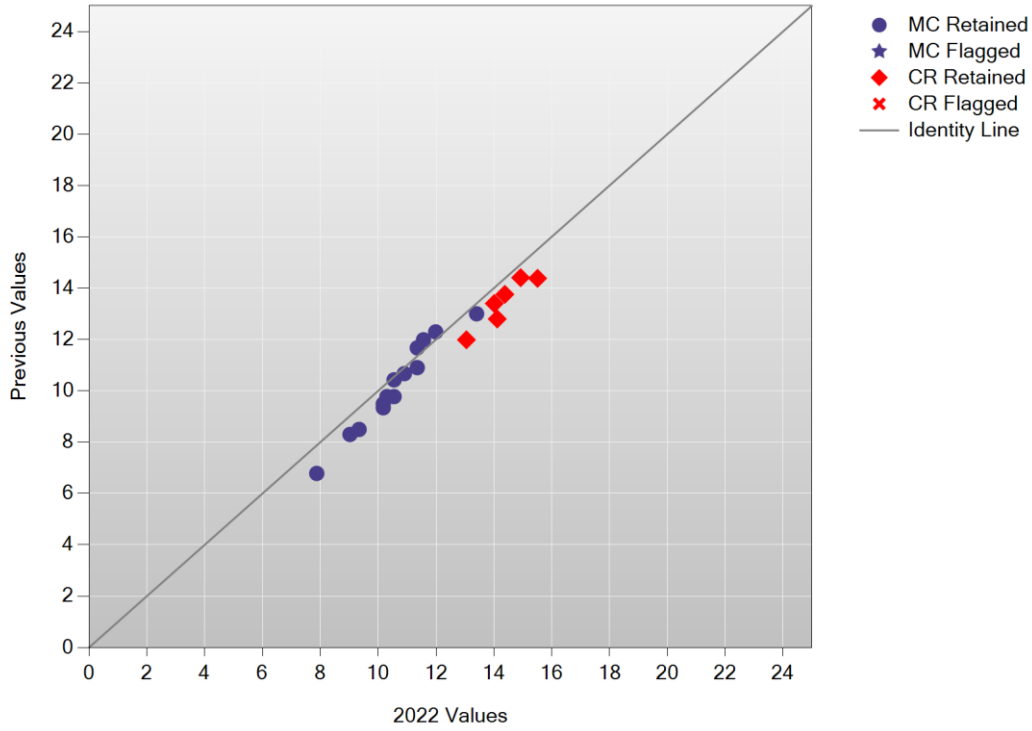
A/A Plot: English Language Arts Grade 5



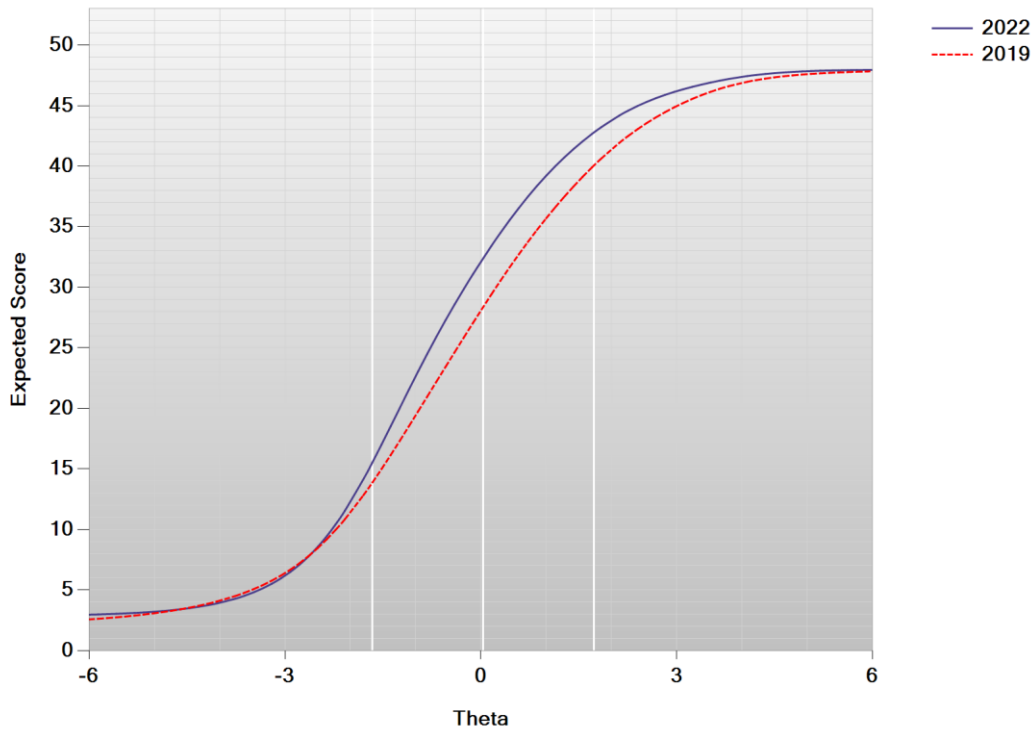
B/B Plot: English Language Arts Grade 5



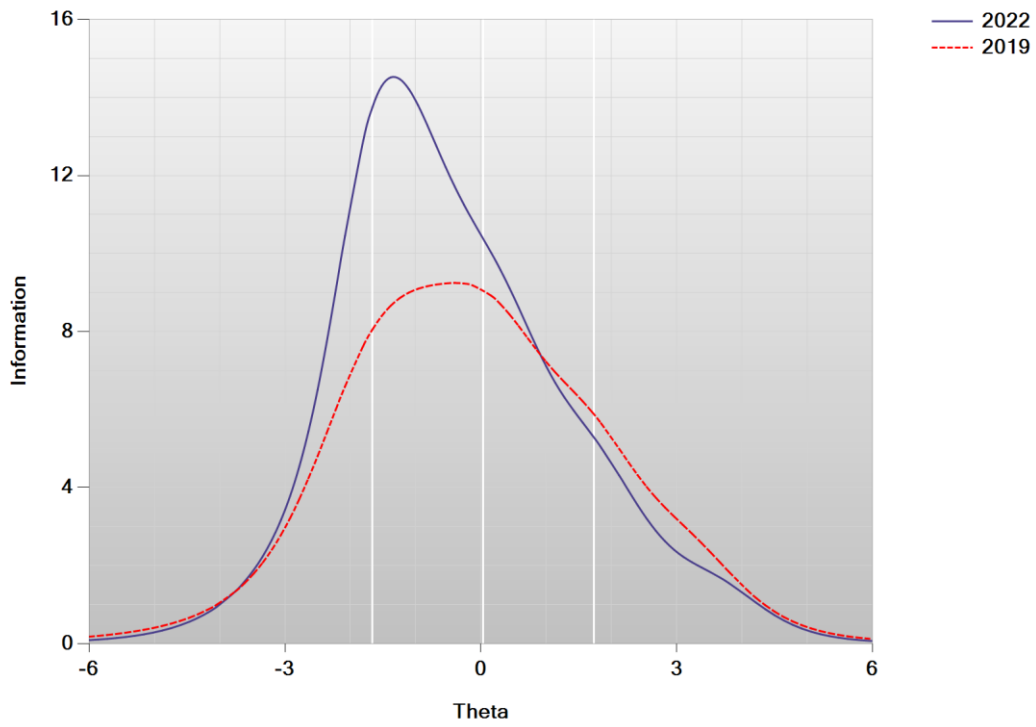
Delta Plot: English Language Arts Grade 5



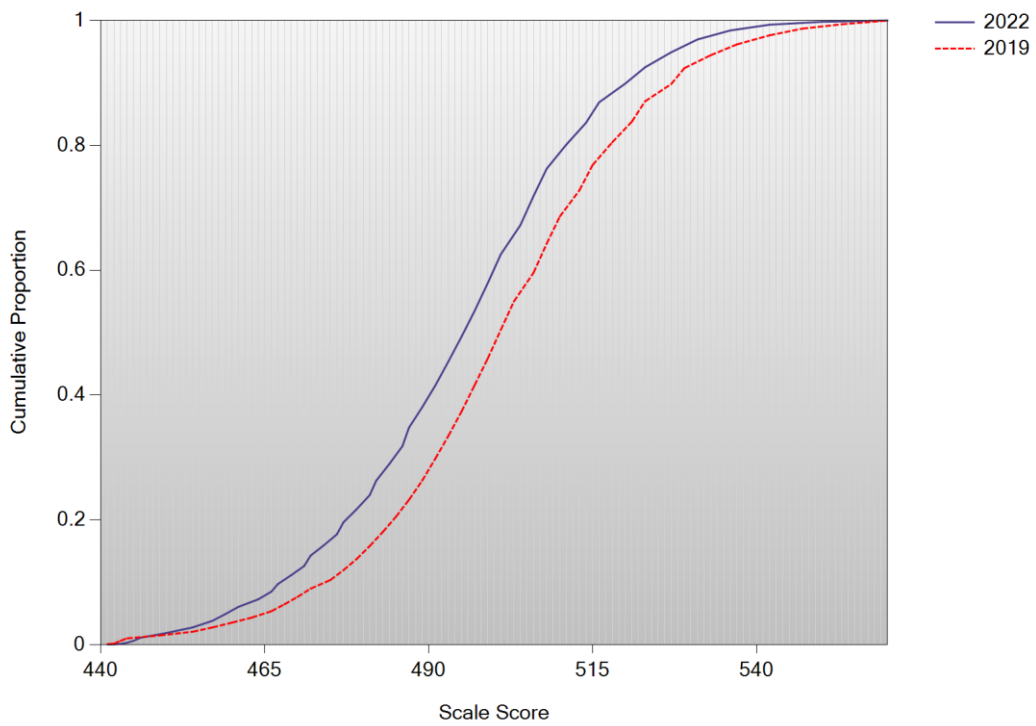
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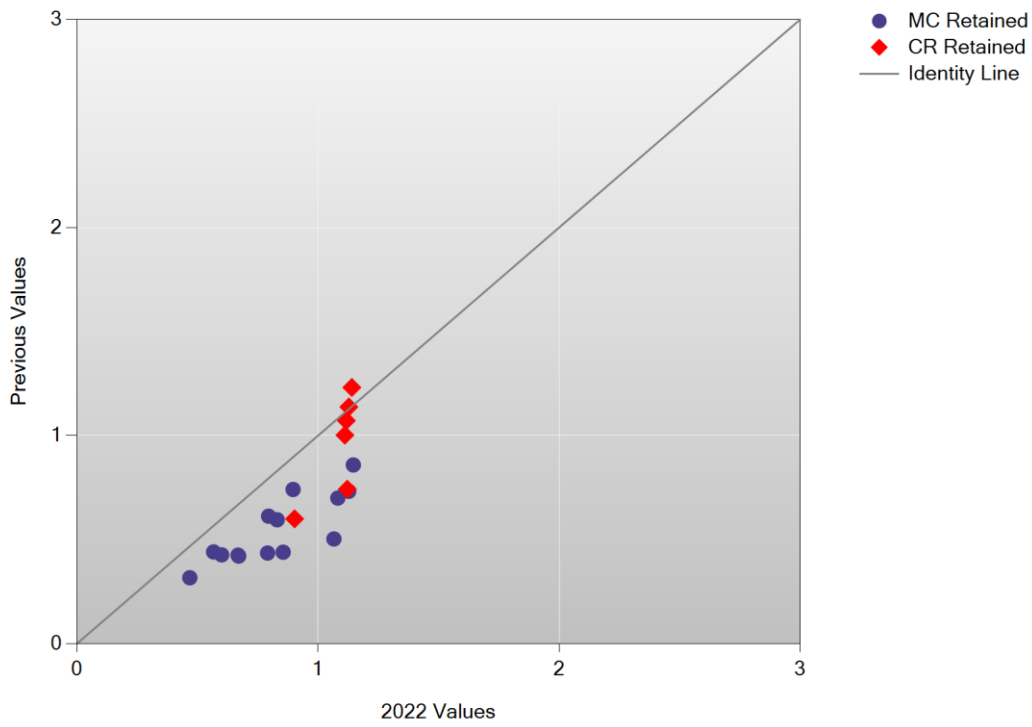
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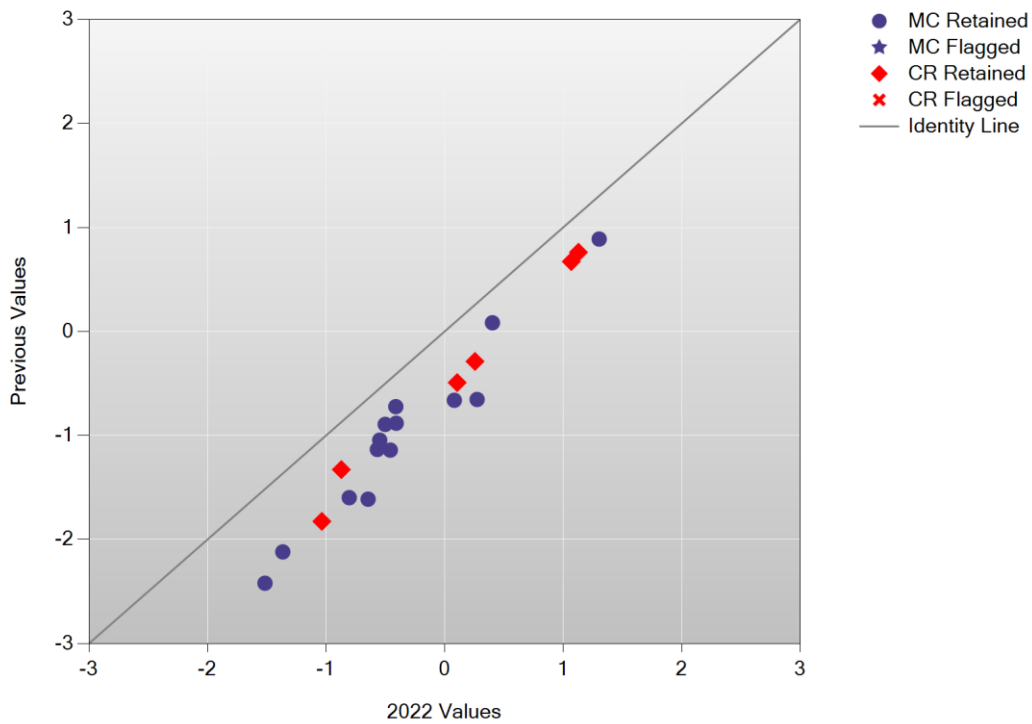
Cumulative Scale Score Distributions: English Language Arts Grade 5



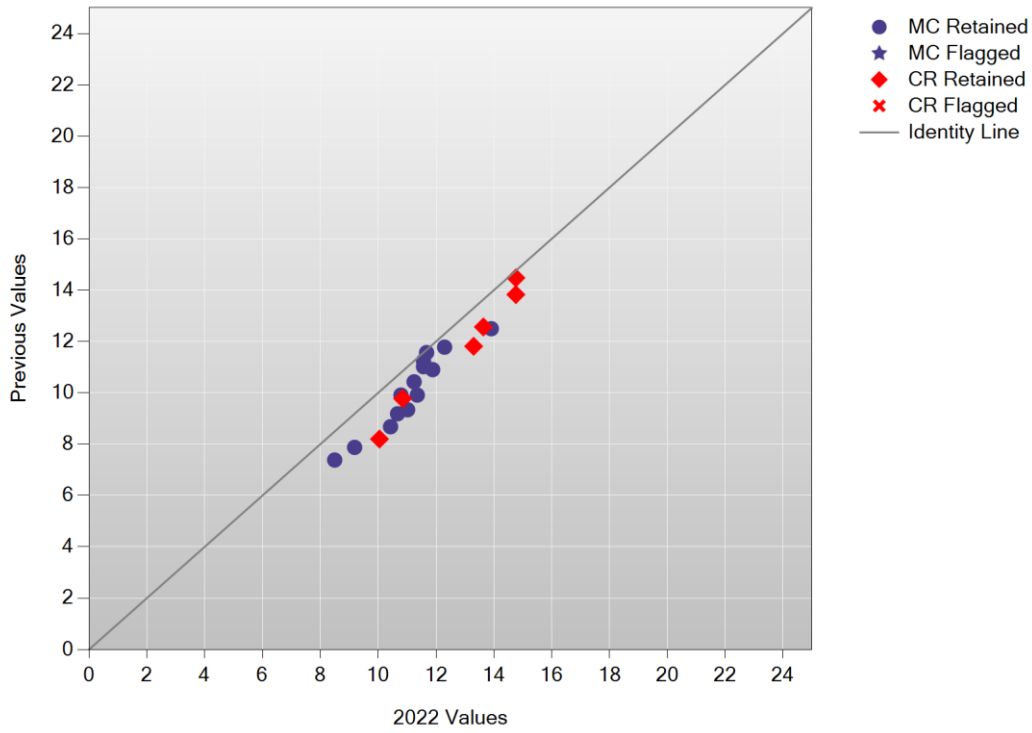
A/A Plot: English Language Arts Grade 6



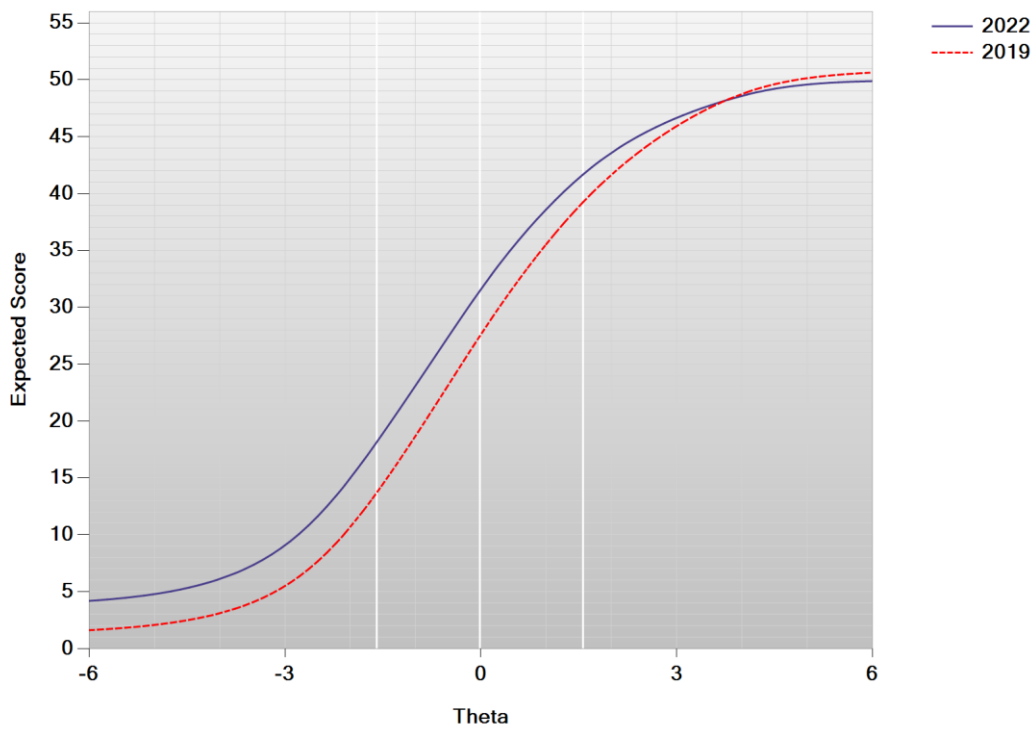
B/B Plot: English Language Arts Grade 6



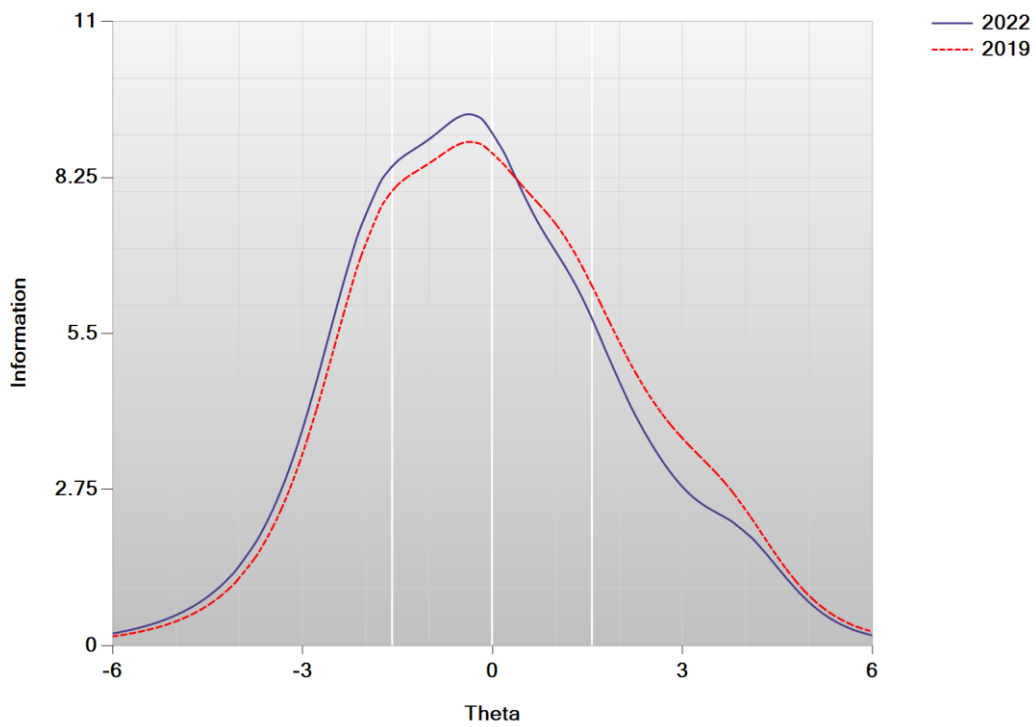
Delta Plot: English Language Arts Grade 6



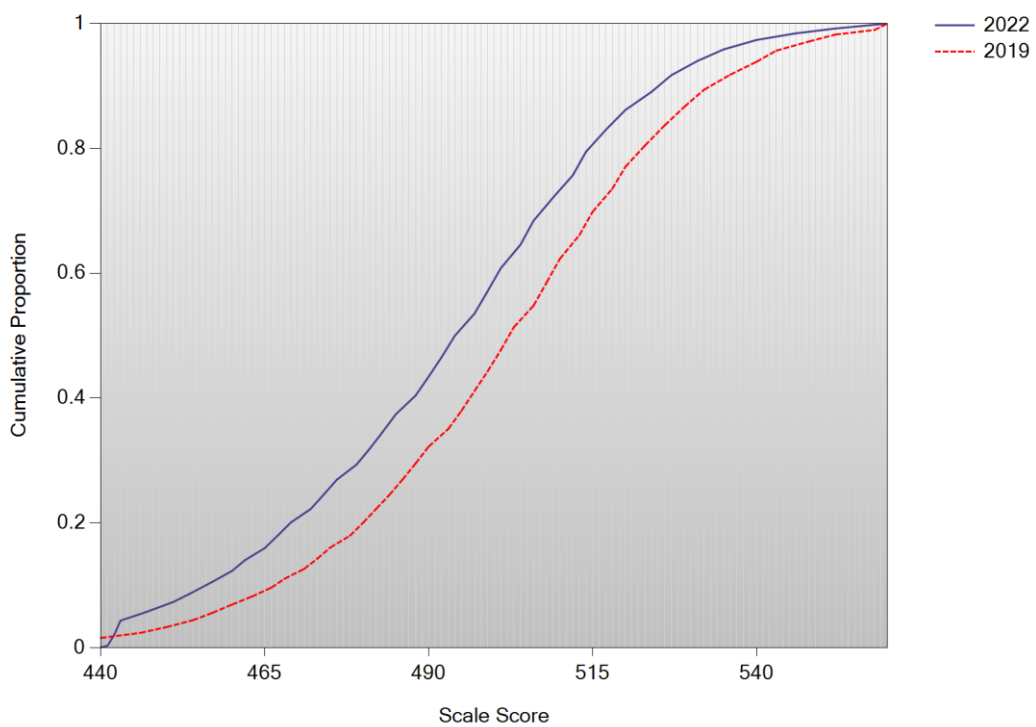
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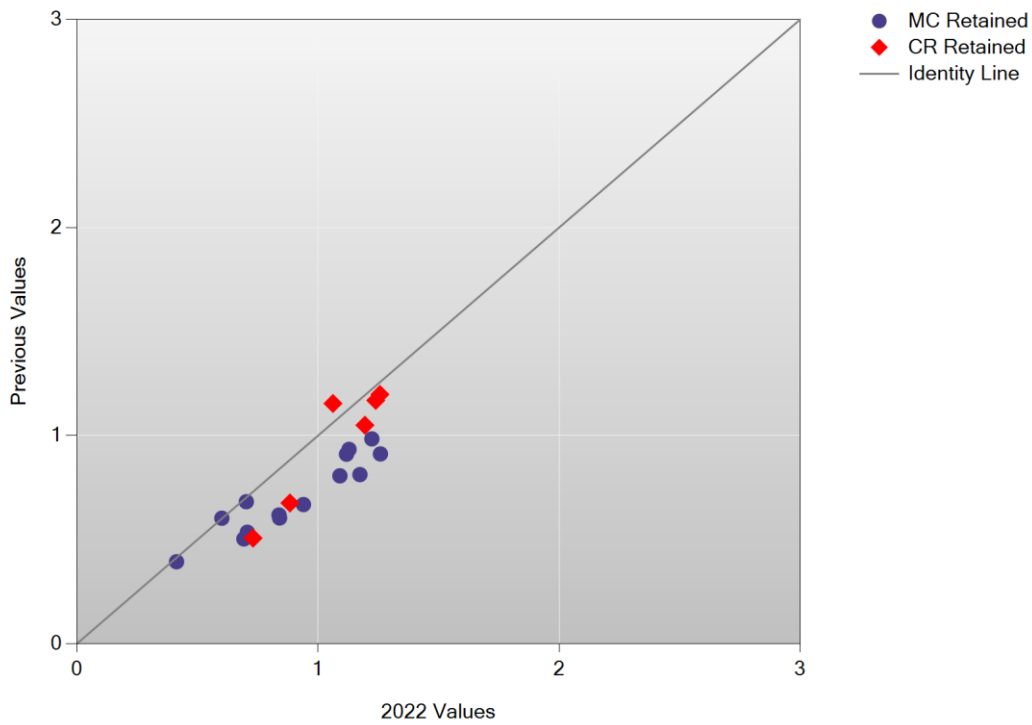
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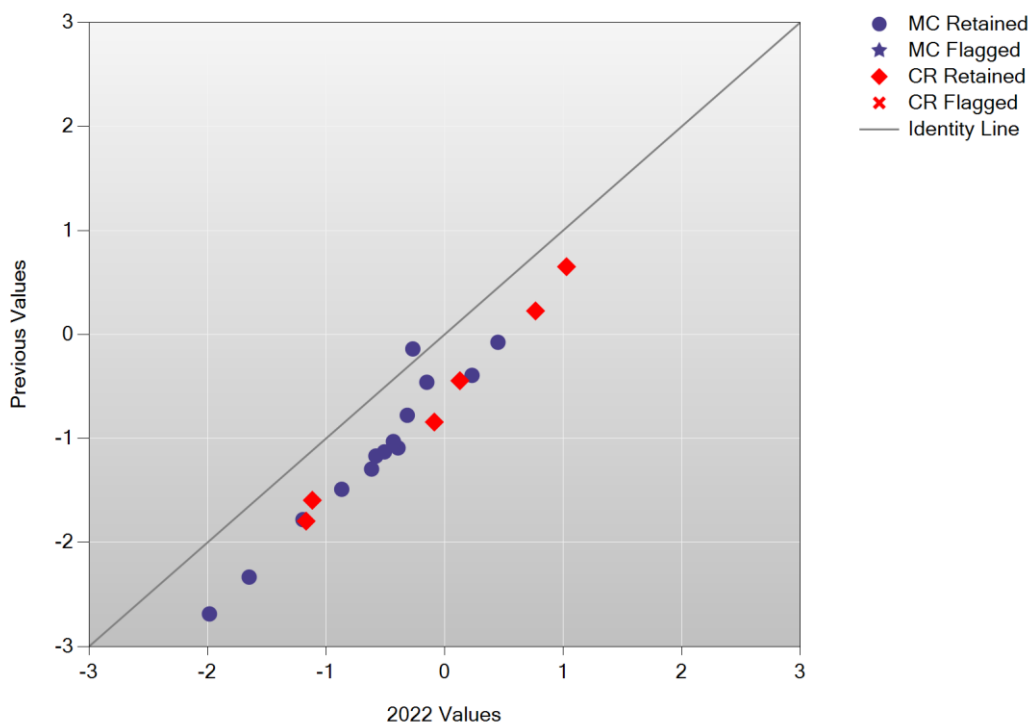
Cumulative Scale Score Distributions: English Language Arts Grade 6



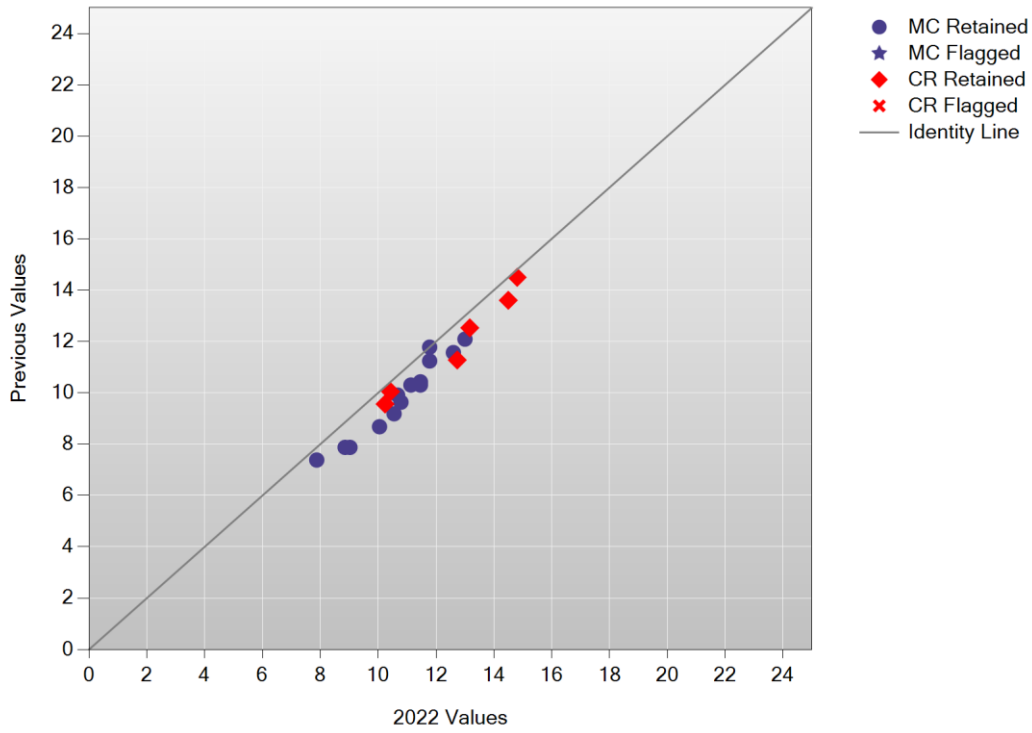
A/A Plot: English Language Arts Grade 7



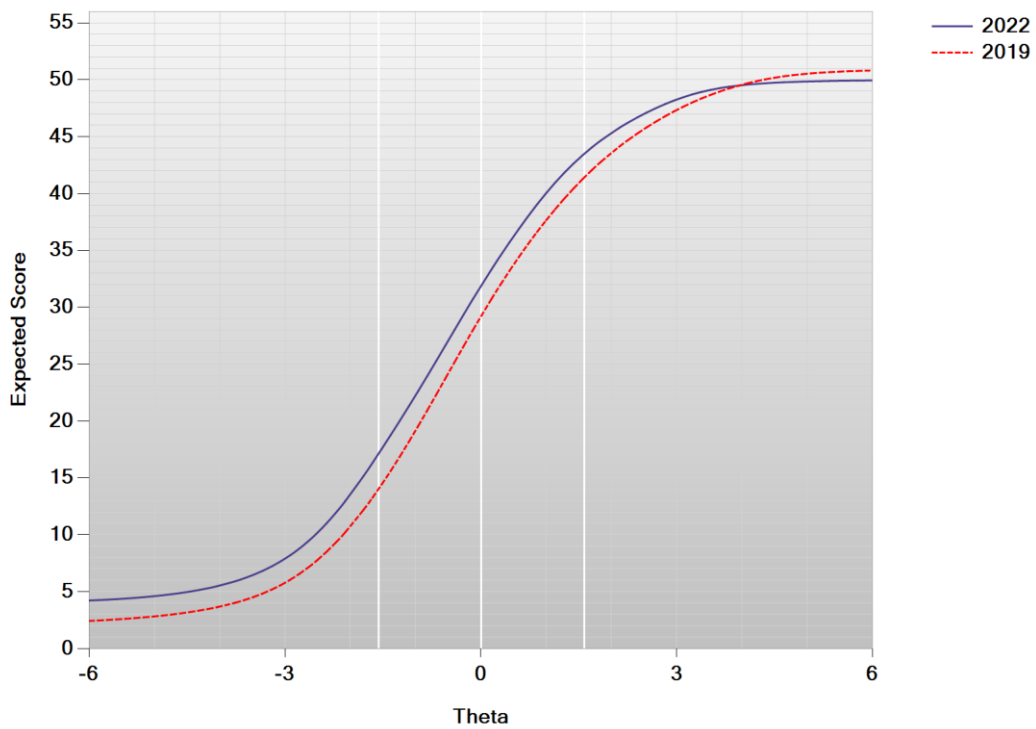
B/B Plot: English Language Arts Grade 7



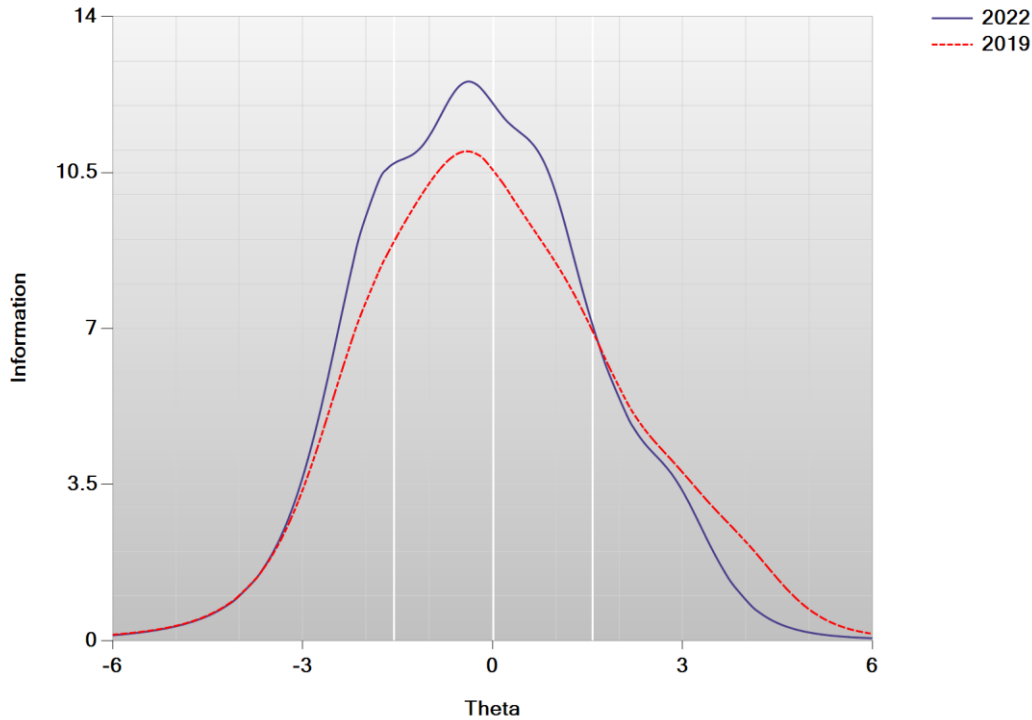
Delta Plot: English Language Arts Grade 7



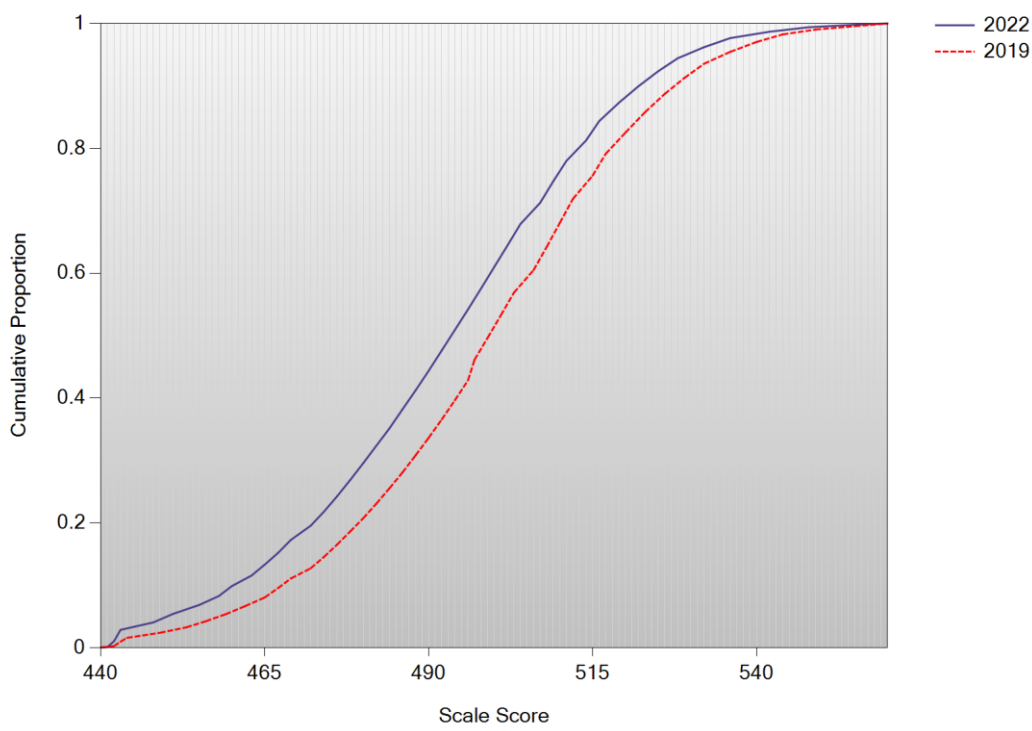
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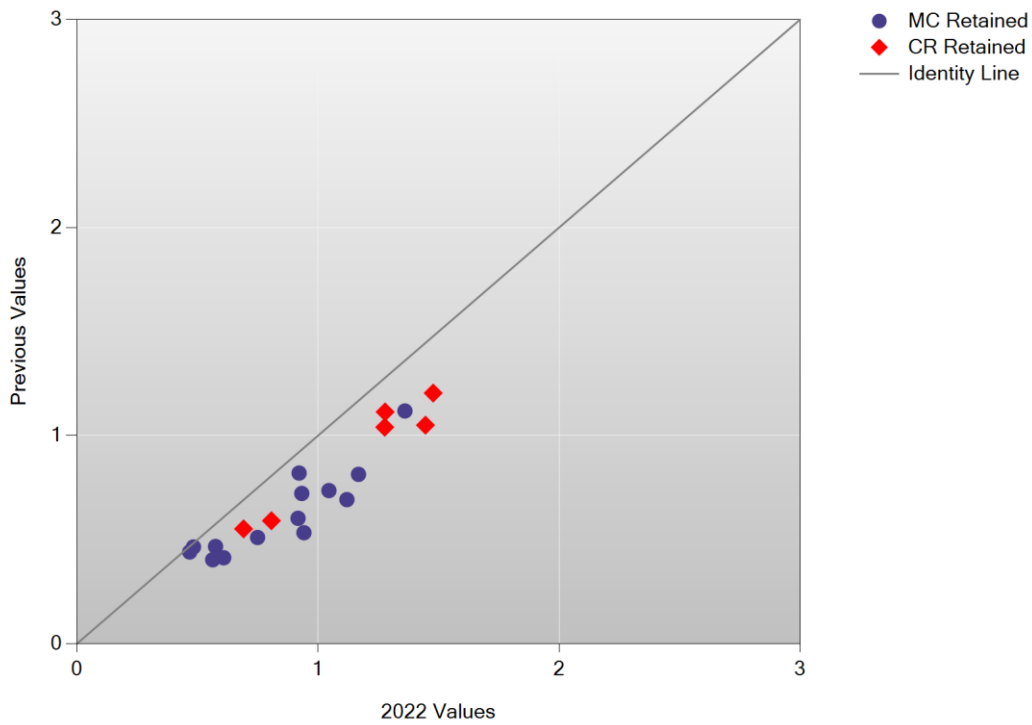
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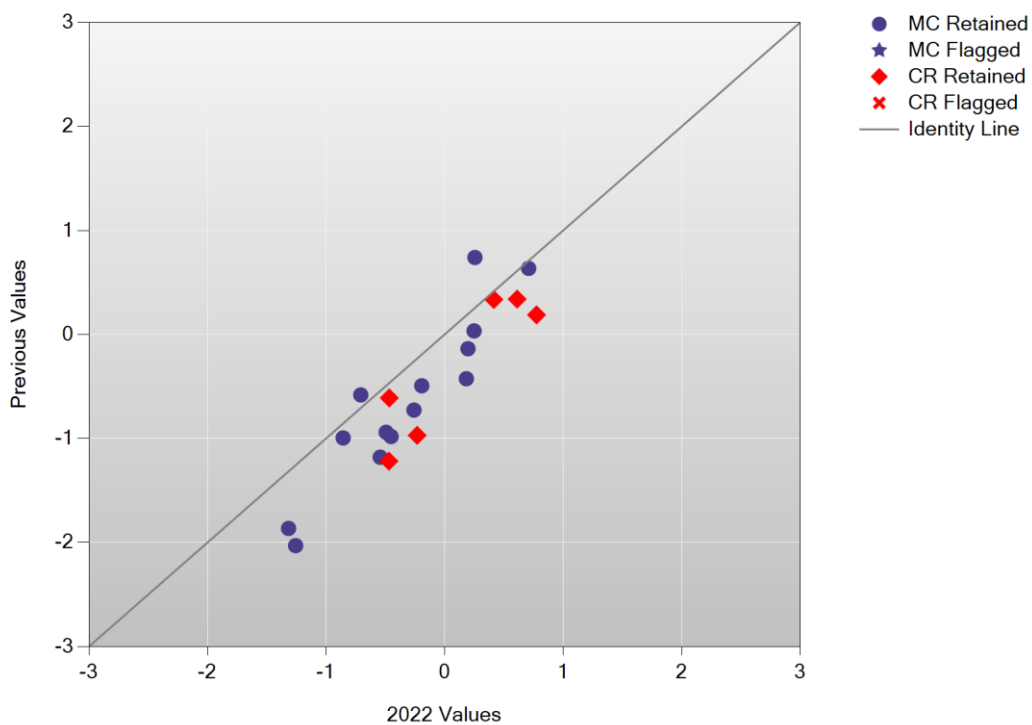
Cumulative Scale Score Distributions: English Language Arts Grade 7



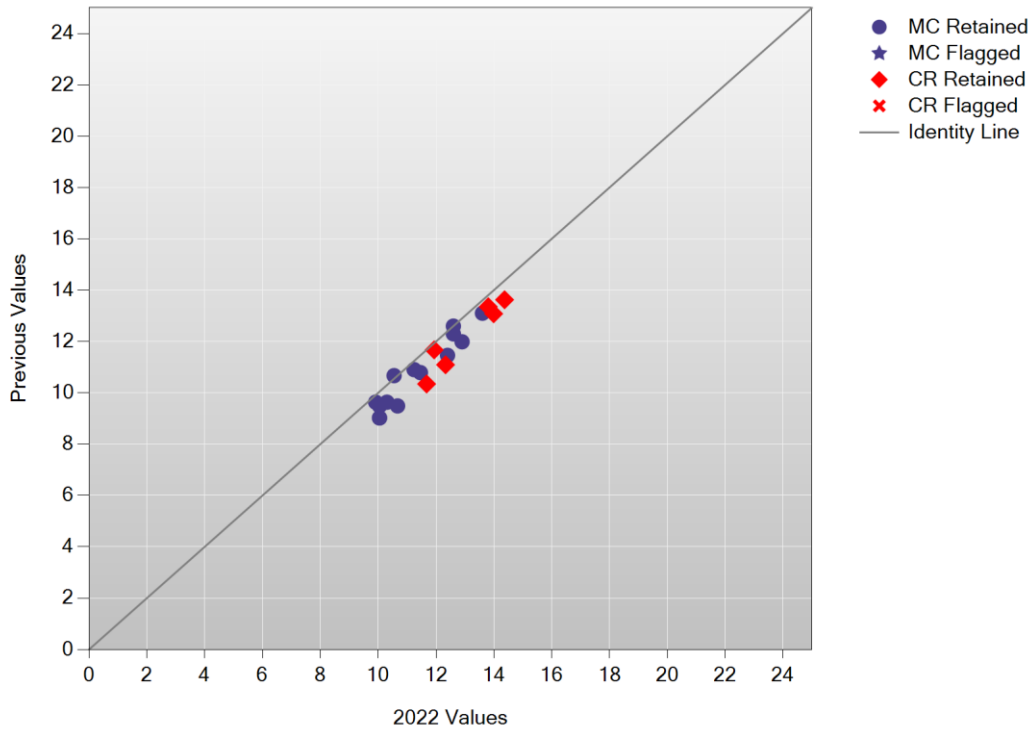
A/A Plot: English Language Arts Grade 8



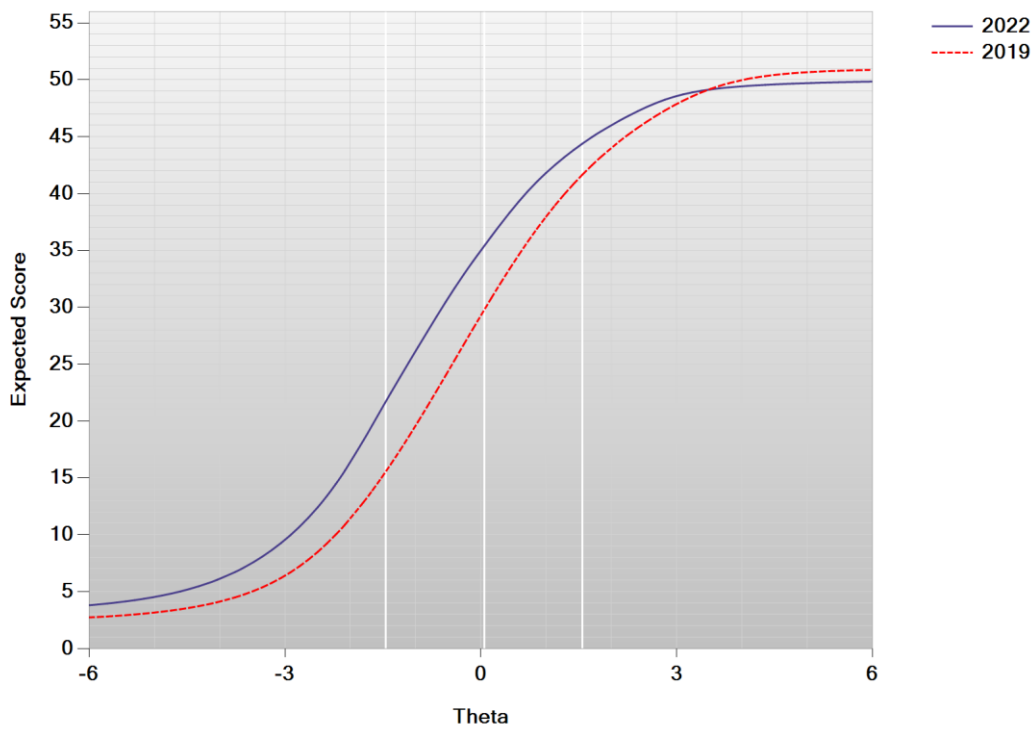
B/B Plot: English Language Arts Grade 8



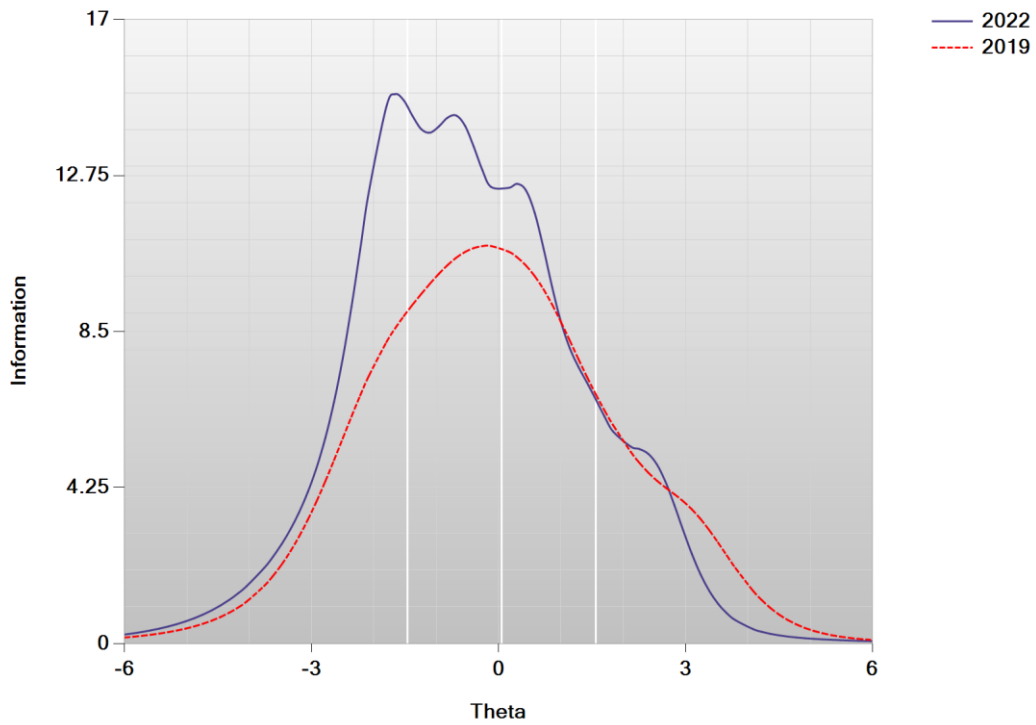
Delta Plot: English Language Arts Grade 8



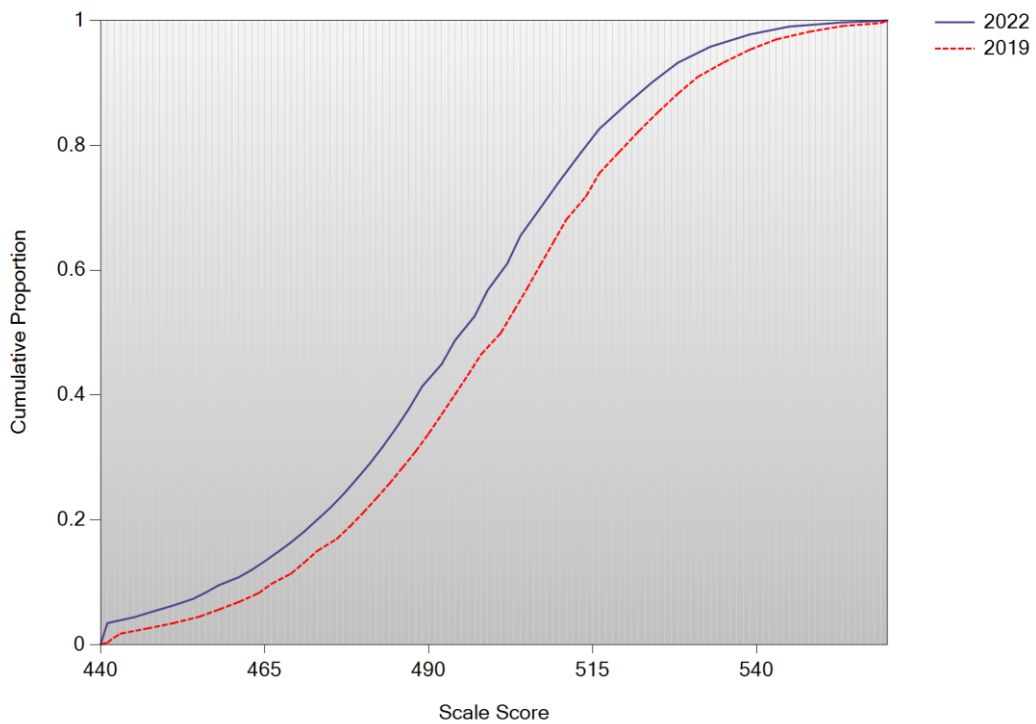
Test Characteristic Curve: English Language Arts Grade 8



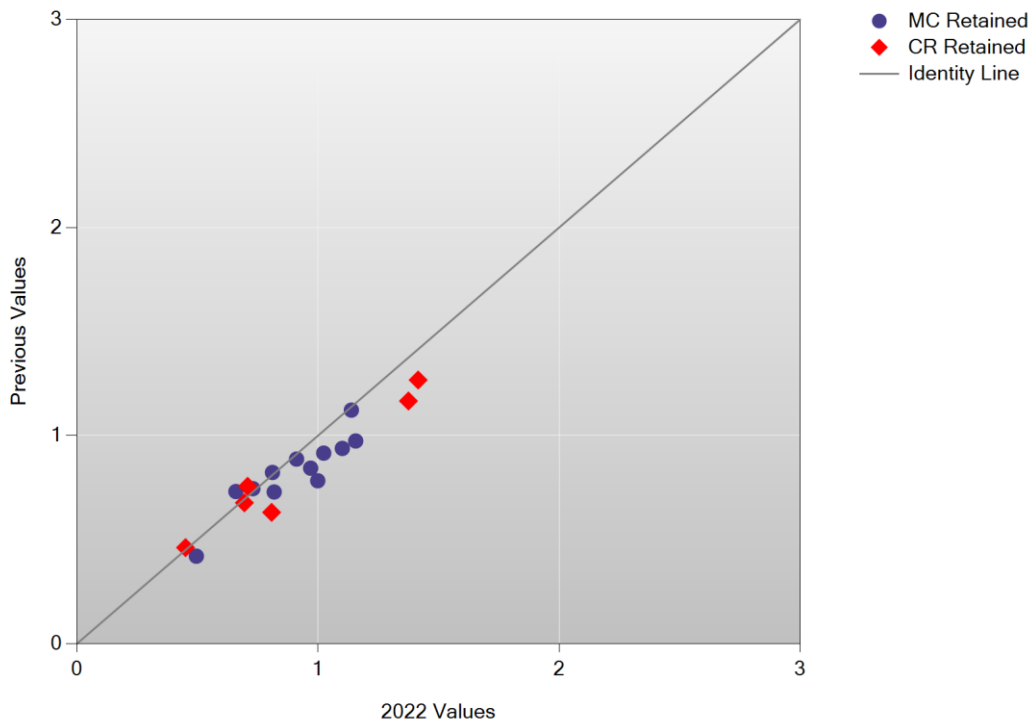
Test Information Function: English Language Arts Grade 8



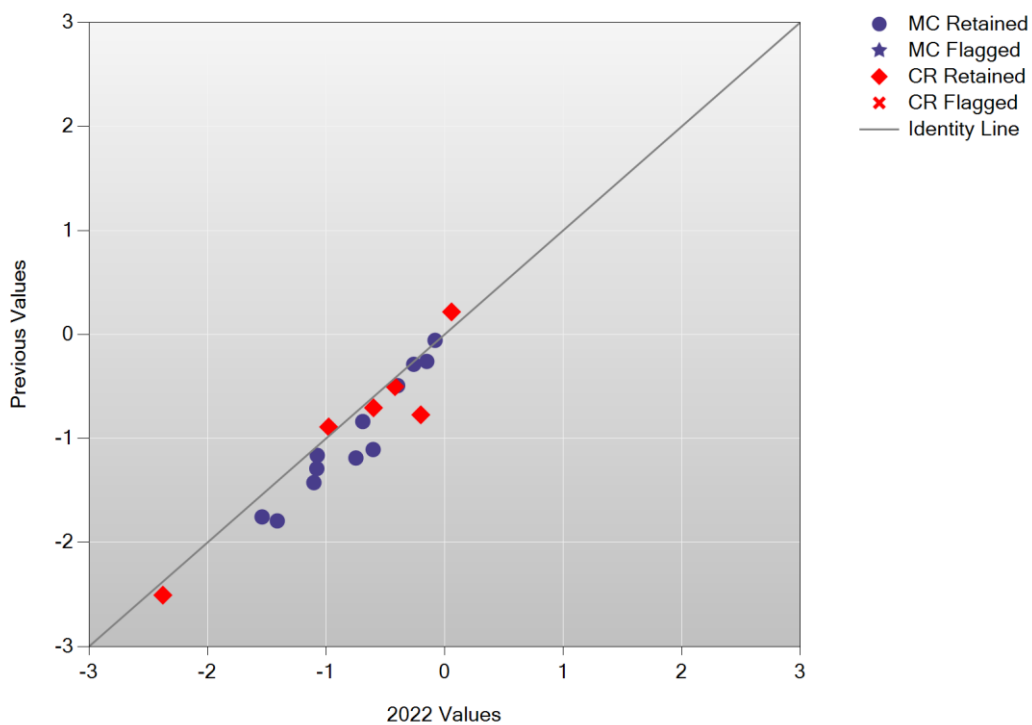
Cumulative Scale Score Distributions: English Language Arts Grade 8



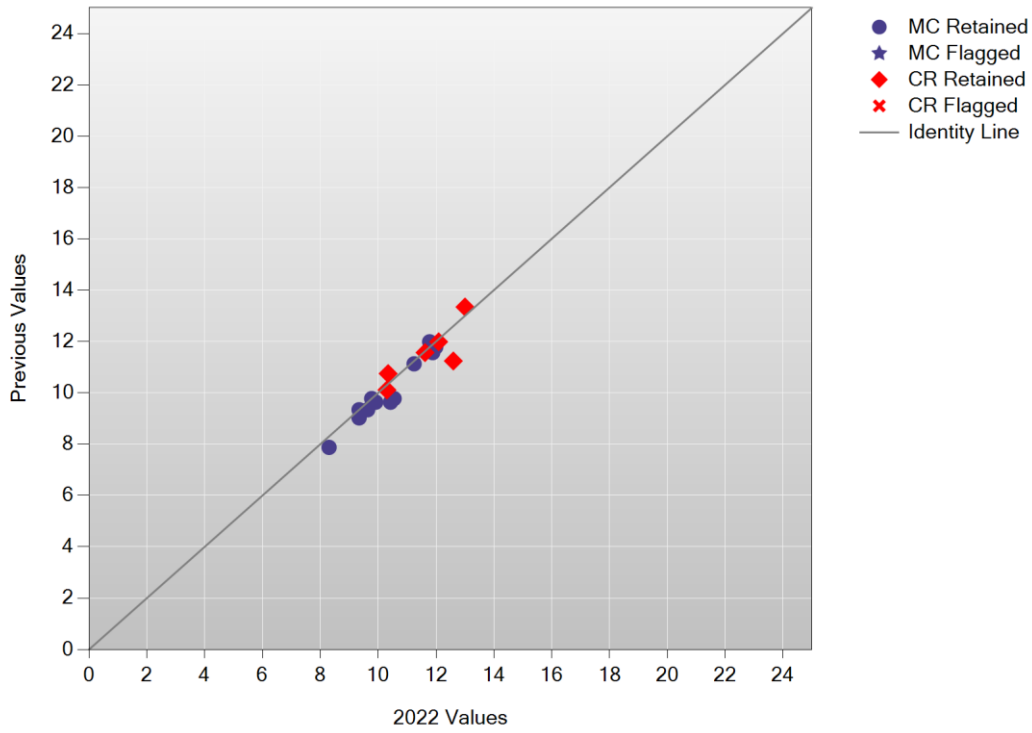
A/A Plot: English Language Arts Grade 10



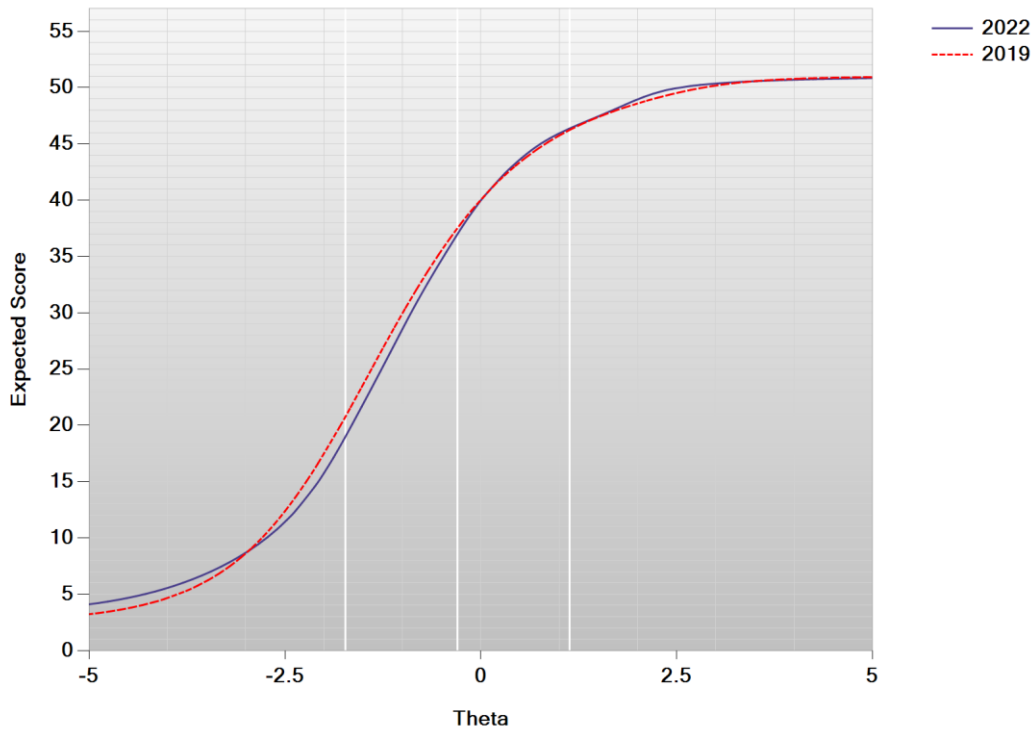
B/B Plot: English Language Arts Grade 10



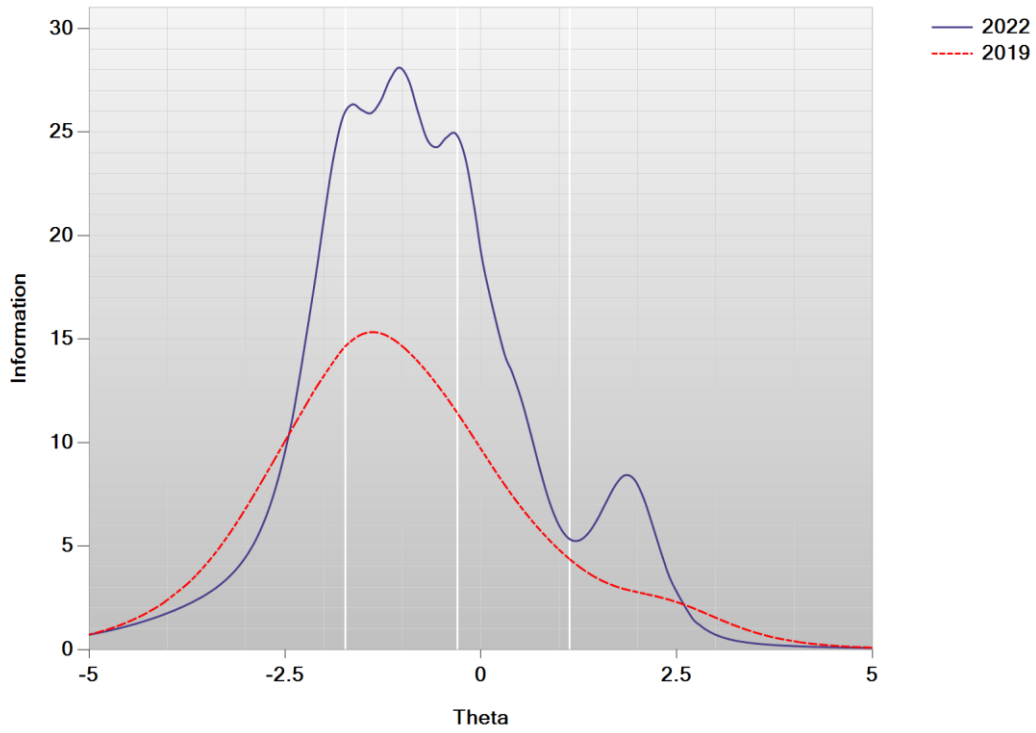
Delta Plot: English Language Arts Grade 10



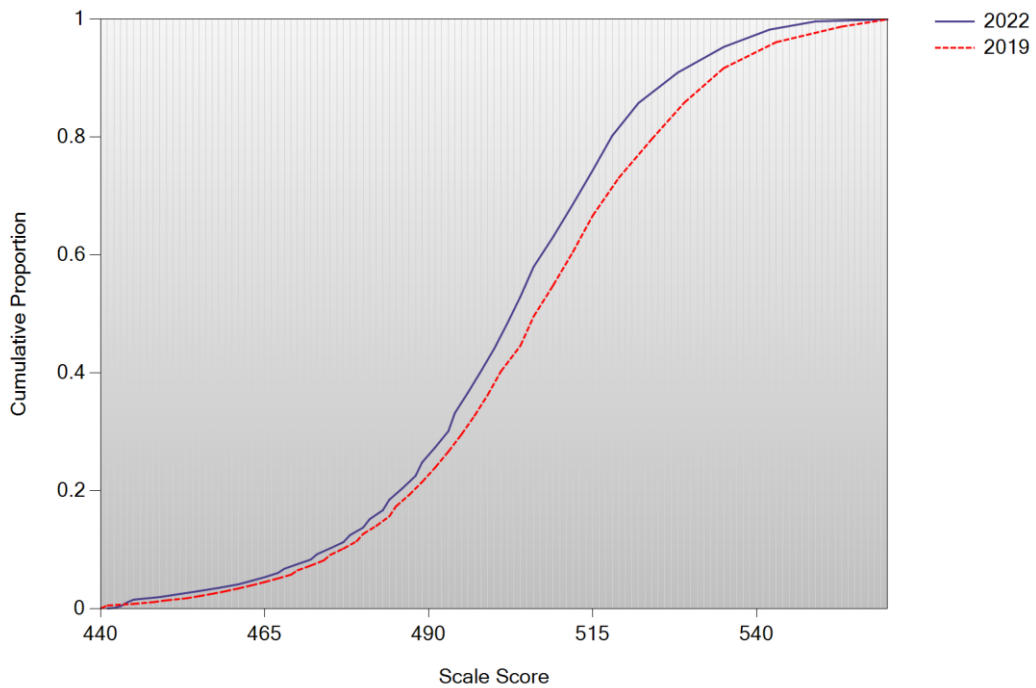
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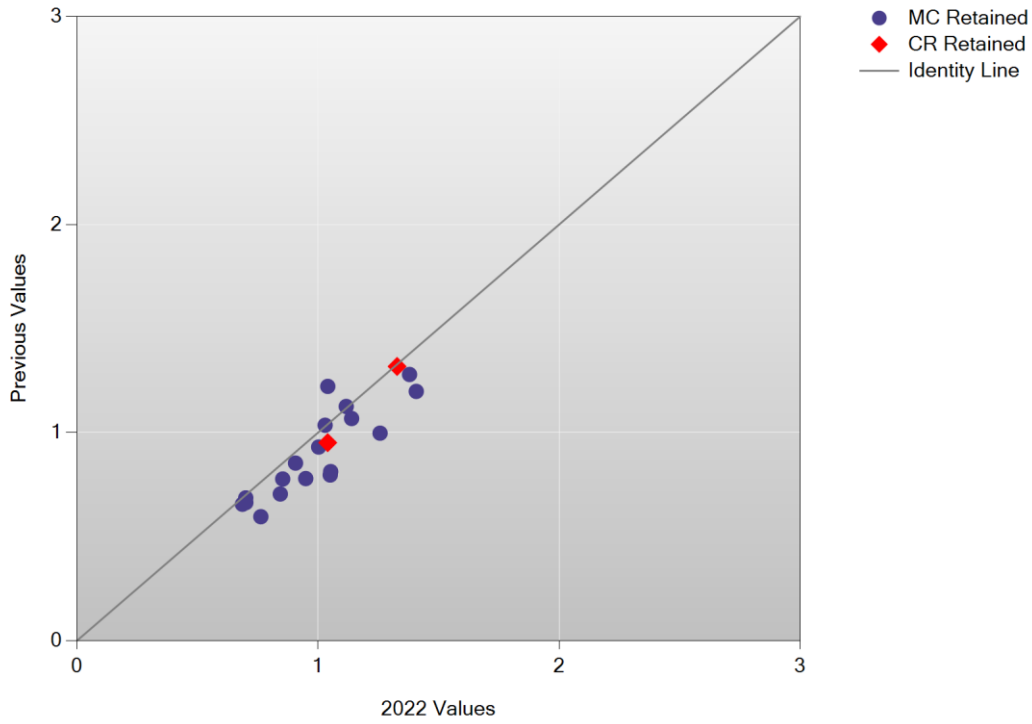
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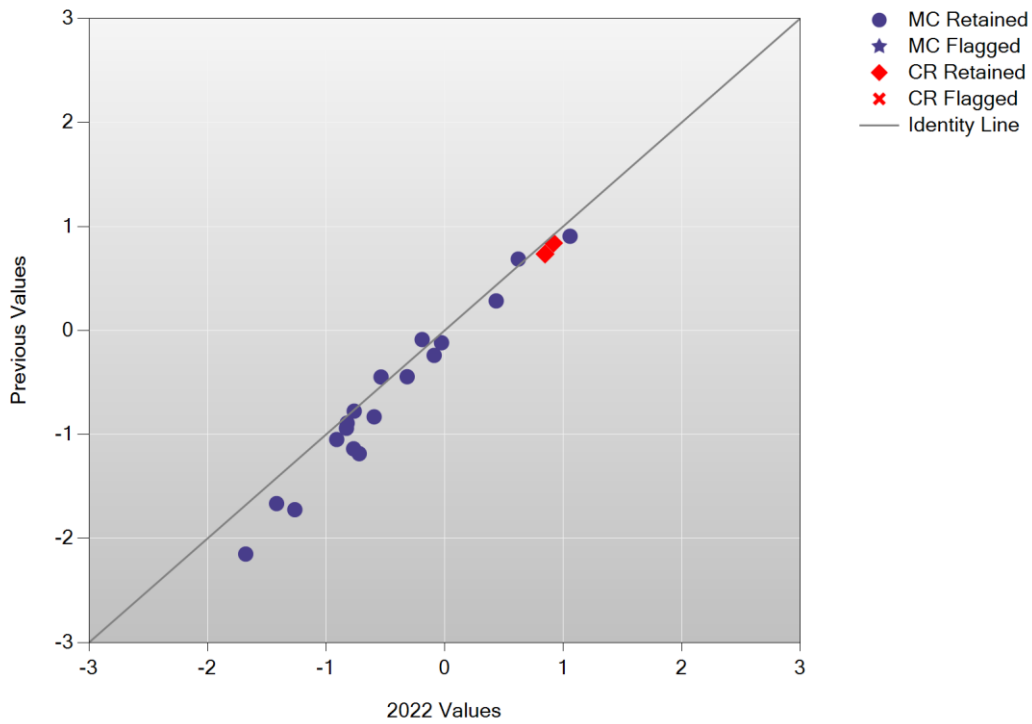
Cumulative Scale Score Distributions: English Language Arts Grade 10



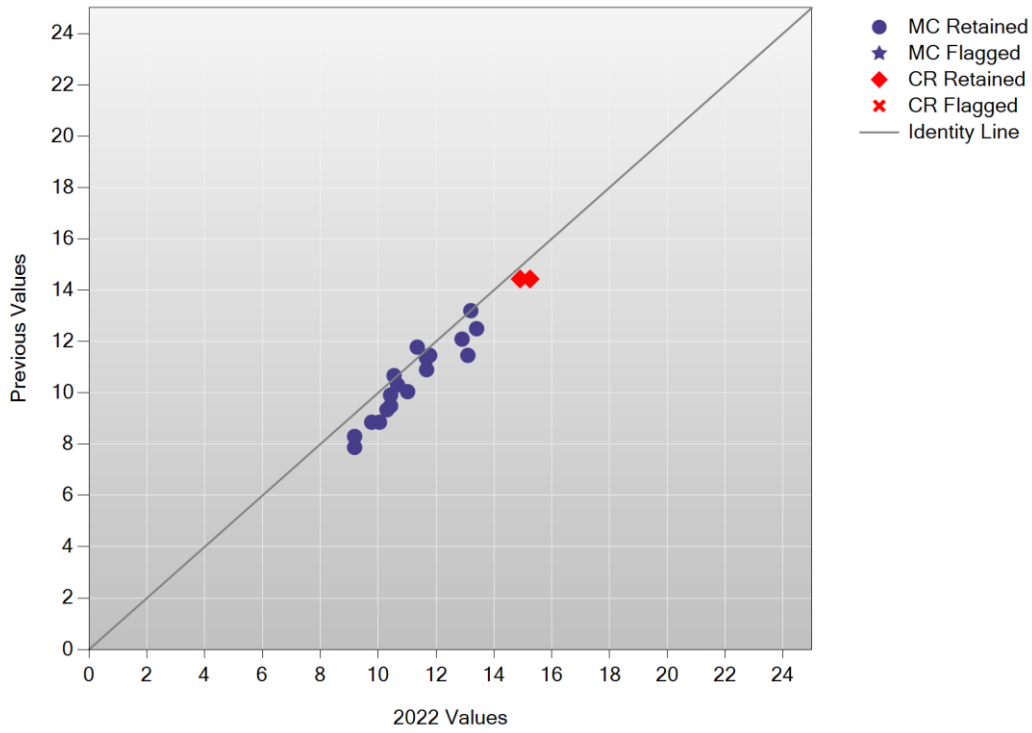
A/A Plot: Mathematics Grade 3



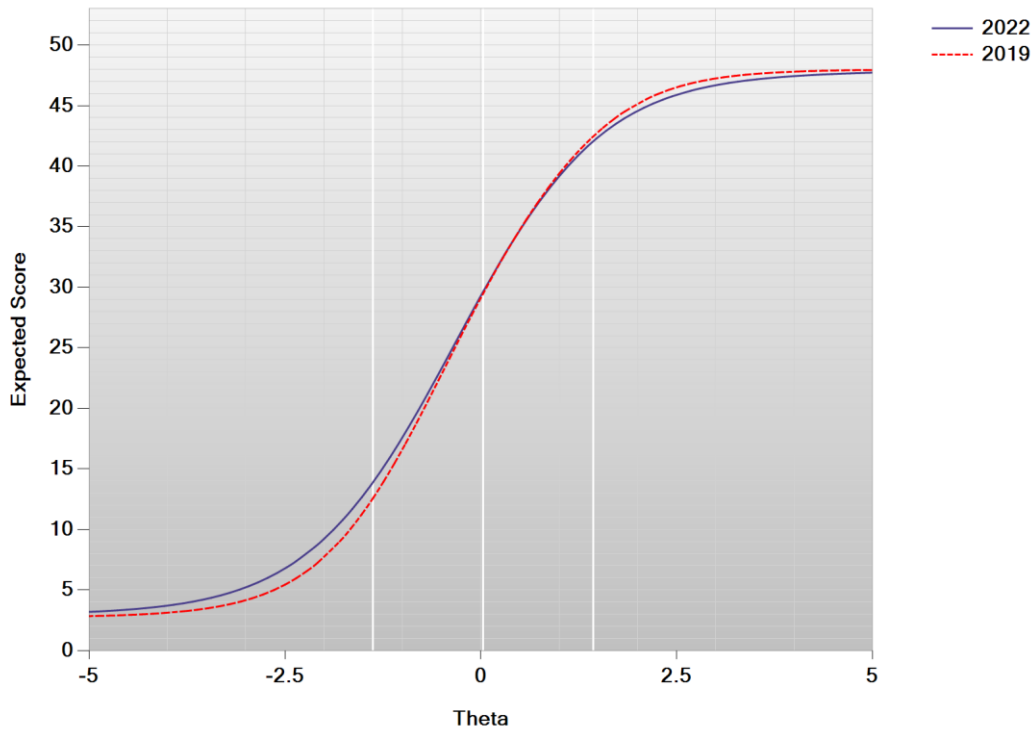
B/B Plot: Mathematics Grade 3



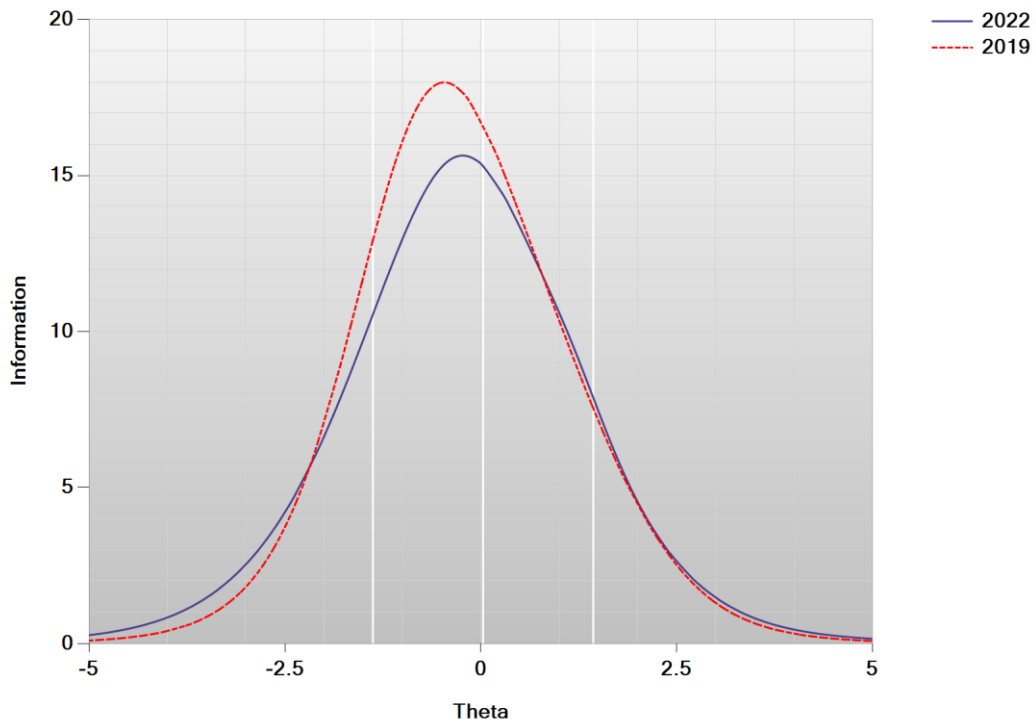
Delta Plot: Mathematics Grade 3



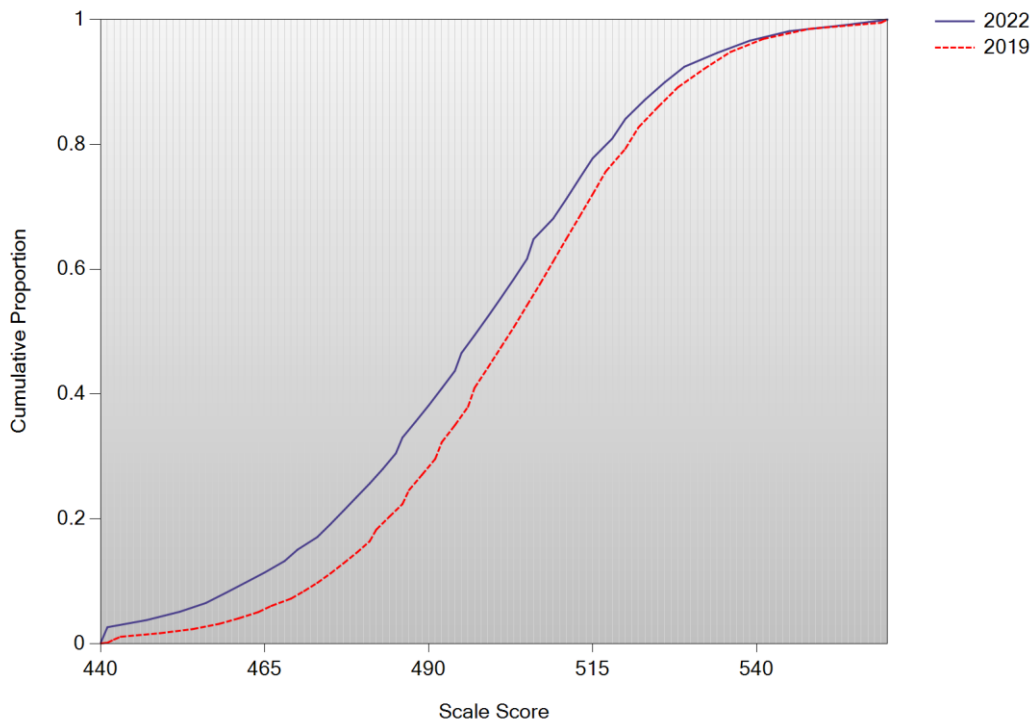
Test Characteristic Curve: Mathematics Grade 3



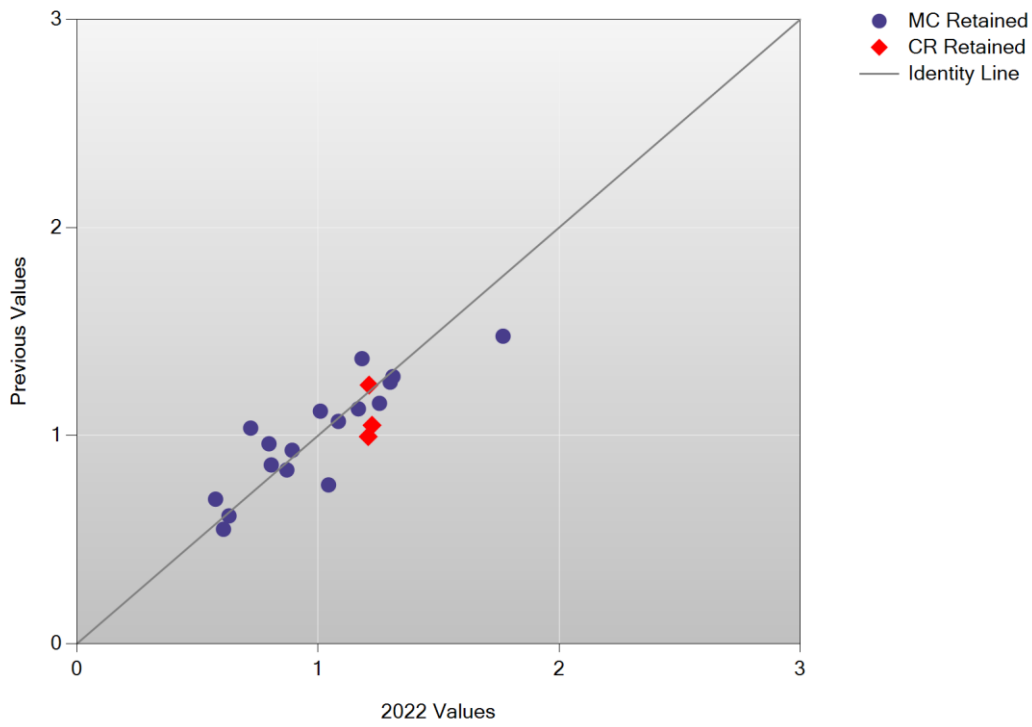
Test Information Function: Mathematics Grade 3



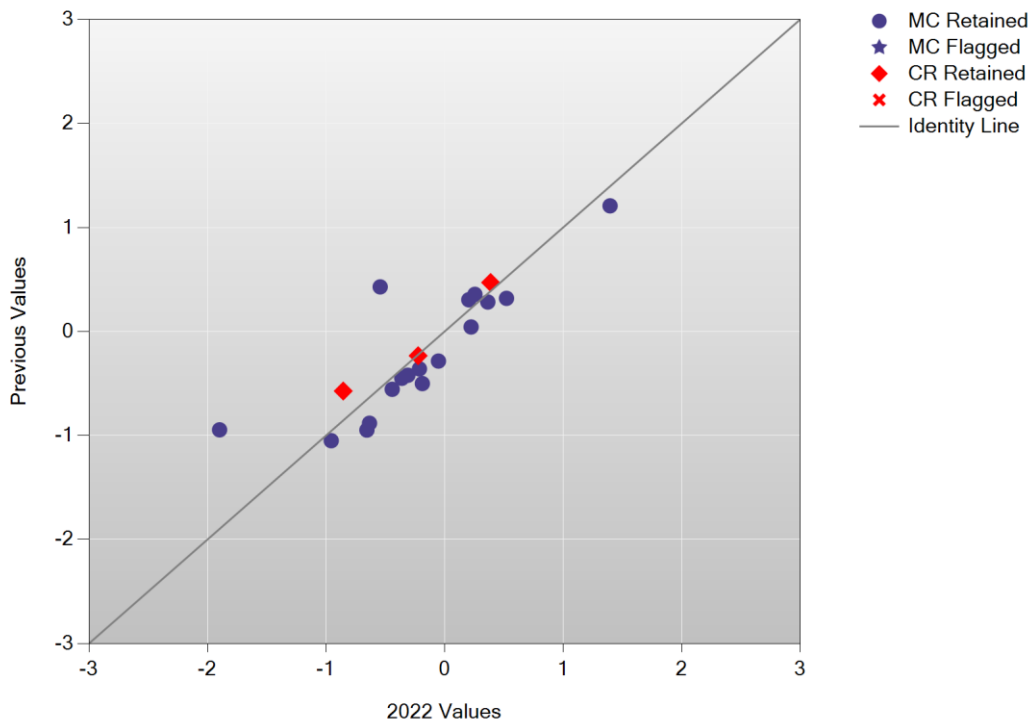
Cumulative Scale Score Distributions: Mathematics Grade 3



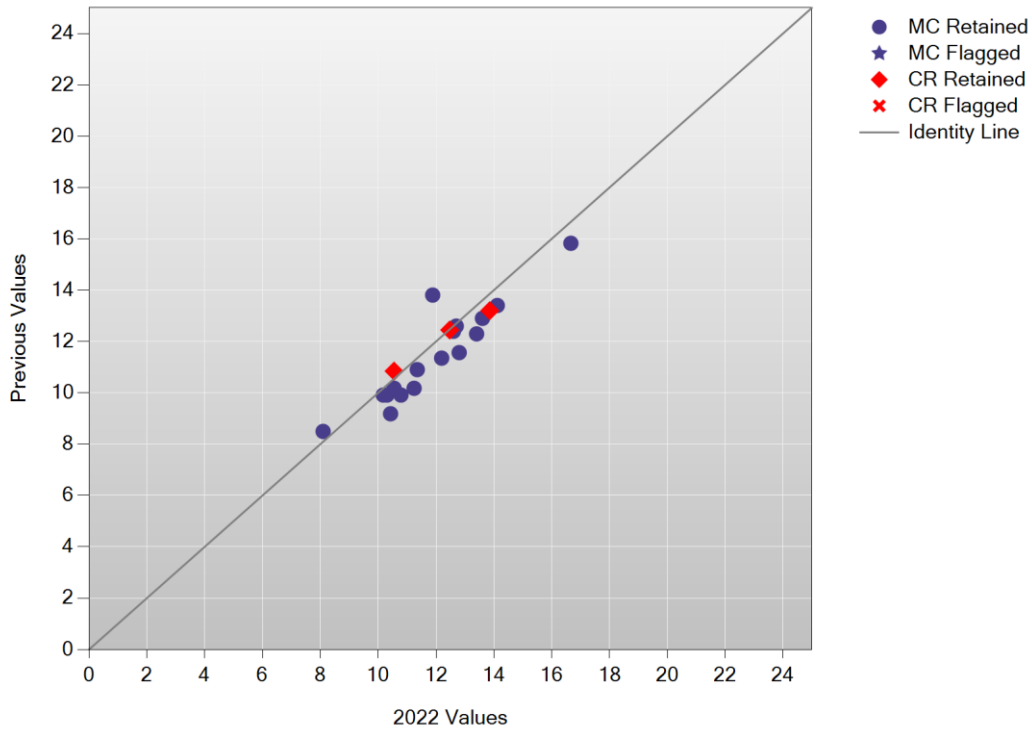
A/A Plot: Mathematics Grade 4



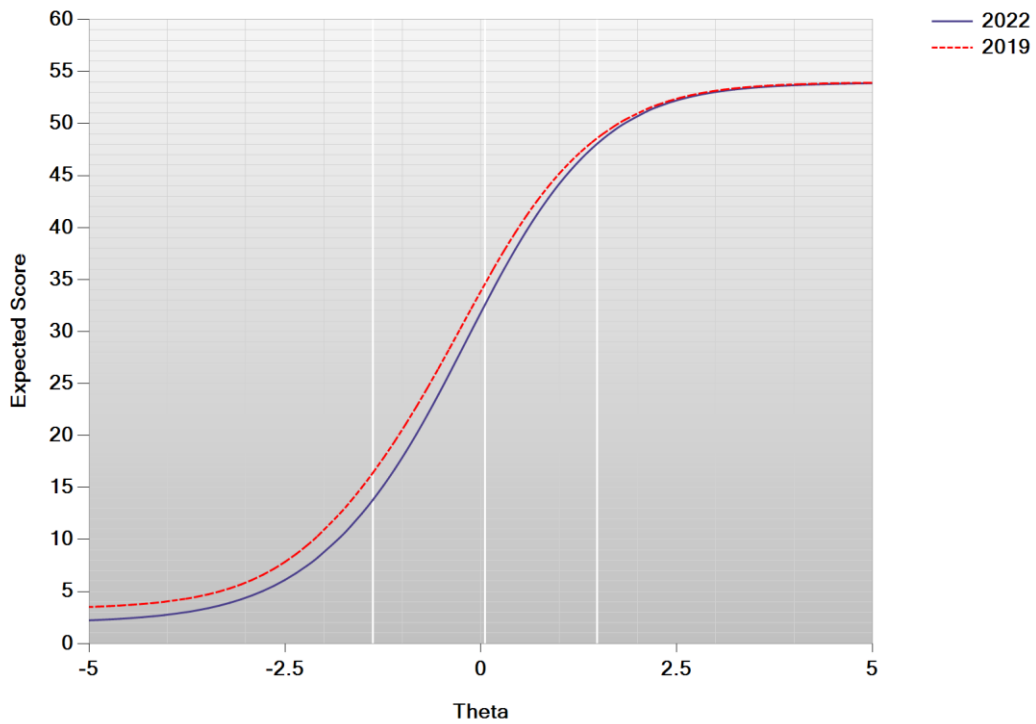
B/B Plot: Mathematics Grade 4



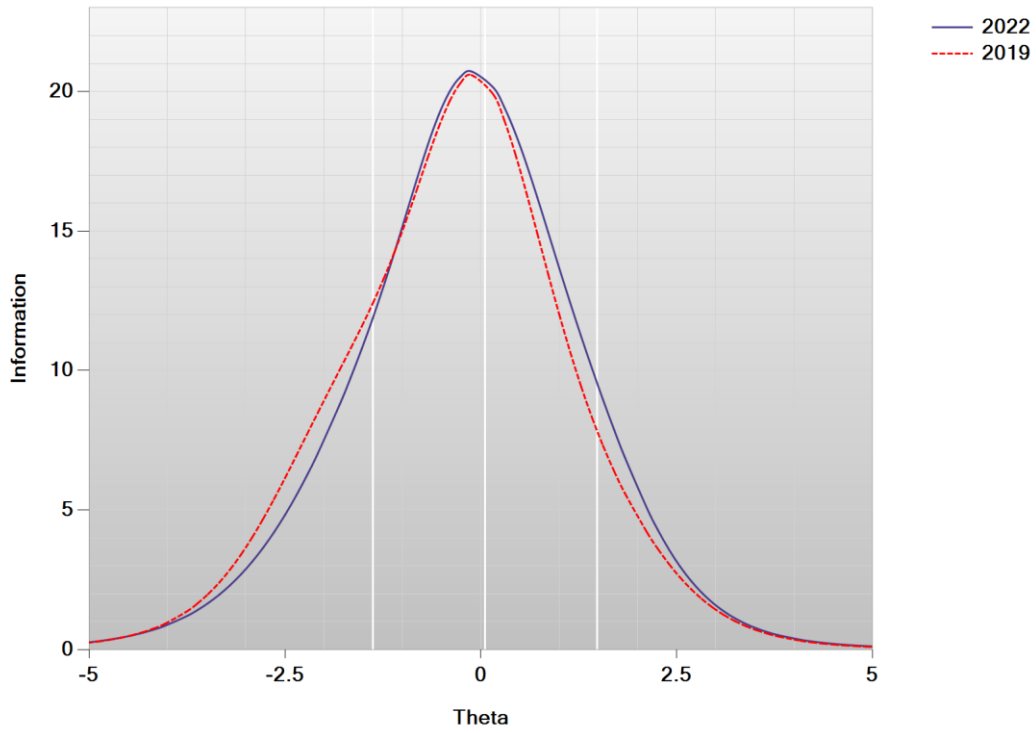
Delta Plot: Mathematics Grade 4



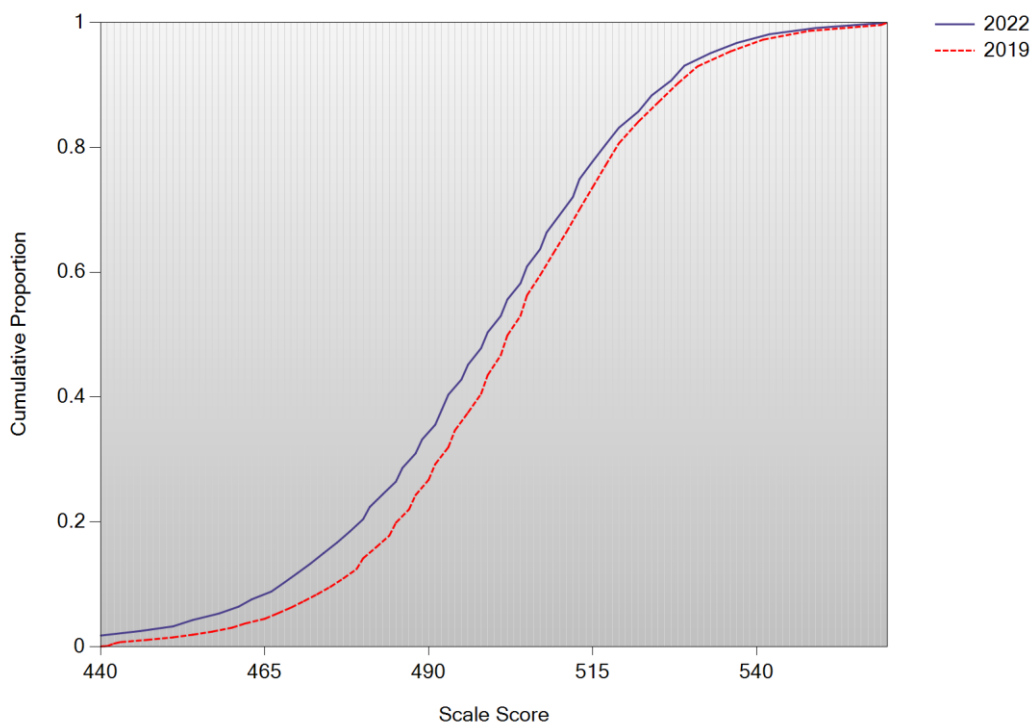
Test Characteristic Curve: Mathematics Grade 4



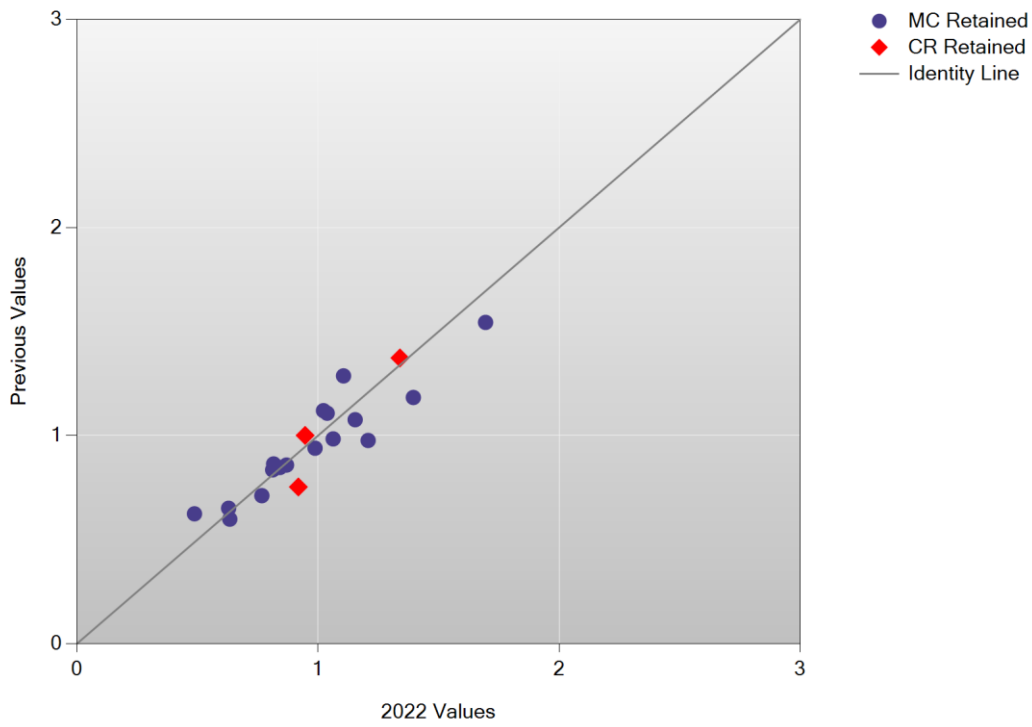
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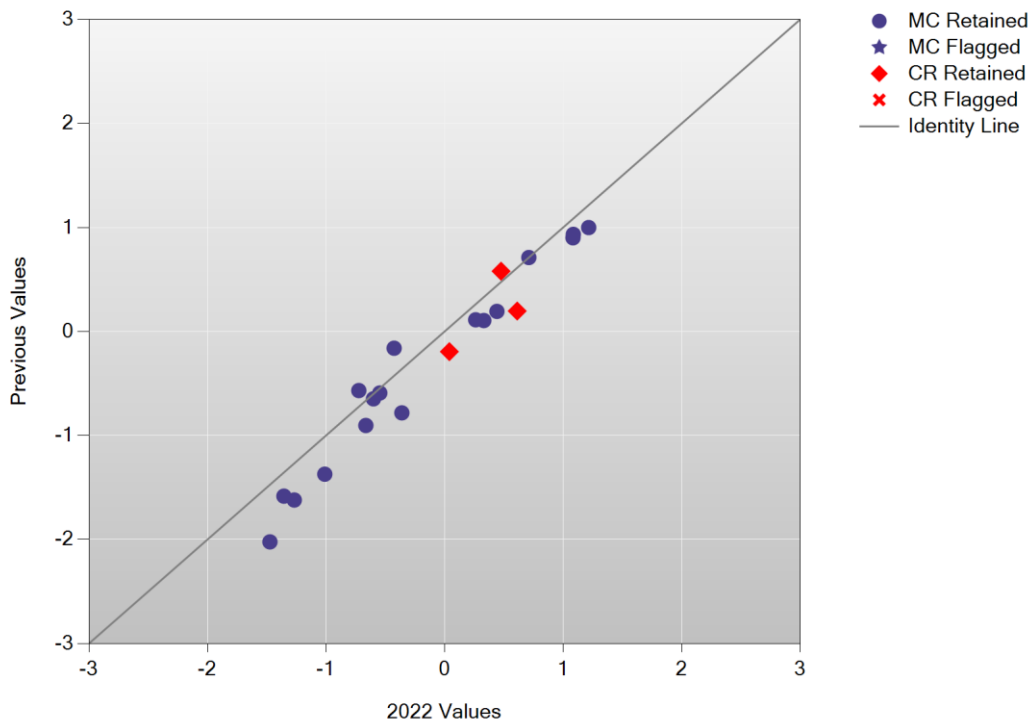
Cumulative Scale Score Distributions: Mathematics Grade 4



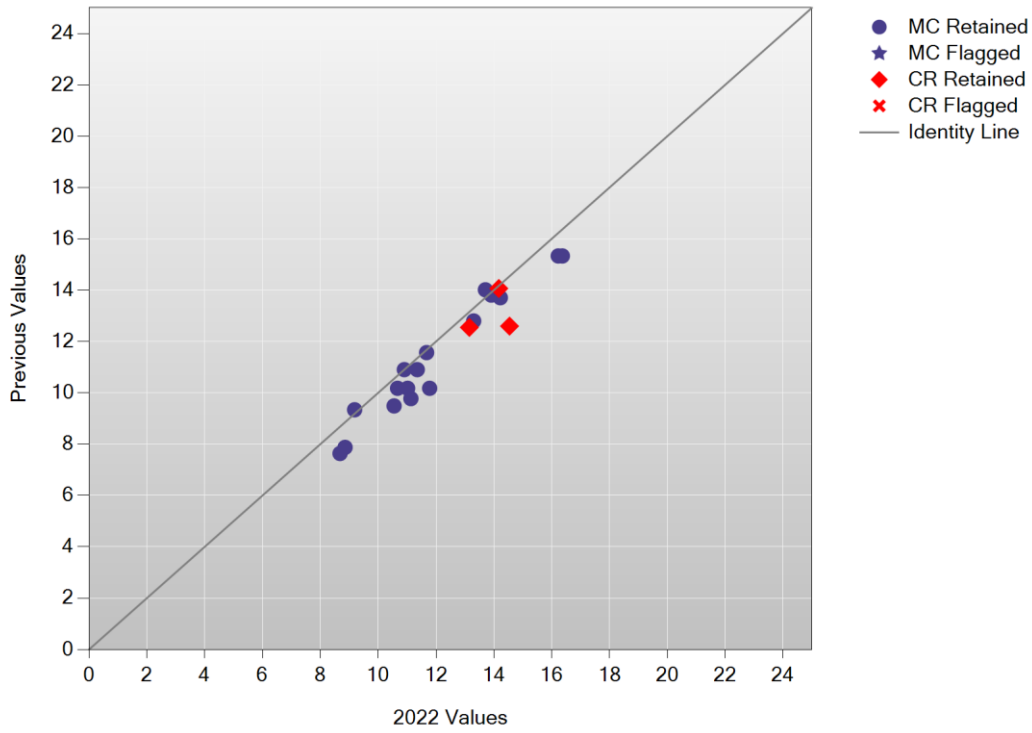
A/A Plot: Mathematics Grade 5



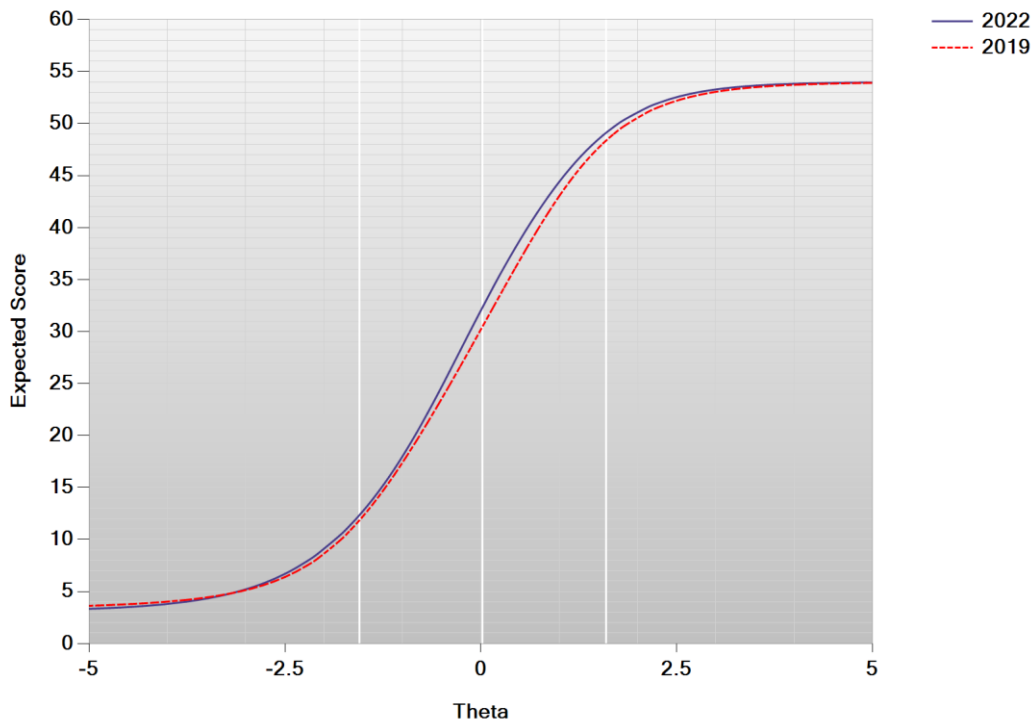
B/B Plot: Mathematics Grade 5



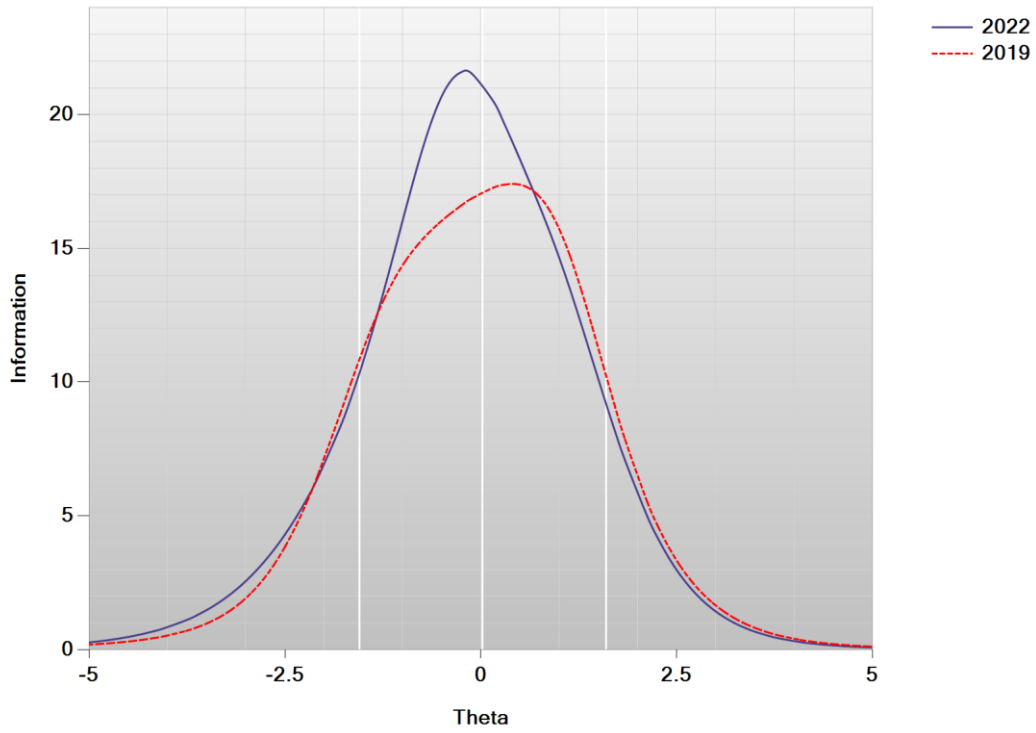
Delta Plot: Mathematics Grade 5



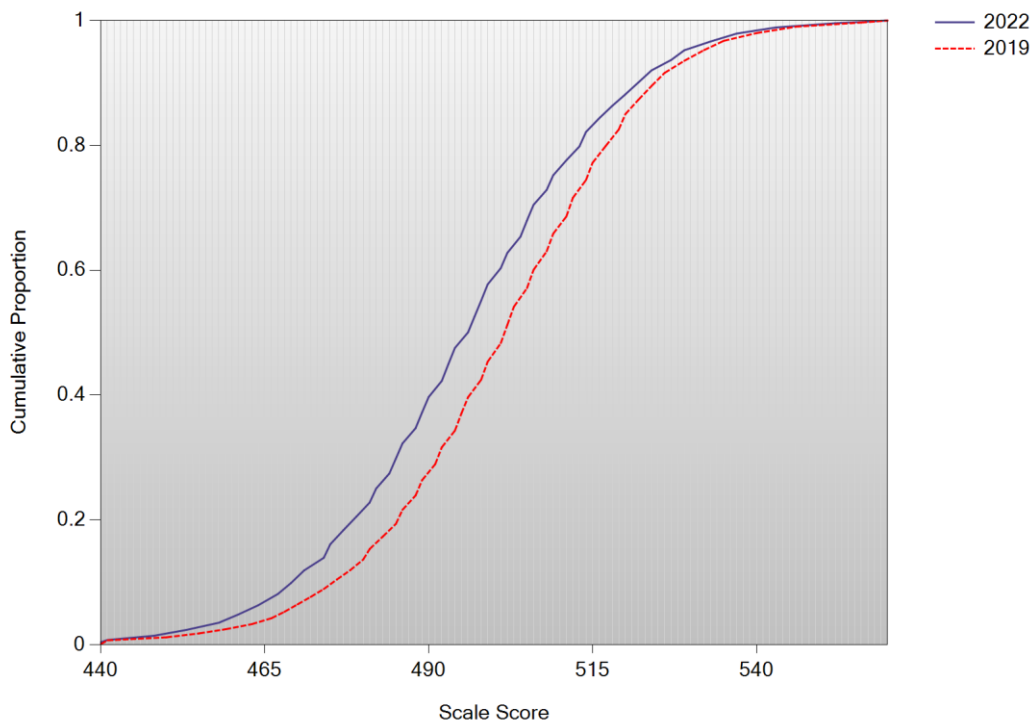
Test Characteristic Curve: Mathematics Grade 5



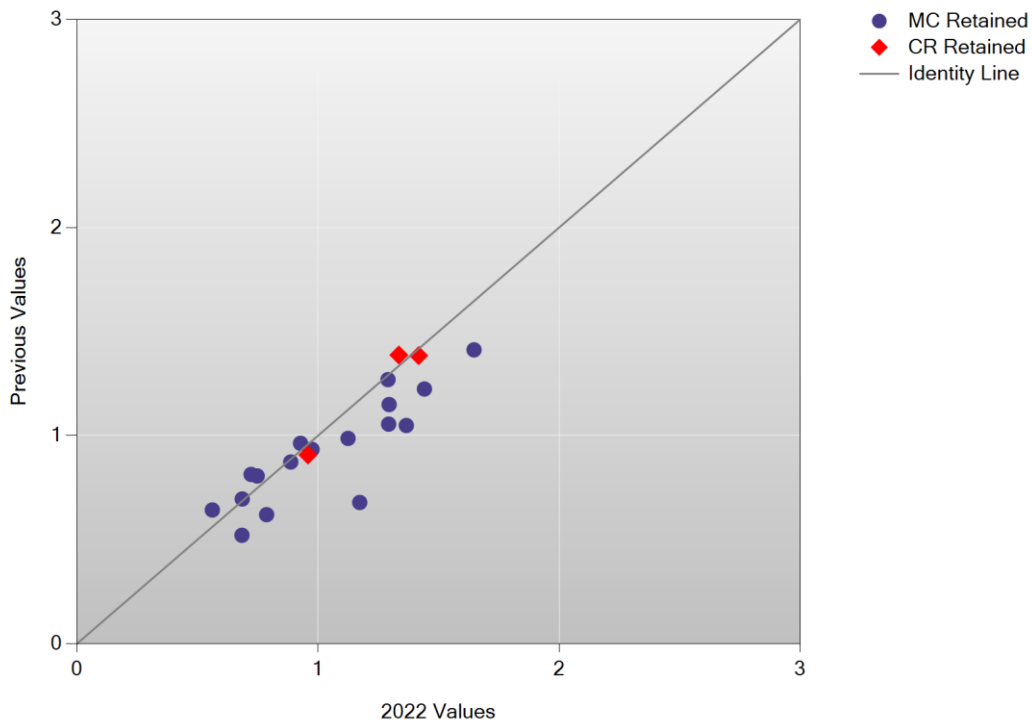
Test Information Function: Mathematics Grade 5



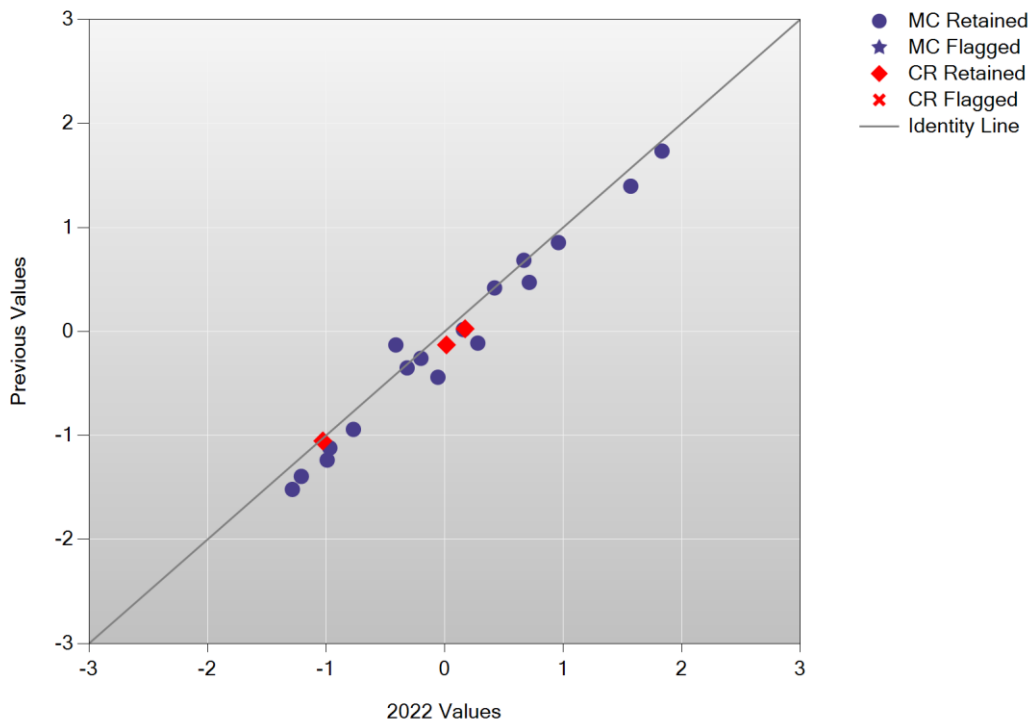
Cumulative Scale Score Distributions: Mathematics Grade 5



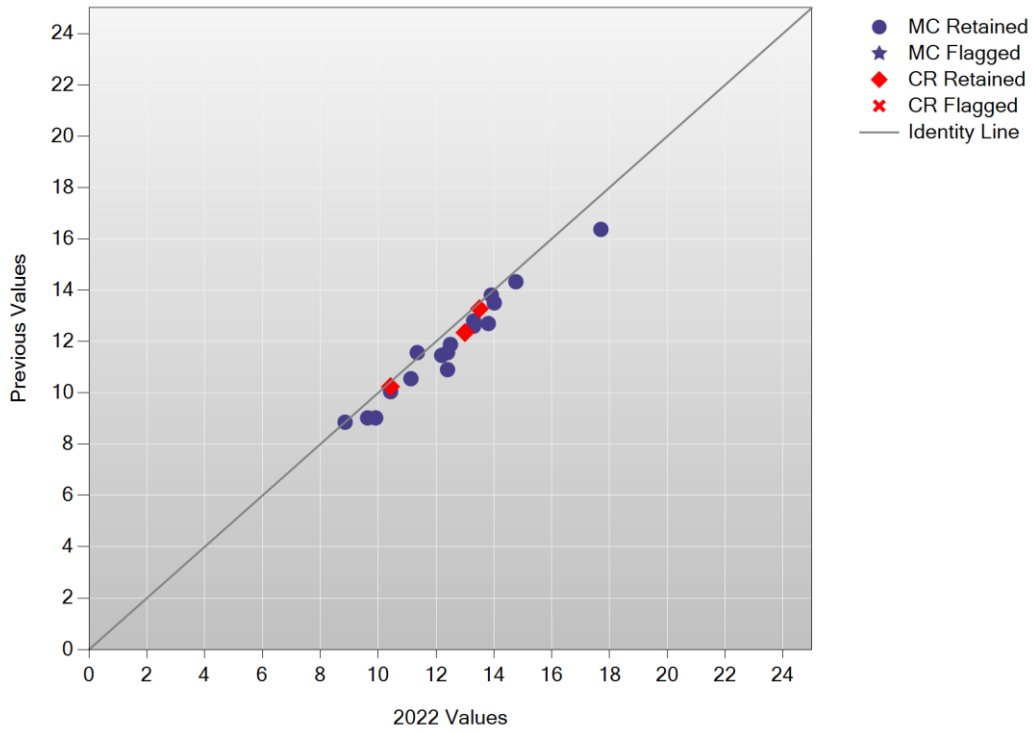
A/A Plot: Mathematics Grade 6



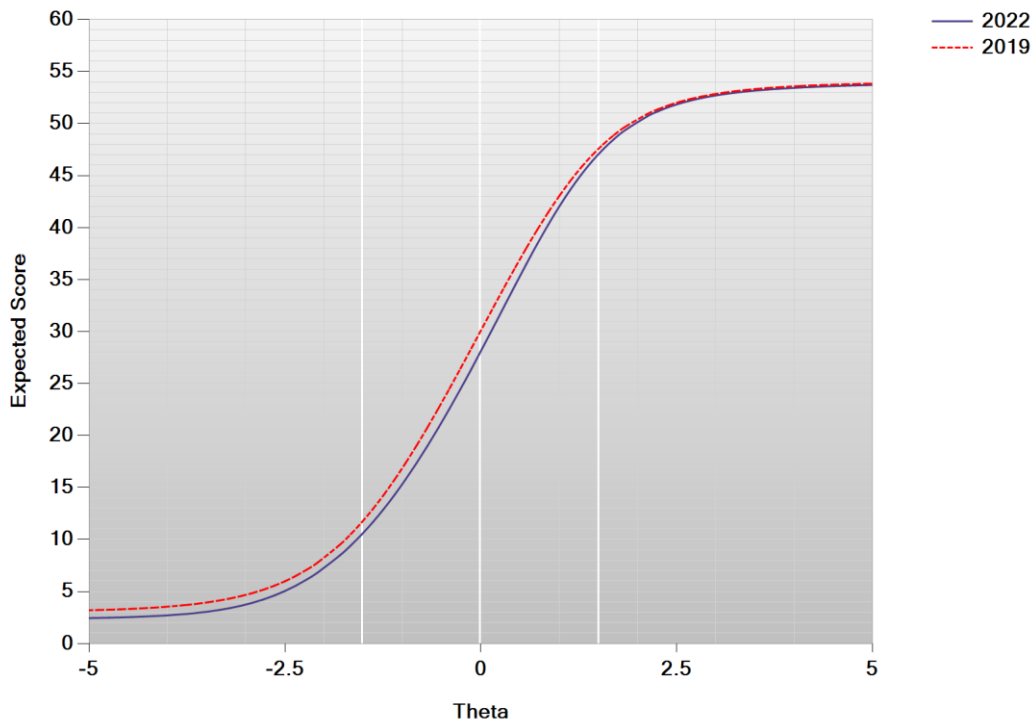
B/B Plot: Mathematics Grade 6



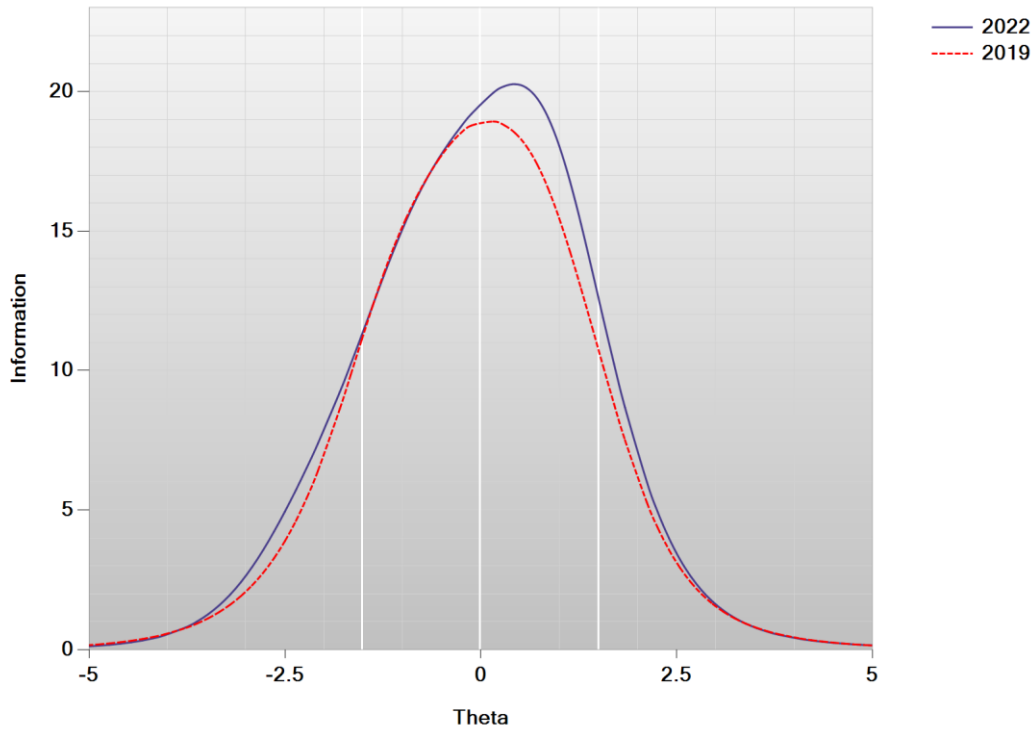
Delta Plot: Mathematics Grade 6



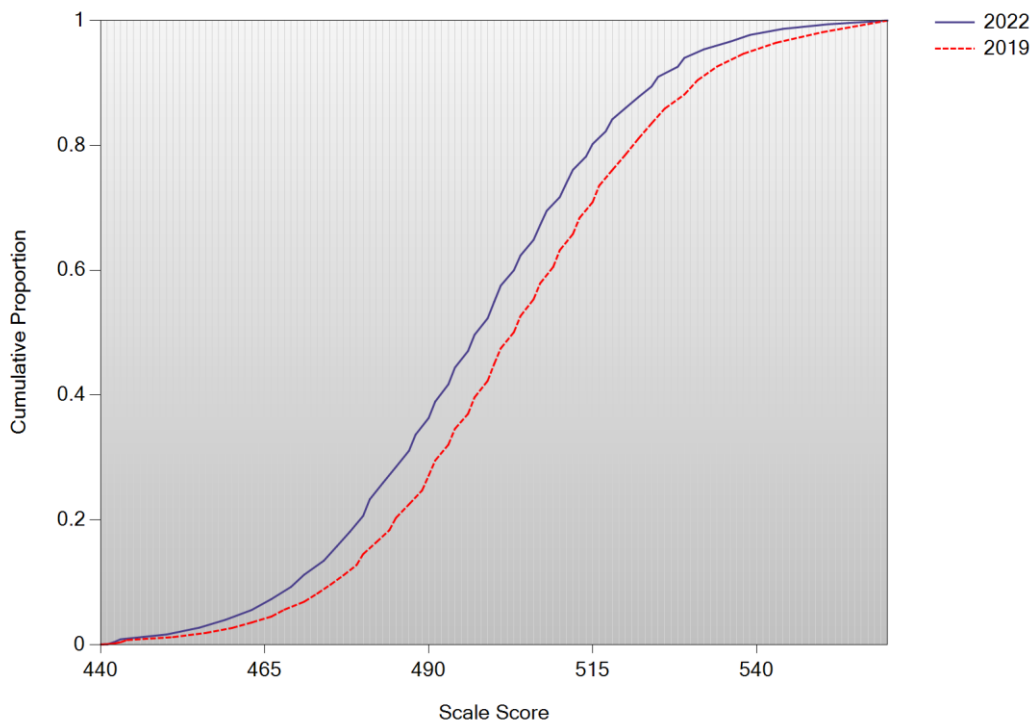
Test Characteristic Curve: Mathematics Grade 6



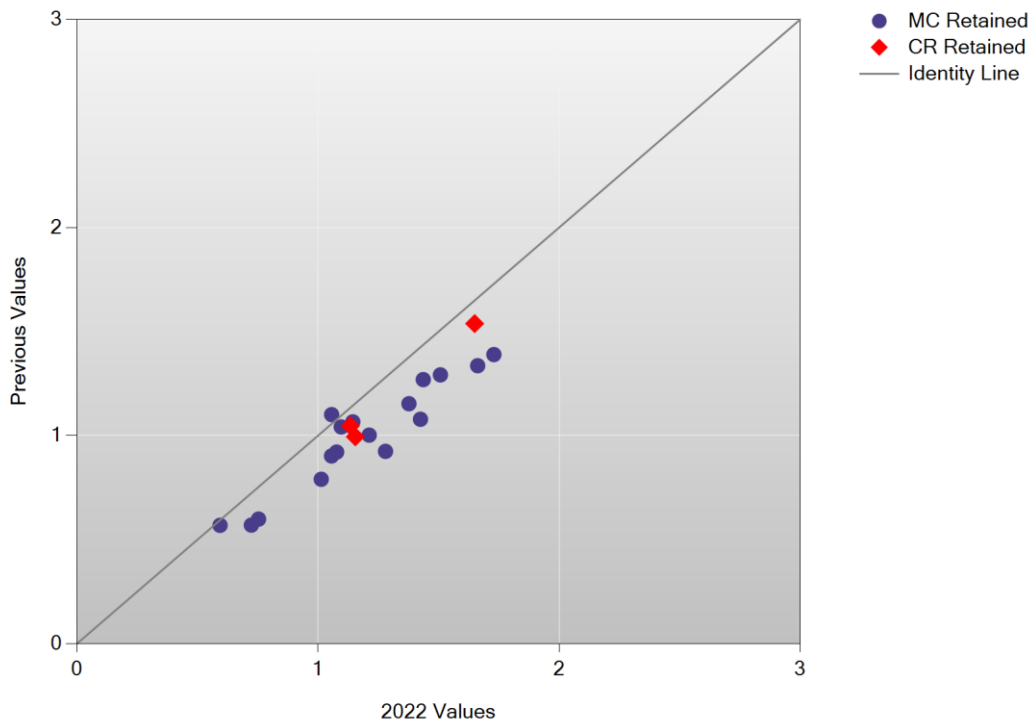
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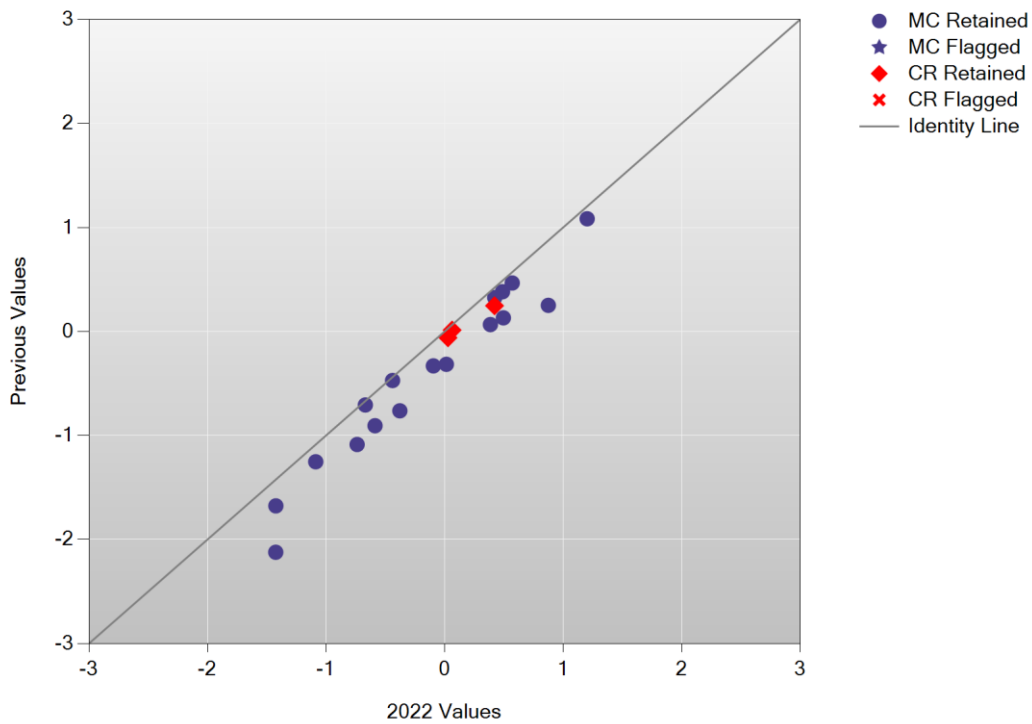
Cumulative Scale Score Distributions: Mathematics Grade 6



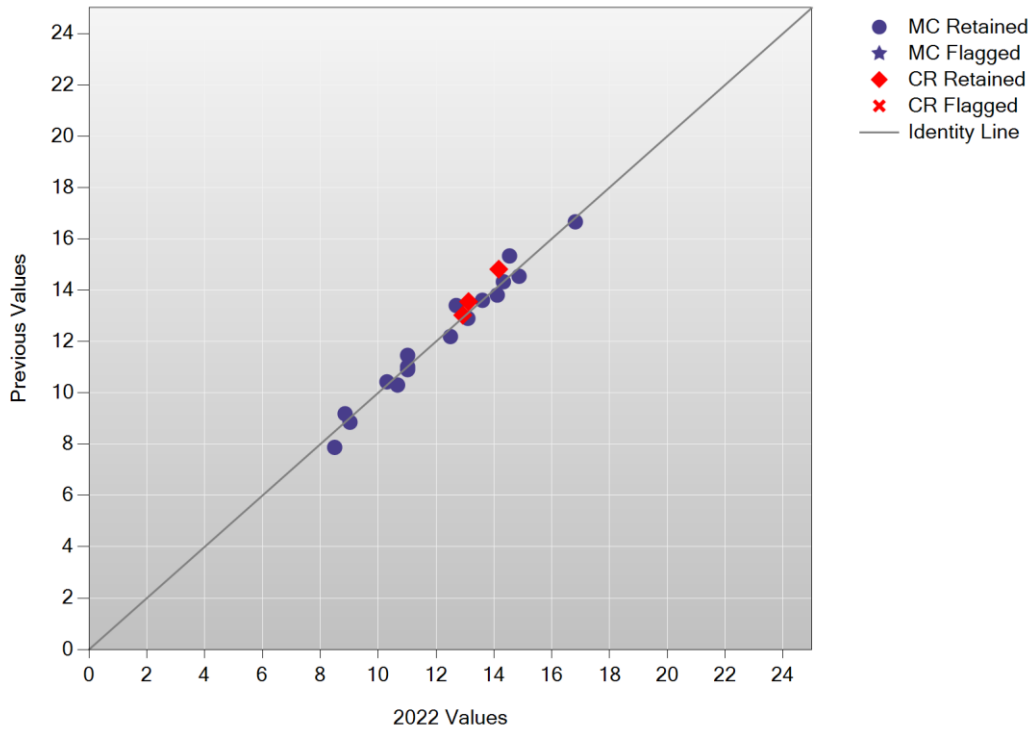
A/A Plot: Mathematics Grade 7



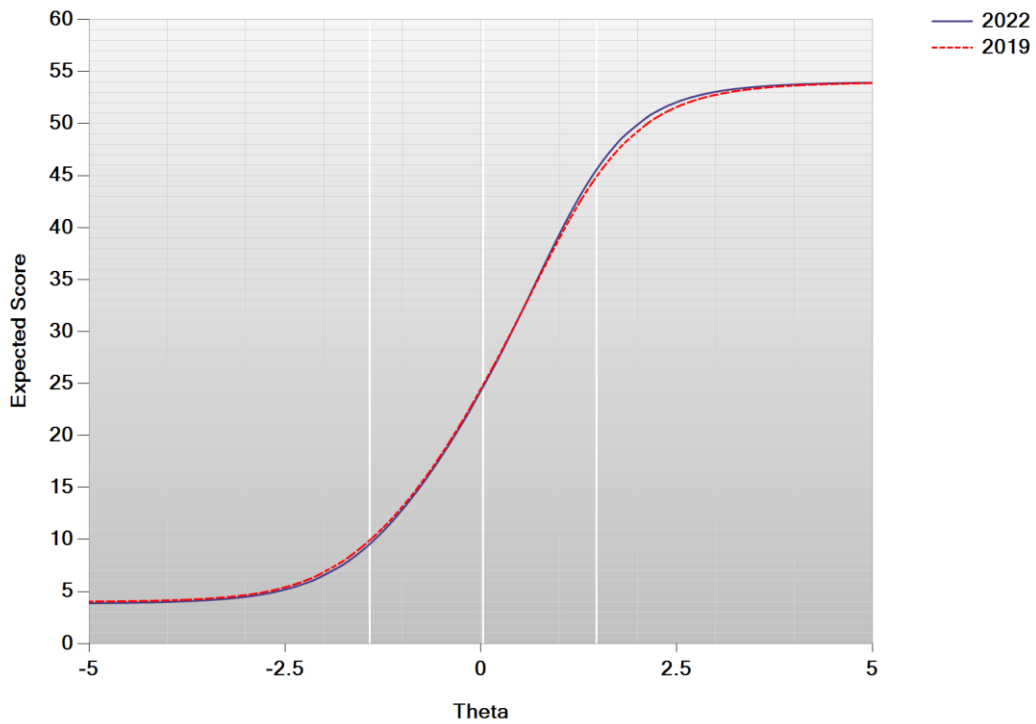
B/B Plot: Mathematics Grade 7



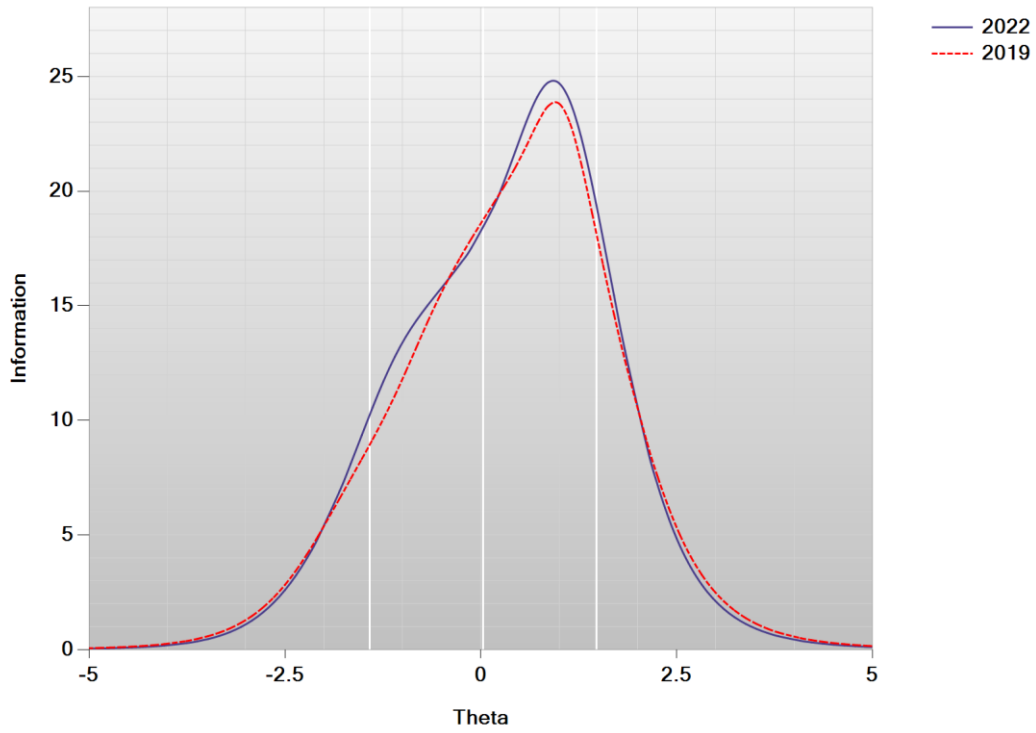
Delta Plot: Mathematics Grade 7



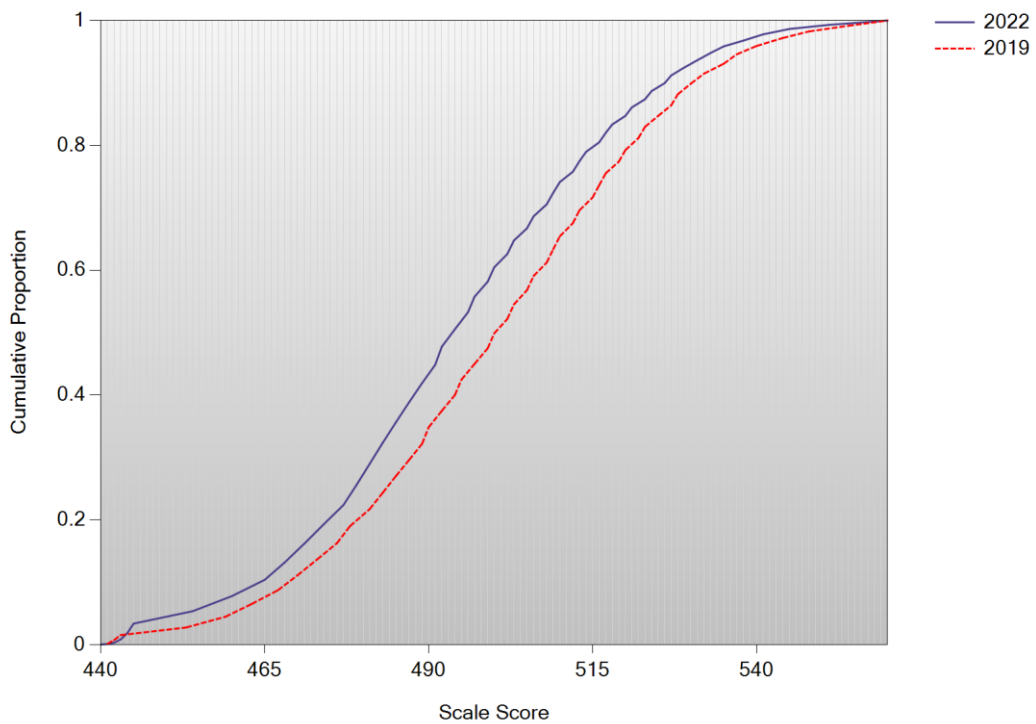
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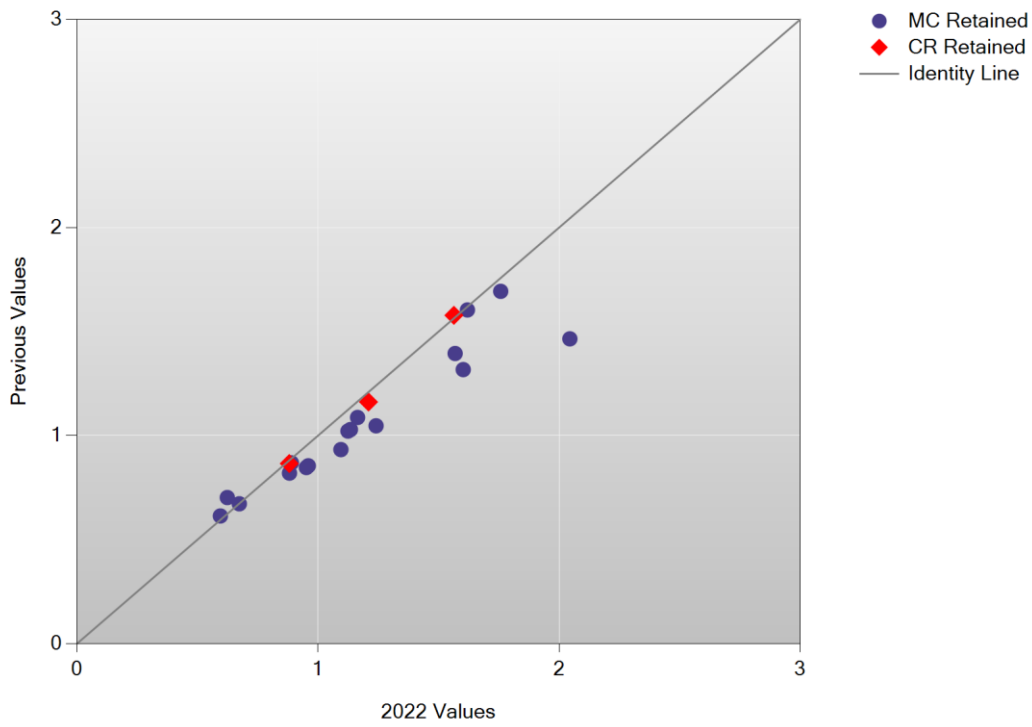
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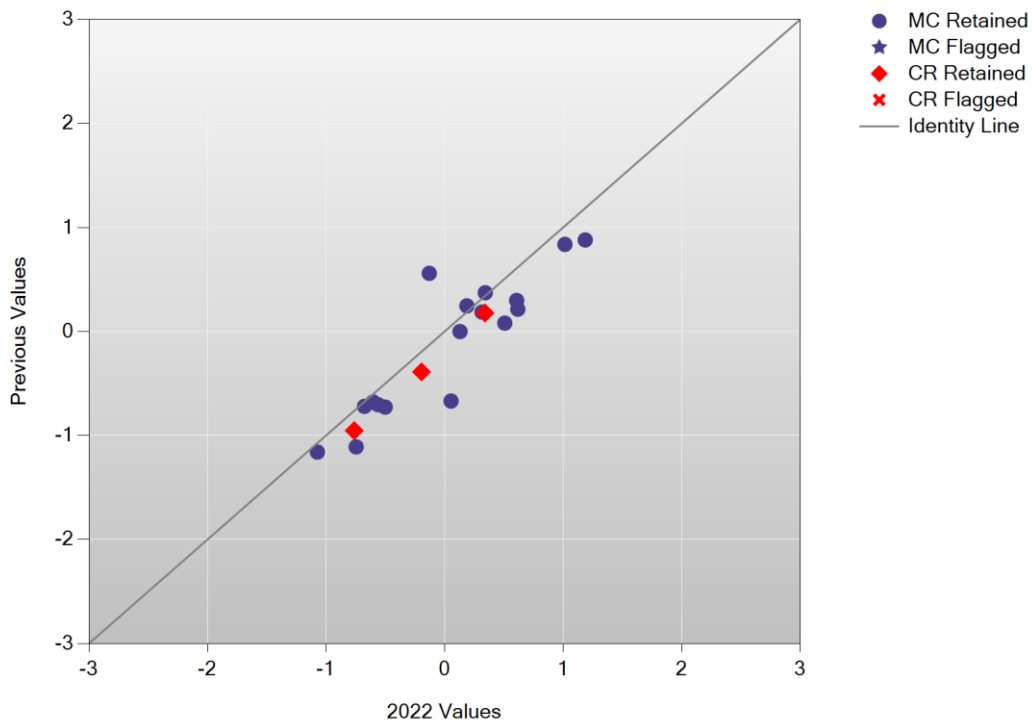
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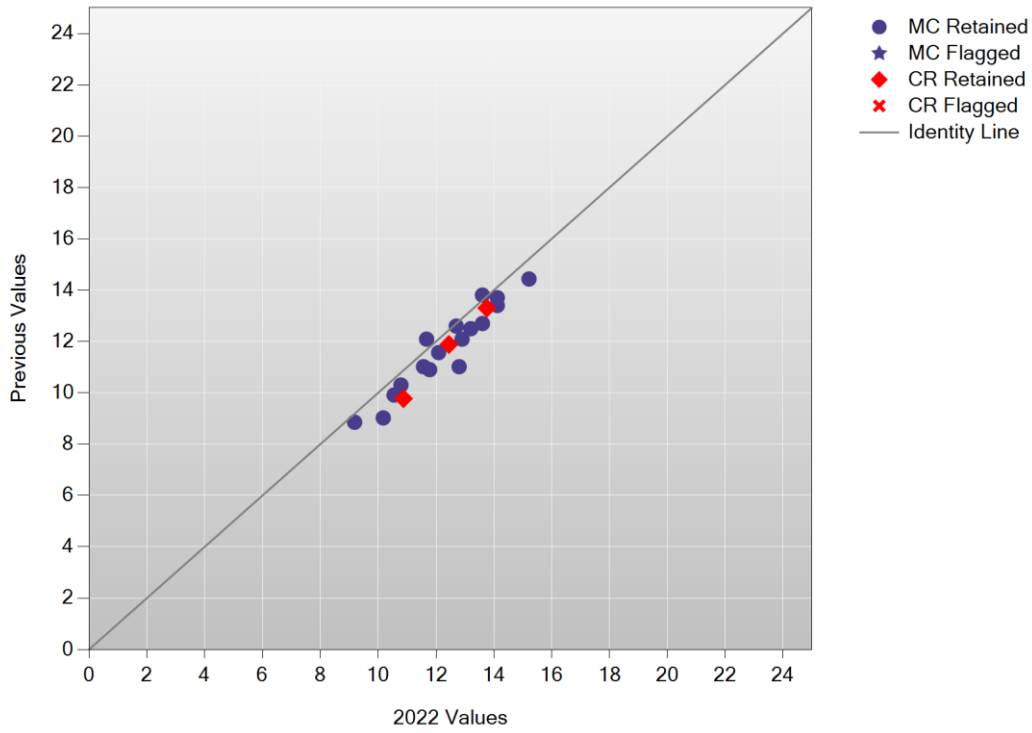
A/A Plot: Mathematics Grade 8



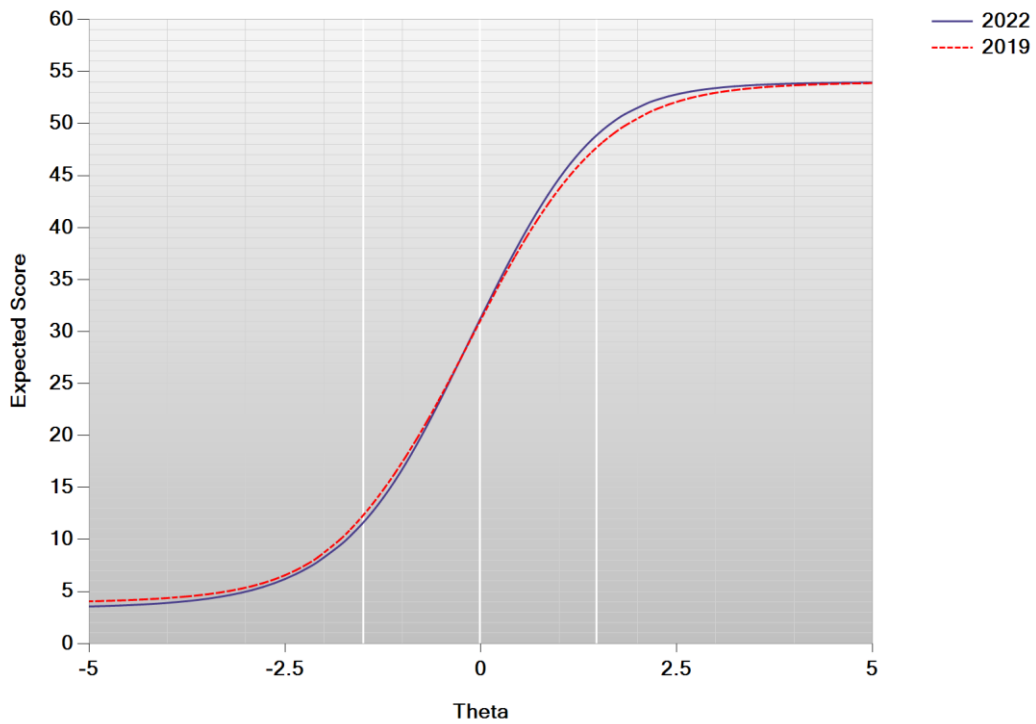
B/B Plot: Mathematics Grade 8



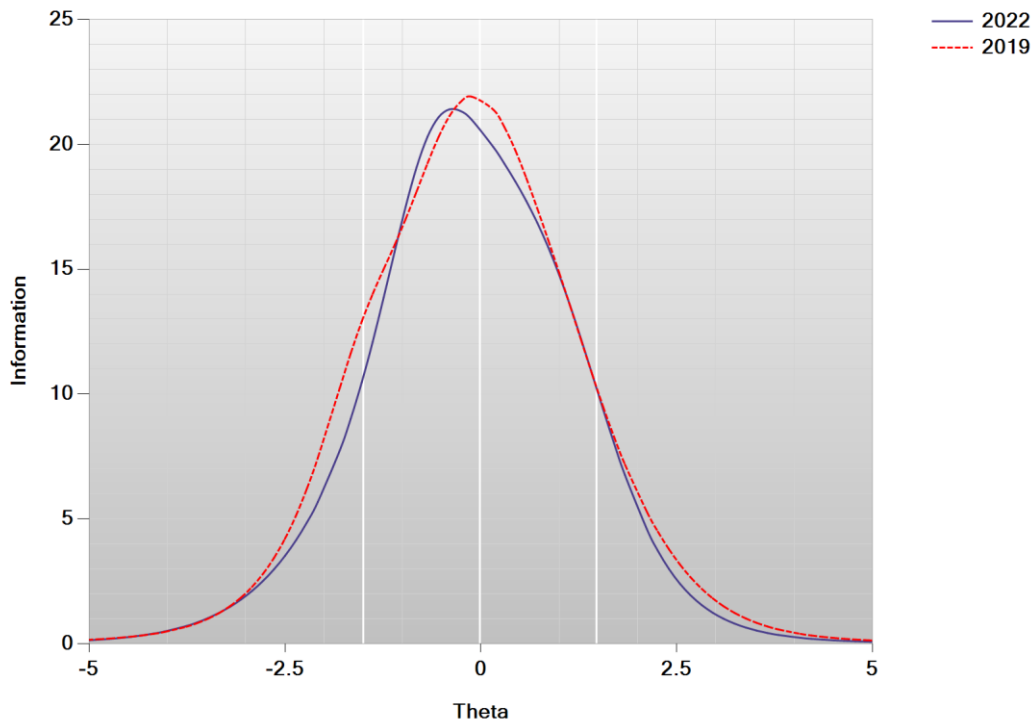
Delta Plot: Mathematics Grade 8



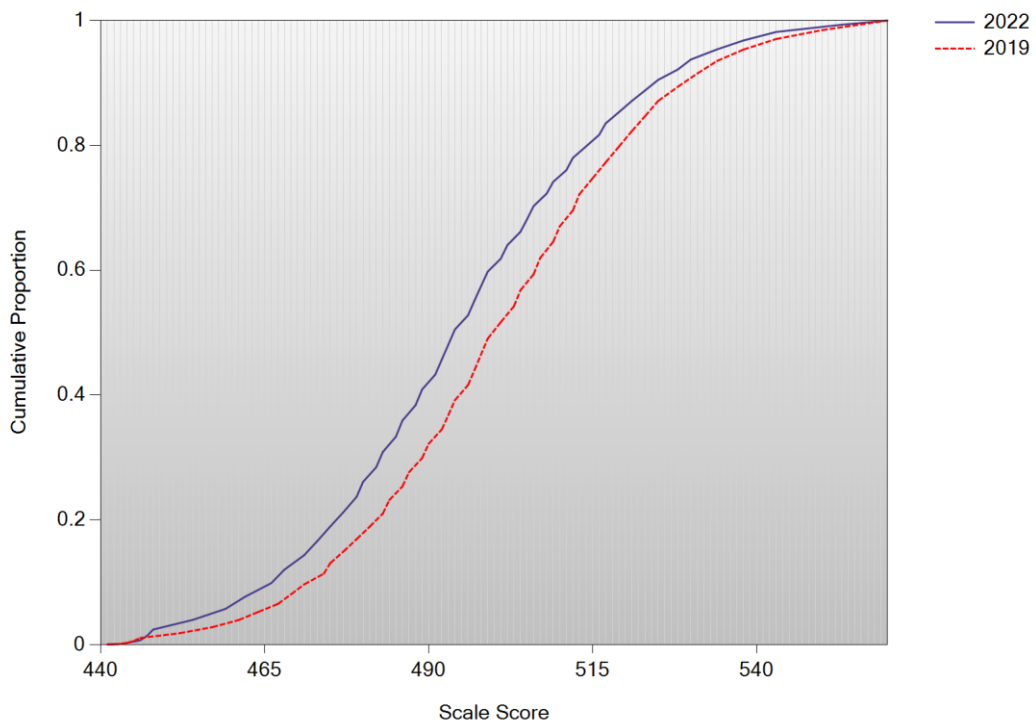
Test Characteristic Curve: Mathematics Grade 8



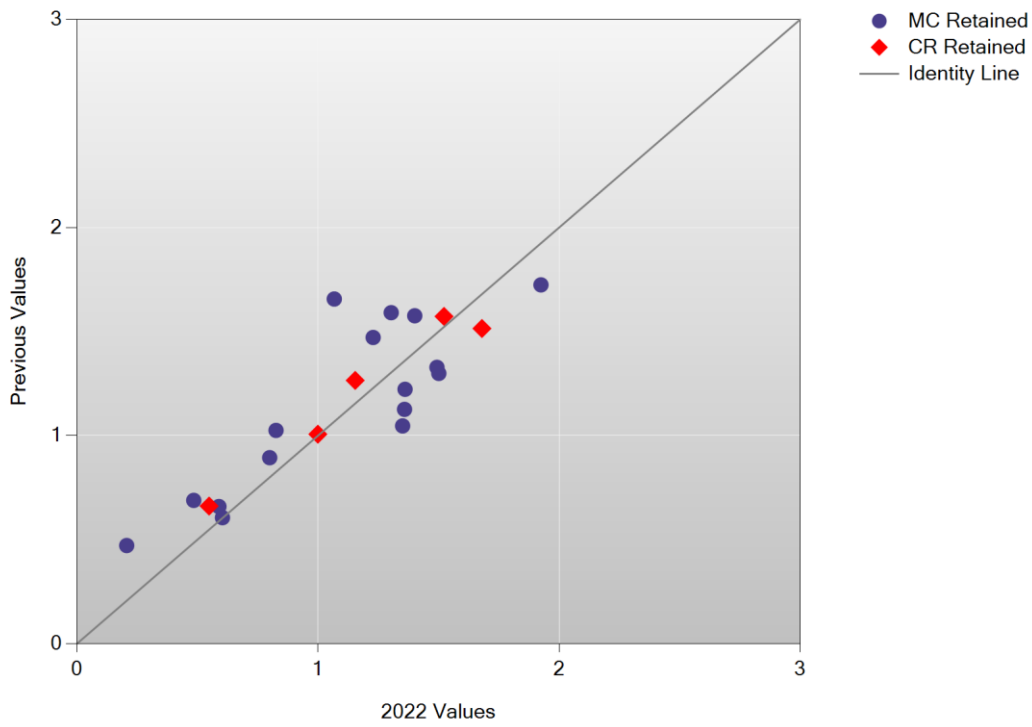
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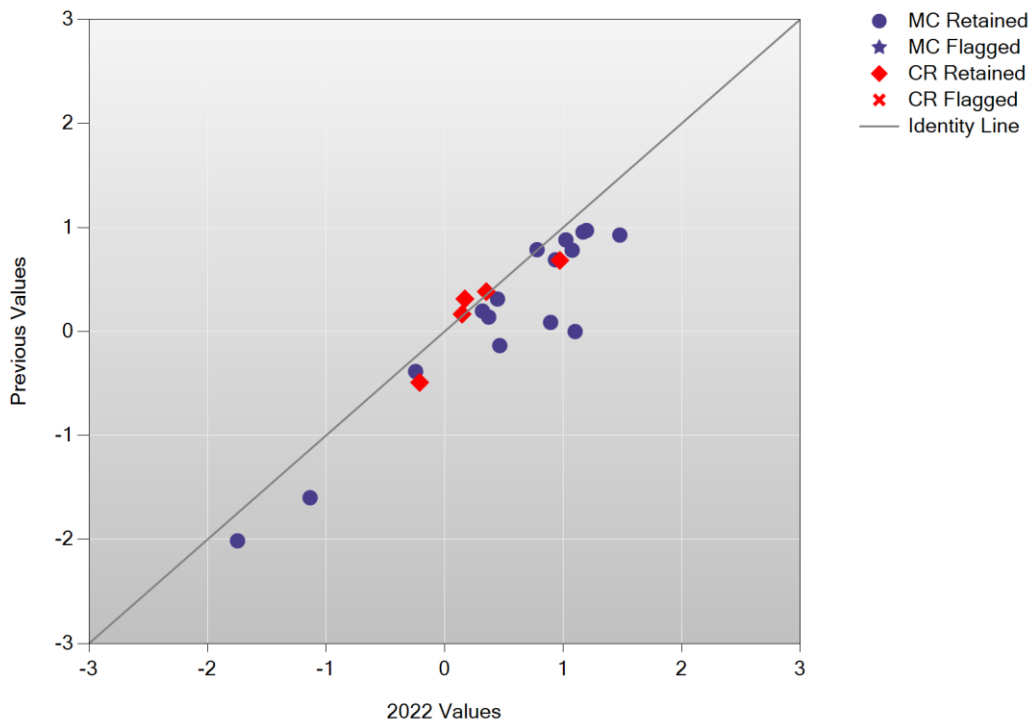
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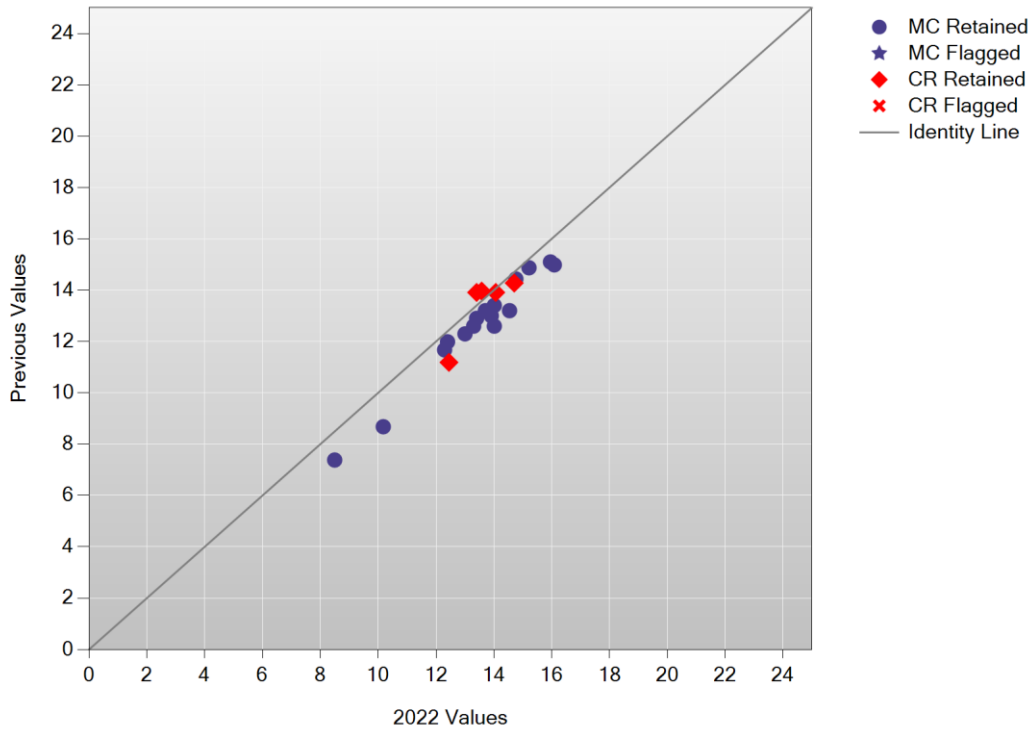
A/A Plot: Mathematics Grade 10



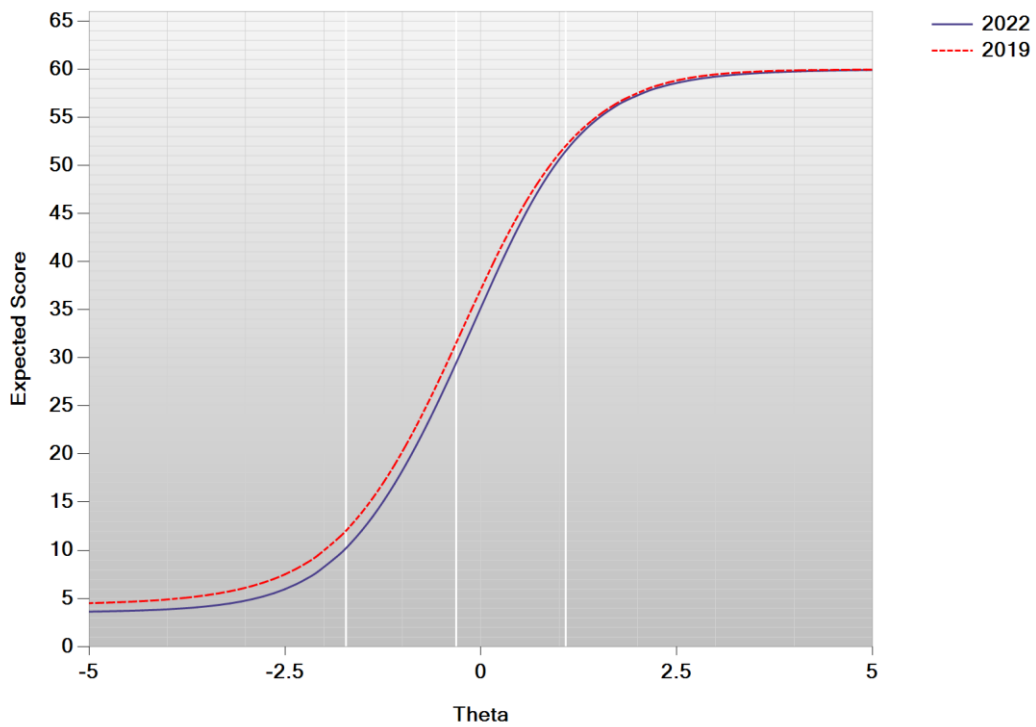
B/B Plot: Mathematics Grade 10



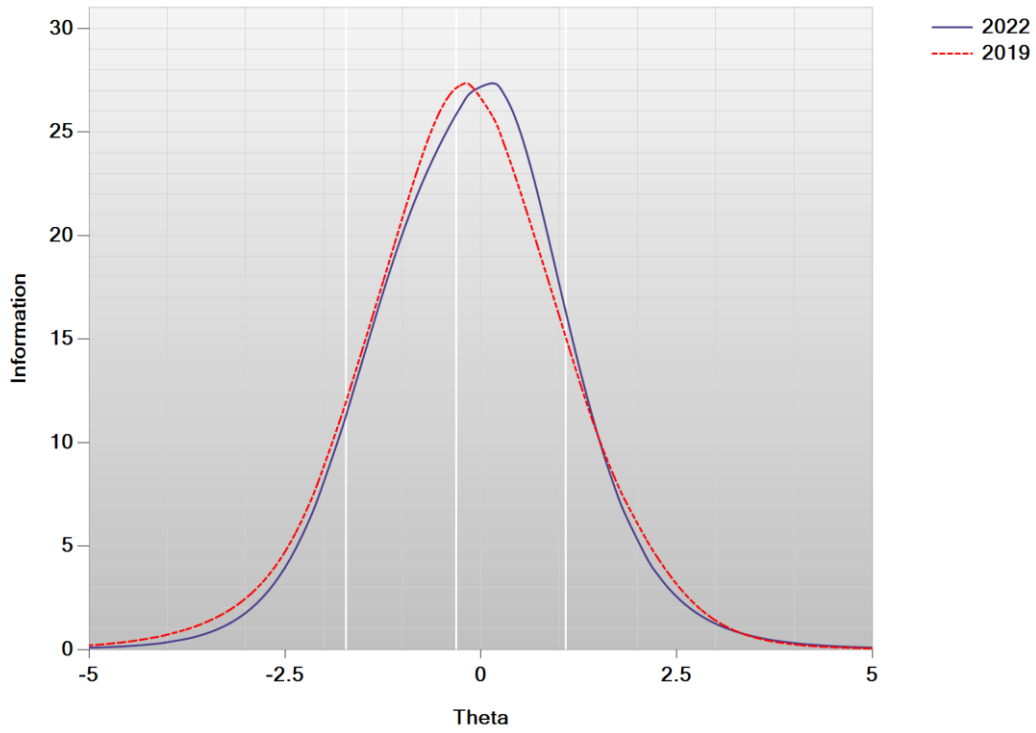
Delta Plot: Mathematics Grade 10



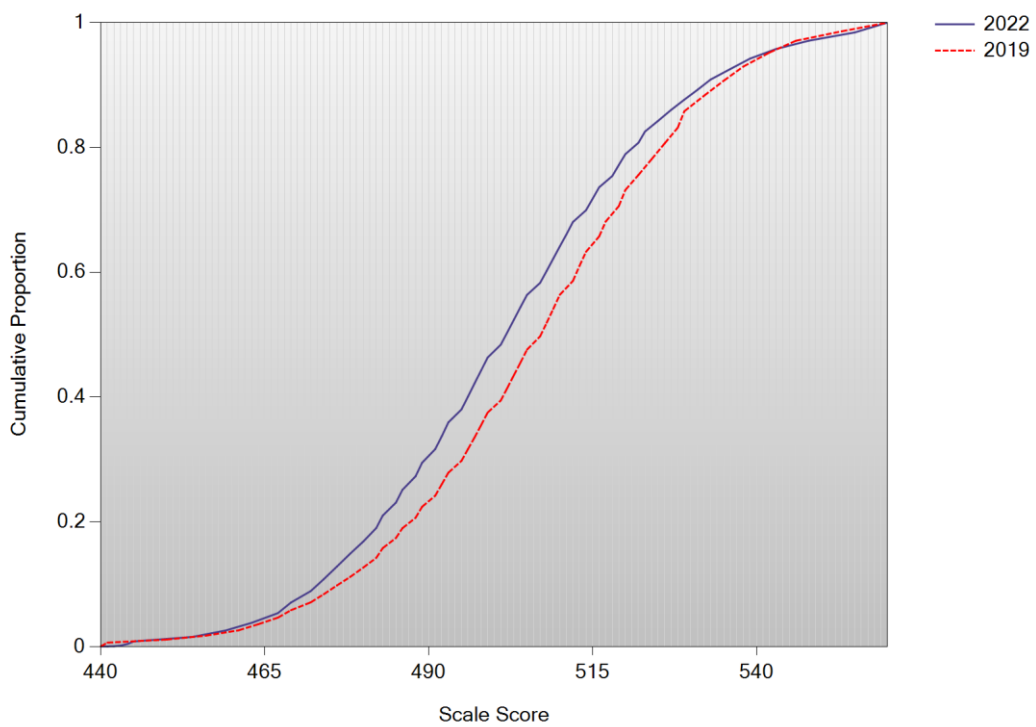
Test Characteristic Curve: Mathematics Grade 10



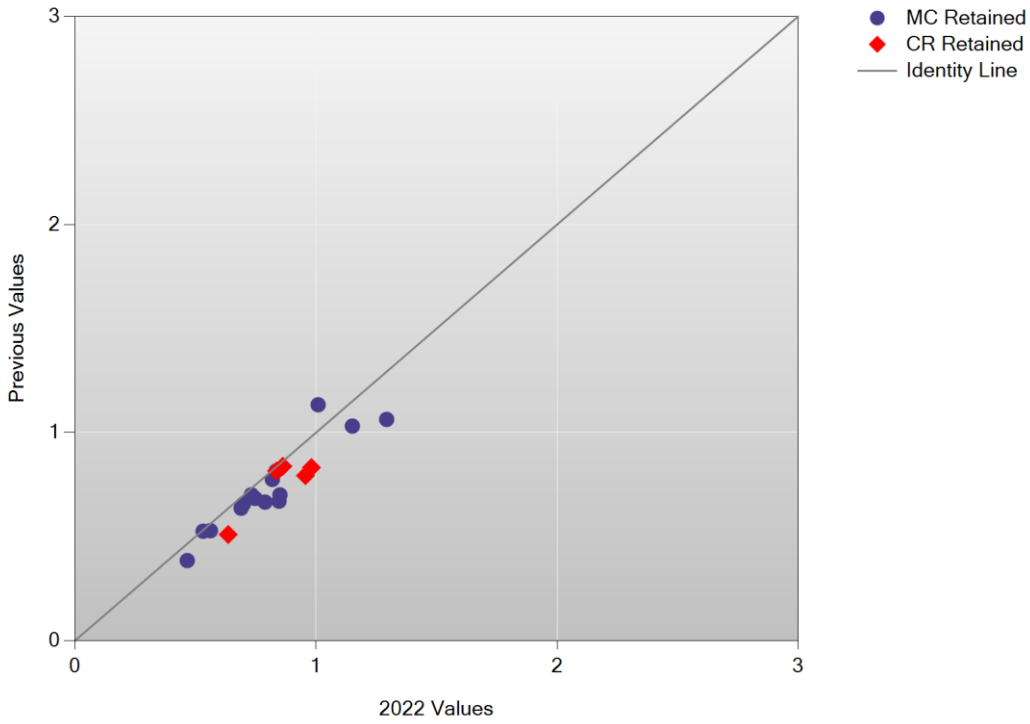
Test Information Function: Mathematics Grade 10



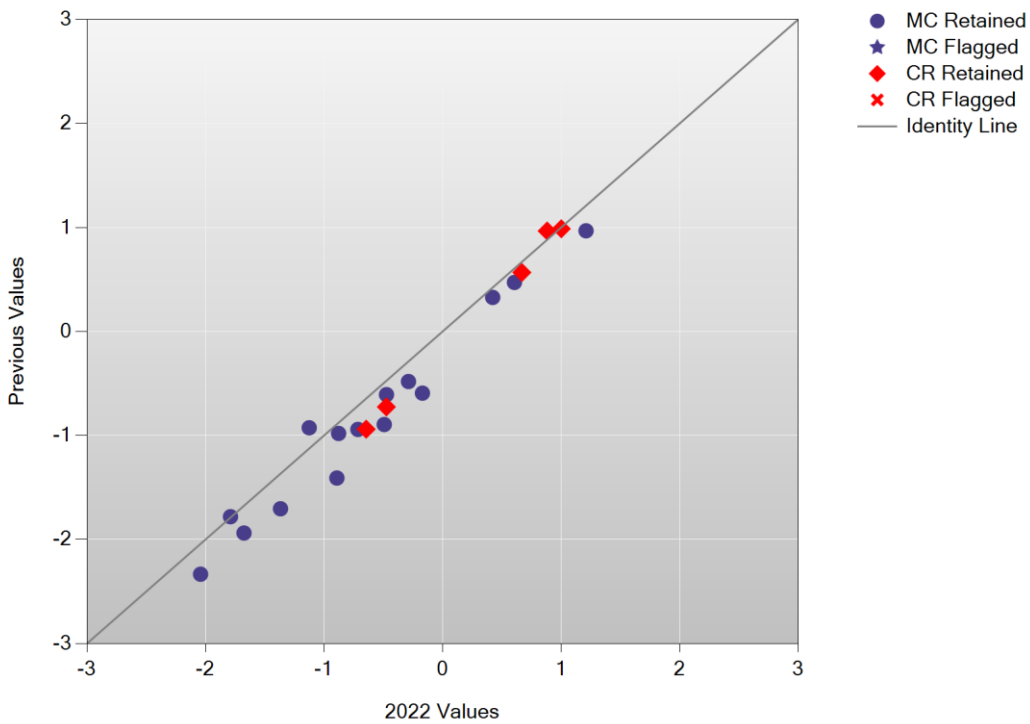
Cumulative Scale Score Distributions: Mathematics Grade 10



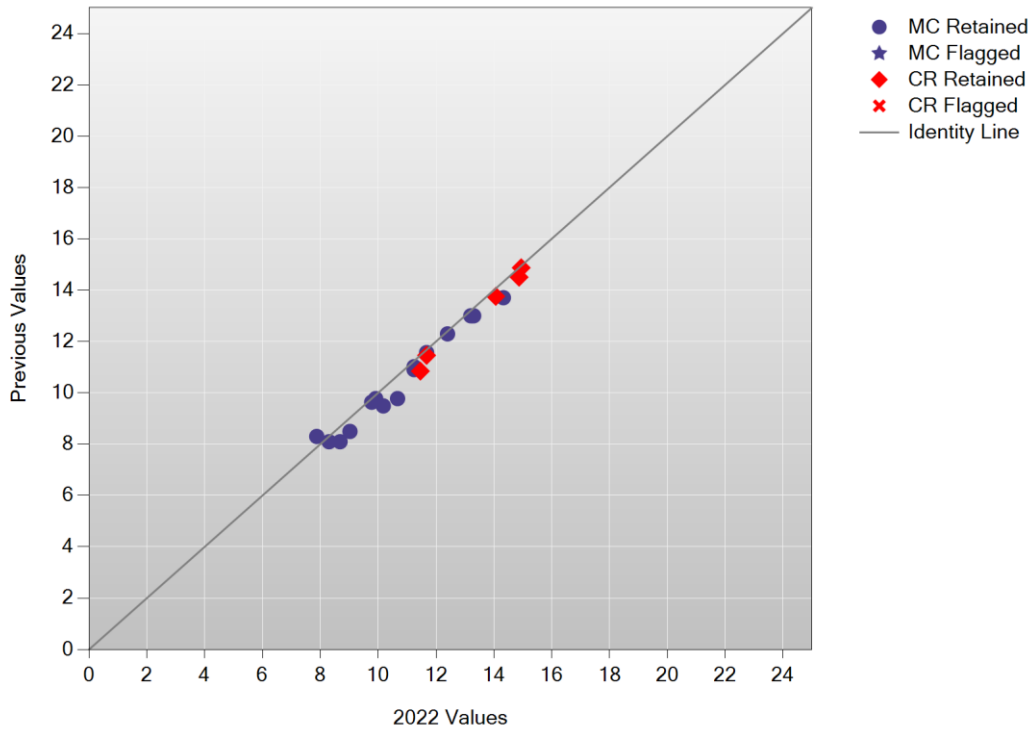
A/A Plot: Science Grade 5



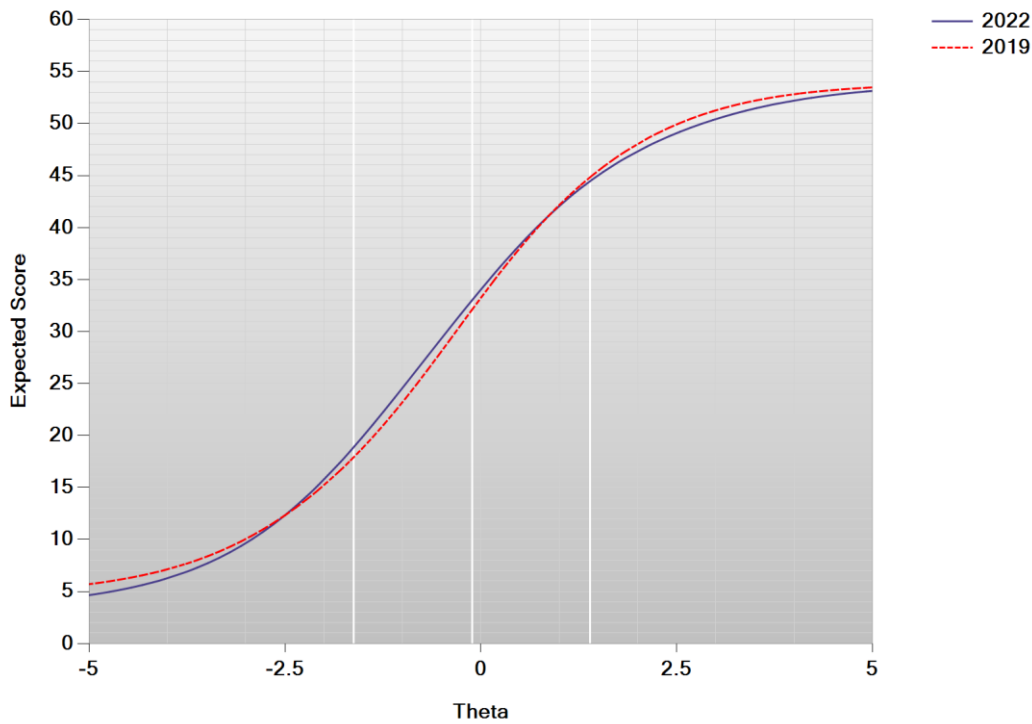
B/B Plot: Science Grade 5



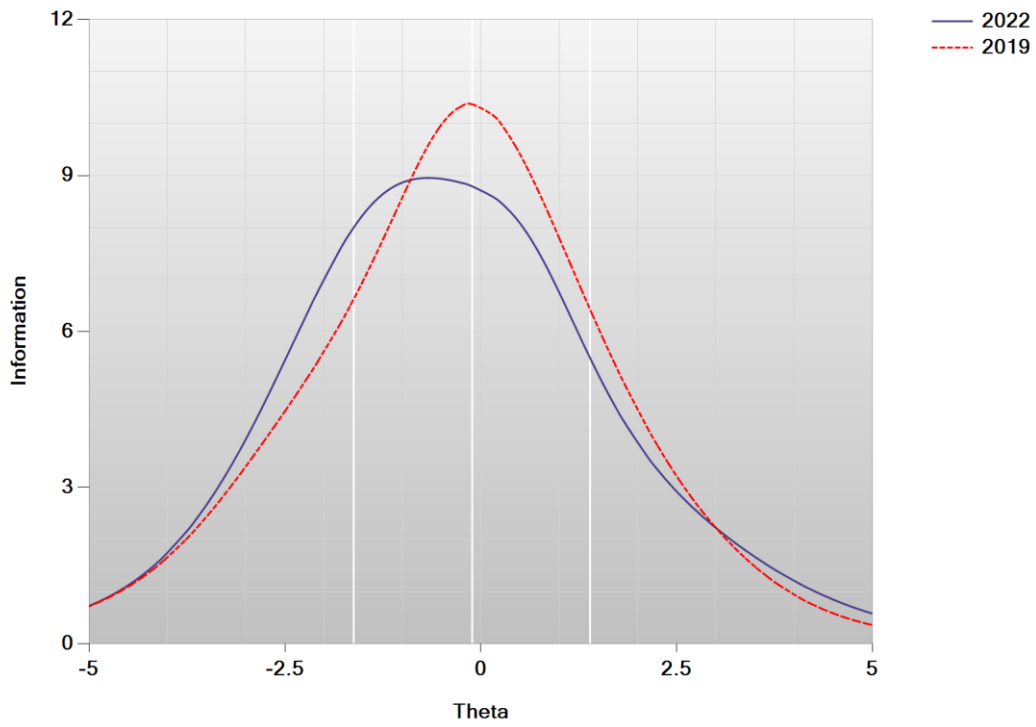
Delta Plot: Science Grade 5



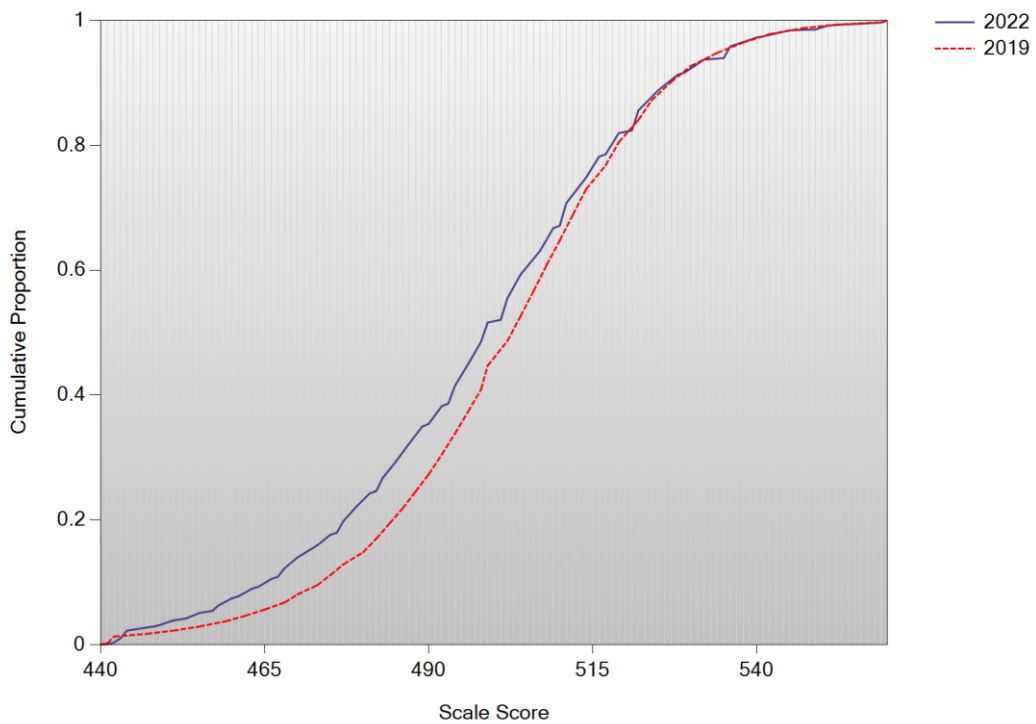
Test Characteristic Curve: Science Grade 5



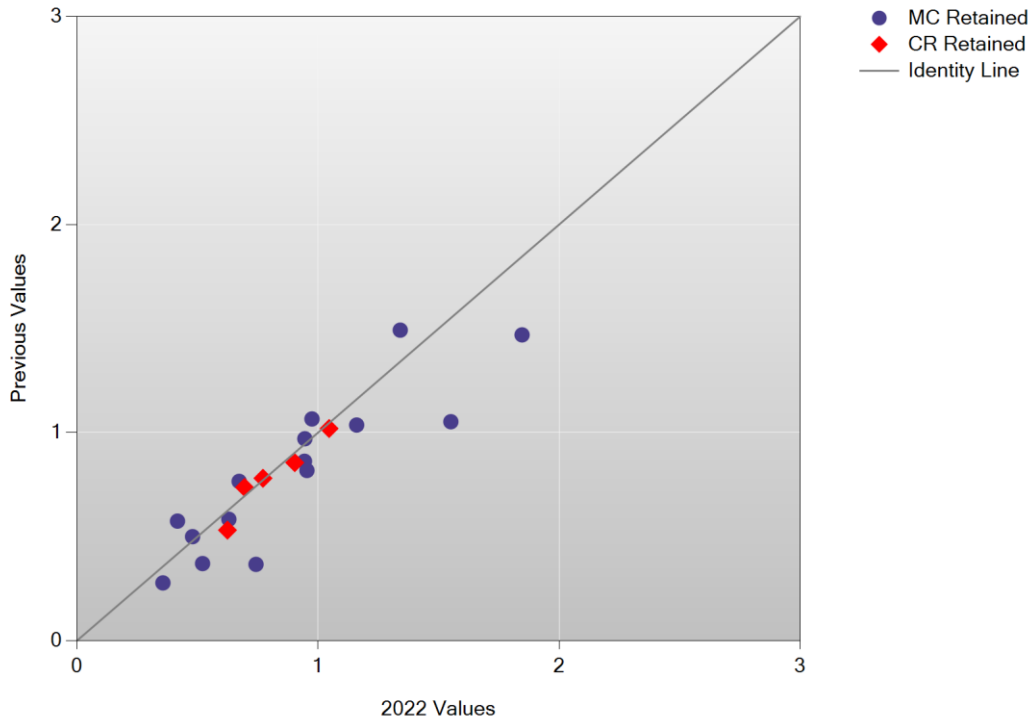
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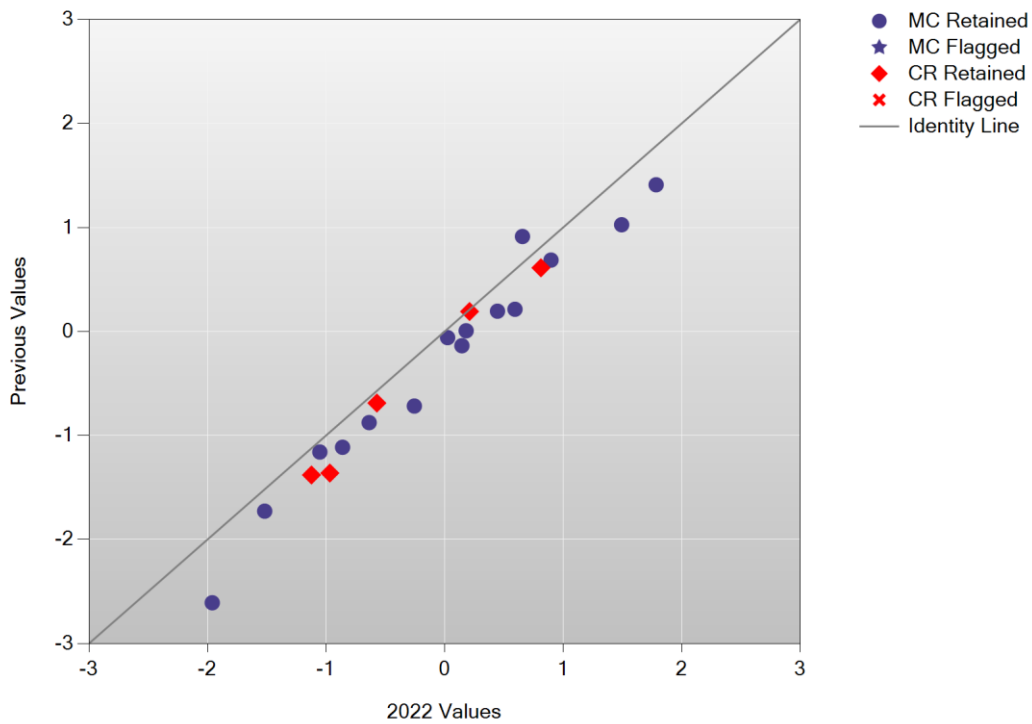
Cumulative Scale Score Distributions: Science Grade 5



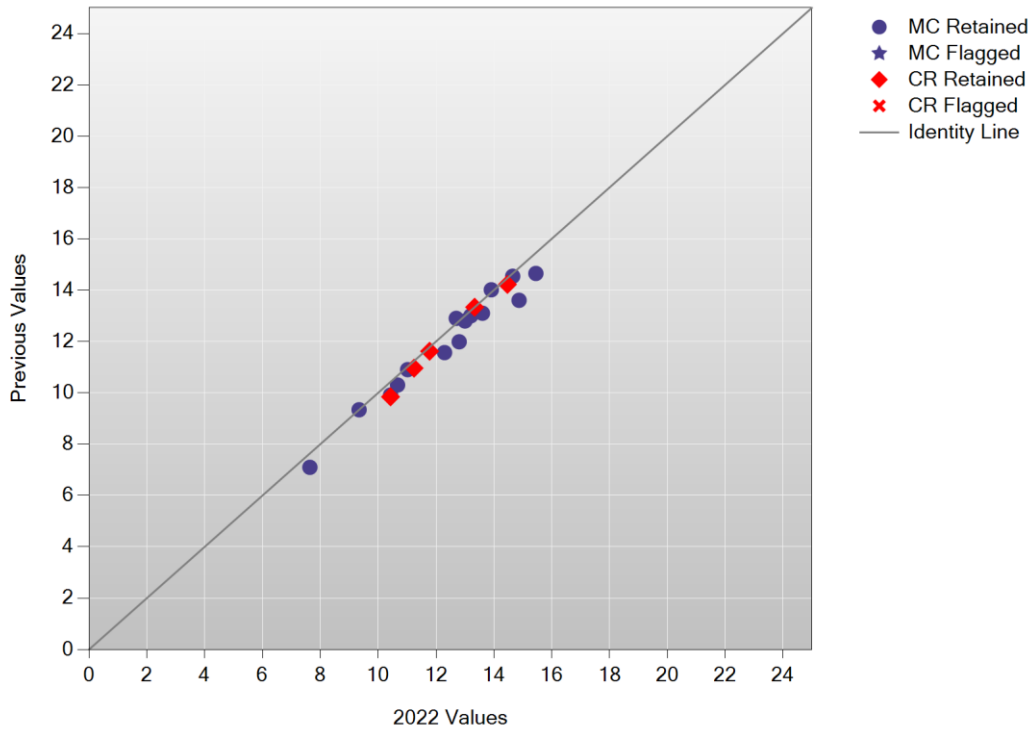
A/A Plot: Science Grade 8



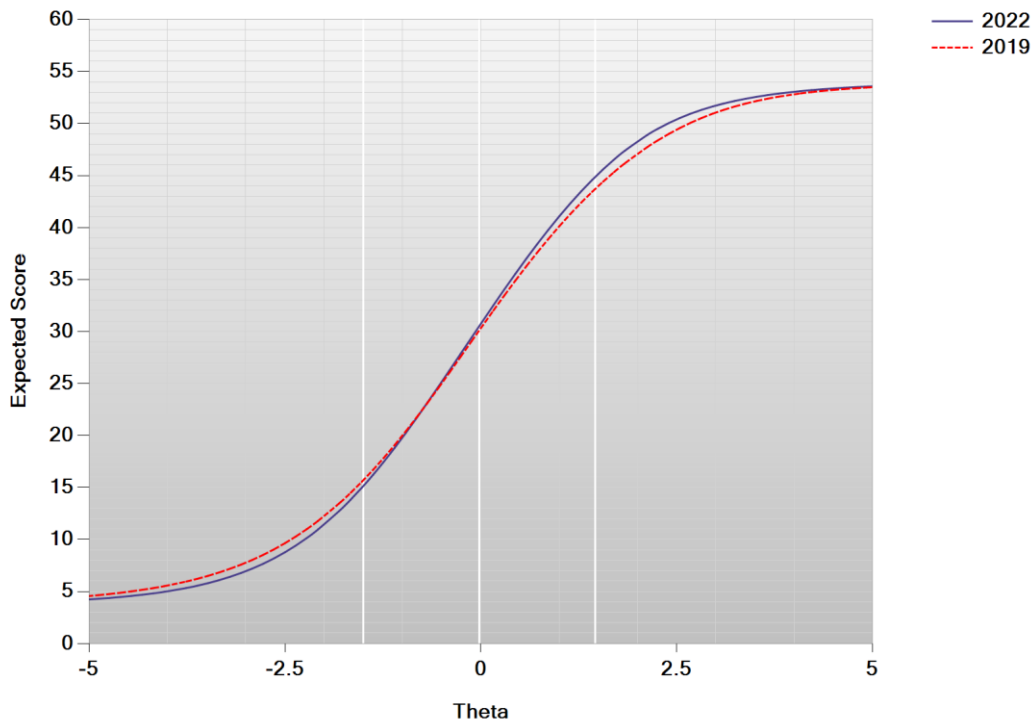
B/B Plot: Science Grade 8



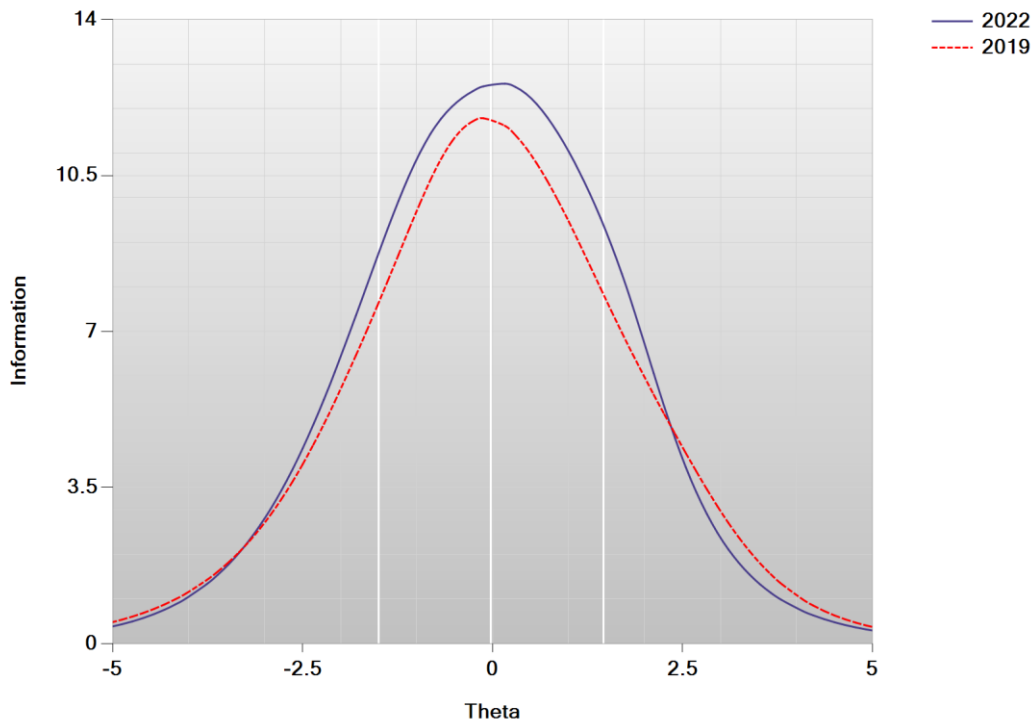
Delta Plot: Science Grade 8



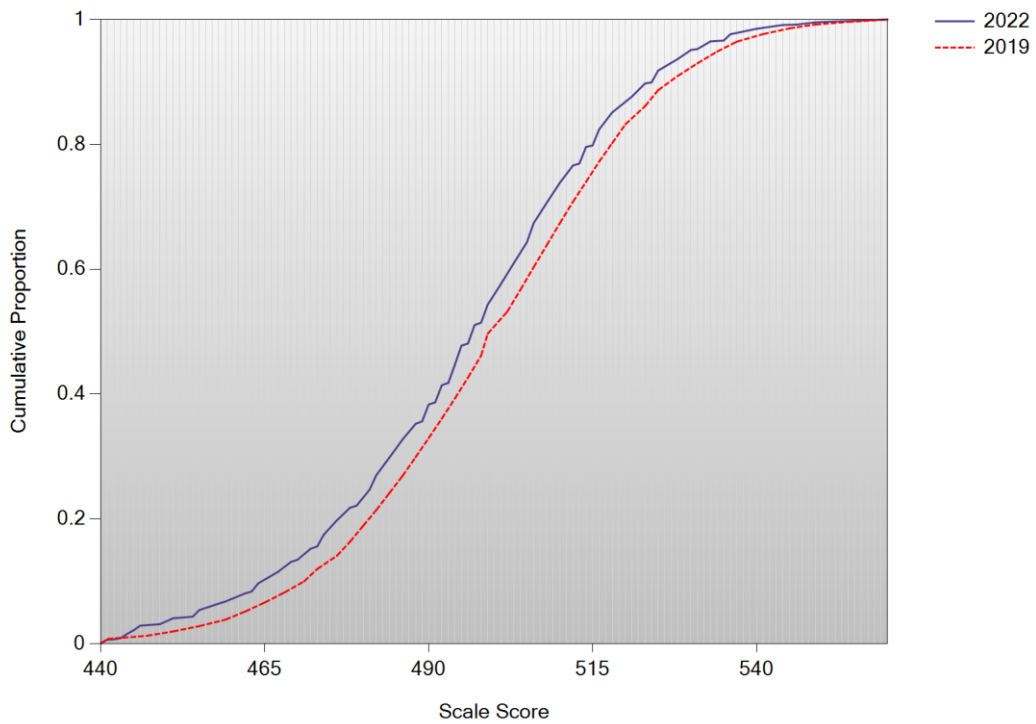
Test Characteristic Curve: Science Grade 8



Test Information Function: Science Grade 8



Cumulative Scale Score Distributions: Science Grade 8



Section 2.2

Lookup Tables

Table 2.2.1
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 3

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.173	1.77	10.0	440	1	440	1
1	-3.123	1.87	10.0	441	1	443	1
2	-3.073	1.97	10.0	442	1	446	1
3	-3.022	2.07	10.0	443	1	448	1
4	-2.972	2.18	10.0	444	1	451	1
5	-2.922	2.30	10.0	445	1	463	1
6	-2.871	2.43	10.0	446	1	471	2
7	-2.821	2.56	10.0	447	1	476	2
8	-2.526	3.51	10.0	452	1	481	2
9	-2.292	4.50	8.9	457	1	485	2
10	-2.096	5.49	8.0	460	1	489	2
11	-1.927	6.44	7.4	463	1	492	2
12	-1.776	7.33	7.0	466	1	495	2
13	-1.639	8.13	6.6	469	1	499	2
14	-1.511	8.84	6.3	471	2	502	3
15	-1.390	9.45	6.1	474	2	506	3
16	-1.275	9.97	6.0	476	2	510	3
17	-1.163	10.38	5.8	478	2	514	3
18	-1.054	10.69	5.8	480	2	518	3
19	-0.946	10.91	5.7	482	2	524	3
20	-0.838	11.03	5.7	484	2	530	4
21	-0.730	11.05	5.7	486	2	540	4
22	-0.621	10.98	5.7	488	2	555	4
23	-0.511	10.81	5.7	490	2	560	4
24	-0.398	10.57	5.8	492	2	N/A	N/A
25	-0.281	10.25	5.9	494	2	N/A	N/A
26	-0.161	9.86	6.0	497	2	N/A	N/A
27	-0.036	9.43	6.1	499	2	N/A	N/A
28	0.095	8.94	6.3	502	3	N/A	N/A
29	0.232	8.43	6.5	504	3	N/A	N/A
30	0.377	7.88	6.7	507	3	N/A	N/A
31	0.531	7.31	7.0	510	3	N/A	N/A
32	0.695	6.73	7.3	513	3	N/A	N/A
33	0.872	6.13	7.6	516	3	N/A	N/A
34	1.063	5.52	8.0	520	3	N/A	N/A
35	1.270	4.90	8.5	524	3	N/A	N/A
36	1.498	4.31	9.1	528	3	N/A	N/A
37	1.749	3.75	9.7	533	4	N/A	N/A
38	2.029	3.24	10.0	538	4	N/A	N/A
39	2.343	2.79	10.0	544	4	N/A	N/A
40	2.702	2.37	10.0	551	4	N/A	N/A
41	3.128	1.93	10.0	559	4	N/A	N/A
42	3.196	1.86	10.0	560	4	N/A	N/A
43	3.196	1.86	10.0	560	4	N/A	N/A
44	3.196	1.86	10.0	560	4	N/A	N/A

Table 2.2.2
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 4

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.153	1.64	10.0	440	1	440	1
1	-3.137	1.68	10.0	440	1	443	1
2	-3.121	1.71	10.0	441	1	446	1
3	-3.105	1.75	10.0	441	1	448	1
4	-3.089	1.78	10.0	441	1	451	1
5	-3.073	1.82	10.0	442	1	461	1
6	-3.057	1.86	10.0	442	1	469	1
7	-3.041	1.90	10.0	442	1	474	2
8	-2.694	2.97	10.0	449	1	479	2
9	-2.434	4.09	9.3	454	1	482	2
10	-2.222	5.17	8.3	458	1	486	2
11	-2.042	6.20	7.6	461	1	489	2
12	-1.883	7.16	7.0	464	1	492	2
13	-1.739	8.02	6.7	467	1	495	2
14	-1.606	8.78	6.4	469	1	498	2
15	-1.482	9.43	6.1	471	2	501	3
16	-1.363	9.96	6.0	474	2	504	3
17	-1.249	10.36	5.9	476	2	508	3
18	-1.138	10.66	5.8	478	2	512	3
19	-1.030	10.85	5.7	480	2	516	3
20	-0.922	10.97	5.7	482	2	522	3
21	-0.816	11.03	5.7	484	2	528	3
22	-0.710	11.05	5.7	486	2	536	4
23	-0.603	11.04	5.7	488	2	549	4
24	-0.496	11.01	5.7	490	2	560	4
25	-0.389	10.95	5.7	492	2	N/A	N/A
26	-0.279	10.85	5.7	494	2	N/A	N/A
27	-0.168	10.69	5.8	496	2	N/A	N/A
28	-0.055	10.46	5.8	498	2	N/A	N/A
29	0.062	10.13	5.9	501	3	N/A	N/A
30	0.184	9.70	6.1	503	3	N/A	N/A
31	0.310	9.20	6.2	505	3	N/A	N/A
32	0.443	8.63	6.4	508	3	N/A	N/A
33	0.583	8.02	6.7	510	3	N/A	N/A
34	0.732	7.42	6.9	513	3	N/A	N/A
35	0.893	6.82	7.2	516	3	N/A	N/A
36	1.066	6.25	7.5	520	3	N/A	N/A
37	1.256	5.67	7.9	523	3	N/A	N/A
38	1.466	5.05	8.4	527	3	N/A	N/A
39	1.705	4.38	9.0	532	4	N/A	N/A
40	1.987	3.65	9.9	537	4	N/A	N/A
41	2.333	2.90	10.0	543	4	N/A	N/A
42	2.789	2.13	10.0	552	4	N/A	N/A
43	3.215	1.52	10.0	560	4	N/A	N/A
44	3.215	1.52	10.0	560	4	N/A	N/A

Table 2.2.3
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 5

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.360	2.18	10.0	440	1	440	1
1	-3.308	2.33	10.0	441	1	442	1
2	-3.256	2.48	10.0	442	1	443	1
3	-3.204	2.64	10.0	443	1	445	1
4	-3.152	2.82	10.0	444	1	446	1
5	-3.101	3.01	10.0	445	1	455	1
6	-3.049	3.21	9.9	446	1	461	1
7	-2.796	4.44	8.4	450	1	466	1
8	-2.595	5.76	7.4	454	1	470	2
9	-2.426	7.13	6.6	457	1	474	2
10	-2.280	8.49	6.1	459	1	477	2
11	-2.149	9.77	5.7	461	1	481	2
12	-2.029	10.94	5.3	464	1	484	2
13	-1.918	11.96	5.0	466	1	487	2
14	-1.813	12.80	4.9	467	1	491	2
15	-1.713	13.47	4.7	469	1	494	2
16	-1.616	13.96	4.7	471	2	498	2
17	-1.521	14.29	4.7	472	2	502	3
18	-1.428	14.47	4.6	474	2	505	3
19	-1.336	14.53	4.6	476	2	510	3
20	-1.244	14.48	4.6	477	2	514	3
21	-1.152	14.33	4.7	479	2	519	3
22	-1.059	14.10	4.7	481	2	524	3
23	-0.965	13.81	4.8	482	2	530	4
24	-0.869	13.48	4.8	484	2	537	4
25	-0.772	13.11	4.9	486	2	546	4
26	-0.672	12.72	5.0	487	2	559	4
27	-0.569	12.33	5.0	489	2	560	4
28	-0.464	11.94	5.1	491	2	N/A	N/A
29	-0.356	11.57	5.2	493	2	N/A	N/A
30	-0.244	11.21	5.3	495	2	N/A	N/A
31	-0.130	10.86	5.4	497	2	N/A	N/A
32	-0.011	10.52	5.5	499	2	N/A	N/A
33	0.111	10.16	5.5	501	3	N/A	N/A
34	0.237	9.78	5.7	504	3	N/A	N/A
35	0.368	9.36	5.8	506	3	N/A	N/A
36	0.505	8.89	5.9	508	3	N/A	N/A
37	0.649	8.36	6.1	511	3	N/A	N/A

Table 2.2.3 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 5

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.801	7.80	6.3	514	3	N/A	N/A
39	0.965	7.23	6.6	516	3	N/A	N/A
40	1.141	6.68	6.8	520	3	N/A	N/A
41	1.334	6.18	7.1	523	3	N/A	N/A
42	1.547	5.70	7.4	527	3	N/A	N/A
43	1.787	5.16	7.8	531	4	N/A	N/A
44	2.065	4.45	8.4	536	4	N/A	N/A
45	2.411	3.52	9.4	542	4	N/A	N/A
46	2.883	2.52	10.0	550	4	N/A	N/A
47	3.430	1.91	10.0	560	4	N/A	N/A
48	3.430	1.91	10.0	560	4	N/A	N/A

Table 2.2.4
Raw Score to Scale Score Lookup Table
English Language Arts Grade 6

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.171	3.24	10.0	440	1	440	1
1	-3.154	3.30	10.0	440	1	442	1
2	-3.137	3.35	10.0	441	1	443	1
3	-3.120	3.41	10.0	441	1	445	1
4	-3.102	3.47	10.0	441	1	446	1
5	-3.085	3.52	10.0	442	1	448	1
6	-3.068	3.58	10.0	442	1	456	1
7	-3.051	3.64	9.9	442	1	462	1
8	-3.033	3.70	9.9	443	1	467	1
9	-3.016	3.77	9.8	443	1	472	2
10	-2.797	4.60	8.9	447	1	476	2
11	-2.606	5.38	8.2	451	1	481	2
12	-2.435	6.08	7.7	454	1	484	2
13	-2.279	6.69	7.3	457	1	488	2
14	-2.133	7.21	7.1	460	1	492	2
15	-1.996	7.64	6.9	462	1	496	2
16	-1.864	7.97	6.7	465	1	499	2
17	-1.736	8.23	6.6	467	1	503	3
18	-1.611	8.42	6.5	469	1	507	3
19	-1.489	8.55	6.5	472	2	510	3
20	-1.369	8.66	6.5	474	2	514	3
21	-1.249	8.74	6.4	476	2	519	3
22	-1.131	8.83	6.4	479	2	523	3
23	-1.013	8.92	6.4	481	2	528	3
24	-0.896	9.02	6.3	483	2	534	4
25	-0.779	9.13	6.3	485	2	540	4
26	-0.662	9.23	6.2	488	2	547	4
27	-0.545	9.31	6.2	490	2	557	4
28	-0.428	9.36	6.2	492	2	560	4
29	-0.311	9.36	6.2	494	2	560	4
30	-0.191	9.29	6.2	497	2	N/A	N/A
31	-0.070	9.15	6.3	499	2	N/A	N/A
32	0.054	8.95	6.3	501	3	N/A	N/A
33	0.182	8.68	6.4	504	3	N/A	N/A
34	0.314	8.37	6.6	506	3	N/A	N/A
35	0.452	8.04	6.7	509	3	N/A	N/A
36	0.595	7.71	6.8	512	3	N/A	N/A
37	0.745	7.40	7.0	514	3	N/A	N/A

Table 2.2.4 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 6

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.903	7.11	7.1	517	3	N/A	N/A
39	1.068	6.82	7.3	520	3	N/A	N/A
40	1.244	6.49	7.5	524	3	N/A	N/A
41	1.431	6.09	7.7	527	3	N/A	N/A
42	1.634	5.60	8.0	531	4	N/A	N/A
43	1.859	5.01	8.5	535	4	N/A	N/A
44	2.112	4.38	9.1	540	4	N/A	N/A
45	2.403	3.75	9.8	546	4	N/A	N/A
46	2.744	3.15	10.0	552	4	N/A	N/A
47	3.150	2.63	10.0	560	4	N/A	N/A
48	3.150	2.63	10.0	560	4	N/A	N/A
49	3.150	2.63	10.0	560	4	N/A	N/A
50	3.150	2.63	10.0	560	4	N/A	N/A

Table 2.2.5
Raw Score to Scale Score Lookup Table
English Language Arts Grade 7

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.131	3.09	10.0	440	1	440	1
1	-3.111	3.18	10.0	440	1	442	1
2	-3.091	3.26	10.0	441	1	443	1
3	-3.070	3.35	10.0	441	1	445	1
4	-3.050	3.43	10.0	442	1	447	1
5	-3.030	3.52	10.0	442	1	448	1
6	-3.010	3.62	10.0	442	1	455	1
7	-2.990	3.71	9.9	443	1	461	1
8	-2.970	3.81	9.8	443	1	465	1
9	-2.731	5.10	8.5	448	1	469	1
10	-2.534	6.34	7.6	451	1	473	2
11	-2.363	7.46	7.0	455	1	477	2
12	-2.210	8.44	6.6	458	1	480	2
13	-2.071	9.23	6.3	460	1	483	2
14	-1.940	9.84	6.1	463	1	487	2
15	-1.816	10.26	6.0	465	1	490	2
16	-1.696	10.53	5.9	467	1	494	2
17	-1.580	10.69	5.8	469	1	497	2
18	-1.466	10.77	5.8	472	2	501	3
19	-1.354	10.84	5.8	474	2	504	3
20	-1.244	10.92	5.8	476	2	508	3
21	-1.134	11.06	5.7	478	2	512	3
22	-1.027	11.26	5.7	480	2	517	3
23	-0.920	11.51	5.6	482	2	522	3
24	-0.815	11.79	5.6	484	2	528	3
25	-0.711	12.07	5.5	486	2	534	4
26	-0.608	12.30	5.4	488	2	543	4
27	-0.506	12.47	5.4	490	2	555	4
28	-0.403	12.54	5.4	492	2	560	4
29	-0.300	12.52	5.4	494	2	N/A	N/A
30	-0.196	12.40	5.4	496	2	N/A	N/A
31	-0.091	12.23	5.5	498	2	N/A	N/A
32	0.017	12.02	5.5	500	3	N/A	N/A
33	0.127	11.81	5.6	502	3	N/A	N/A
34	0.240	11.63	5.6	504	3	N/A	N/A
35	0.356	11.49	5.6	507	3	N/A	N/A
36	0.475	11.35	5.7	509	3	N/A	N/A
37	0.597	11.20	5.7	511	3	N/A	N/A

Table 2.2.5 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 7

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.724	10.96	5.8	514	3	N/A	N/A
39	0.857	10.59	5.9	516	3	N/A	N/A
40	0.996	10.04	6.0	519	3	N/A	N/A
41	1.146	9.32	6.3	522	3	N/A	N/A
42	1.309	8.44	6.6	525	3	N/A	N/A
43	1.489	7.51	7.0	528	3	N/A	N/A
44	1.690	6.58	7.4	532	4	N/A	N/A
45	1.920	5.68	8.0	536	4	N/A	N/A
46	2.187	4.87	8.7	542	4	N/A	N/A
47	2.500	4.26	9.3	548	4	N/A	N/A
48	2.882	3.63	10.0	555	4	N/A	N/A
49	3.153	2.94	10.0	560	4	N/A	N/A
50	3.153	2.94	10.0	560	4	N/A	N/A

Table 2.2.6
Raw Score to Scale Score Lookup Table
English Language Arts Grade 8

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-2.964	4.57	9.3	440	1	440	1
1	-2.958	4.60	9.3	440	1	441	1
2	-2.953	4.62	9.3	440	1	441	1
3	-2.947	4.65	9.2	440	1	442	1
4	-2.942	4.68	9.2	440	1	443	1
5	-2.936	4.71	9.2	441	1	444	1
6	-2.931	4.73	9.1	441	1	444	1
7	-2.925	4.76	9.1	441	1	451	1
8	-2.920	4.79	9.1	441	1	457	1
9	-2.914	4.82	9.1	441	1	462	1
10	-2.909	4.85	9.0	441	1	466	1
11	-2.724	5.96	8.2	445	1	470	2
12	-2.561	7.22	7.4	448	1	474	2
13	-2.413	8.61	6.8	451	1	478	2
14	-2.279	10.06	6.3	454	1	481	2
15	-2.156	11.47	5.9	456	1	485	2
16	-2.041	12.73	5.6	458	1	489	2
17	-1.932	13.76	5.4	461	1	492	2
18	-1.828	14.49	5.2	463	1	496	2
19	-1.726	14.88	5.2	465	1	499	2
20	-1.626	14.97	5.1	467	1	503	3
21	-1.526	14.81	5.2	469	1	507	3
22	-1.426	14.52	5.2	471	2	511	3
23	-1.325	14.21	5.3	473	2	516	3
24	-1.222	13.98	5.3	475	2	521	3
25	-1.118	13.91	5.3	477	2	527	3
26	-1.014	14.00	5.3	479	2	535	4
27	-0.909	14.18	5.3	481	2	545	4
28	-0.803	14.35	5.3	483	2	559	4
29	-0.697	14.40	5.2	485	2	560	4
30	-0.589	14.25	5.3	487	2	N/A	N/A
31	-0.479	13.89	5.3	489	2	N/A	N/A
32	-0.365	13.38	5.4	492	2	N/A	N/A
33	-0.247	12.85	5.6	494	2	N/A	N/A
34	-0.125	12.45	5.6	497	2	N/A	N/A
35	0.002	12.30	5.7	499	2	N/A	N/A
36	0.131	12.38	5.7	502	3	N/A	N/A
37	0.263	12.51	5.6	504	3	N/A	N/A

Table 2.2.6 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 8

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.398	12.44	5.6	507	3	N/A	N/A
39	0.539	11.96	5.8	510	3	N/A	N/A
40	0.689	11.01	6.0	513	3	N/A	N/A
41	0.853	9.76	6.4	516	3	N/A	N/A
42	1.035	8.57	6.8	520	3	N/A	N/A
43	1.239	7.68	7.2	524	3	N/A	N/A
44	1.463	6.97	7.5	528	3	N/A	N/A
45	1.713	6.14	8.0	533	4	N/A	N/A
46	1.999	5.47	8.5	539	4	N/A	N/A
47	2.321	5.26	8.7	545	4	N/A	N/A
48	2.703	4.30	9.6	553	4	N/A	N/A
49	3.066	2.59	10.0	560	4	N/A	N/A
50	3.066	2.59	10.0	560	4	N/A	N/A

Table 2.2.7
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 10

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.157	3.73	10.0	440	1	440	1
1	-3.132	3.83	10.0	441	1	441	1
2	-3.106	3.94	10.0	441	1	441	1
3	-3.081	4.05	10.0	442	1	442	1
4	-3.056	4.18	10.0	442	1	442	1
5	-3.031	4.30	10.0	443	1	443	1
6	-3.006	4.44	10.0	443	1	443	1
7	-2.981	4.58	9.8	444	1	444	1
8	-2.956	4.73	9.7	444	1	444	1
9	-2.931	4.89	9.5	445	1	445	1
10	-2.733	6.50	8.2	449	1	449	1
11	-2.564	8.55	7.2	452	1	453	1
12	-2.419	10.95	6.3	455	1	456	1
13	-2.291	13.56	5.7	458	1	459	1
14	-2.178	16.25	5.2	461	1	461	1
15	-2.075	18.90	4.8	463	1	464	1
16	-1.980	21.39	4.5	465	1	466	1
17	-1.892	23.51	4.3	467	1	468	1
18	-1.808	25.10	4.2	468	1	469	1
19	-1.727	26.02	4.1	470	2	472	2
20	-1.649	26.33	4.1	472	2	474	2
21	-1.571	26.22	4.1	473	2	475	2
22	-1.494	25.99	4.1	475	2	477	2
23	-1.418	25.90	4.1	477	2	479	2
24	-1.342	26.10	4.1	478	2	481	2
25	-1.266	26.60	4.1	480	2	482	2
26	-1.191	27.26	4.0	481	2	484	2
27	-1.117	27.85	4.0	483	2	486	2
28	-1.042	28.11	4.0	484	2	487	2
29	-0.967	27.88	4.0	486	2	489	2
30	-0.890	27.15	4.0	488	2	491	2
31	-0.812	26.11	4.1	489	2	493	2
32	-0.731	25.08	4.2	491	2	495	2
33	-0.647	24.40	4.3	493	2	497	2
34	-0.562	24.26	4.3	494	2	499	2
35	-0.475	24.56	4.2	496	2	501	3
36	-0.387	24.92	4.2	498	2	503	3
37	-0.297	24.82	4.2	500	3	505	3

Table 2.2.7 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 10

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	-0.203	23.83	4.3	502	3	508	3
39	-0.104	21.84	4.5	504	3	510	3
40	0.004	19.25	4.8	506	3	513	3
41	0.123	16.73	5.1	509	3	516	3
42	0.254	14.85	5.4	512	3	519	3
43	0.400	13.38	5.7	515	3	523	3
44	0.565	11.46	6.2	518	3	527	3
45	0.762	8.60	7.2	522	3	531	4
46	1.019	5.85	8.7	528	3	537	4
47	1.347	5.51	8.9	535	4	543	4
48	1.685	7.73	7.6	542	4	550	4
49	2.016	7.85	7.5	549	4	559	4
50	2.538	2.44	10.0	559	4	560	4
51	2.559	2.29	10.0	560	4	560	4

Table 2.2.8
Raw Score to Scale Score Lookup Table
Mathematics Grade 3

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-2.782	3.18	10.0	440	1	440	1
1	-2.771	3.21	10.0	440	1	441	1
2	-2.761	3.25	10.0	440	1	442	1
3	-2.751	3.28	10.0	441	1	443	1
4	-2.740	3.32	10.0	441	1	455	1
5	-2.730	3.35	10.0	441	1	462	1
6	-2.719	3.39	10.0	441	1	468	1
7	-2.445	4.44	10.0	447	1	473	2
8	-2.224	5.45	9.1	452	1	478	2
9	-2.039	6.42	8.4	456	1	482	2
10	-1.876	7.35	7.9	459	1	485	2
11	-1.731	8.24	7.4	462	1	489	2
12	-1.600	9.08	7.1	465	1	492	2
13	-1.478	9.88	6.8	468	1	496	2
14	-1.364	10.63	6.5	470	2	499	2
15	-1.257	11.34	6.3	473	2	503	3
16	-1.155	12.00	6.2	475	2	506	3
17	-1.057	12.62	6.0	477	2	510	3
18	-0.963	13.19	5.9	479	2	515	3
19	-0.872	13.70	5.8	481	2	519	3
20	-0.783	14.17	5.7	483	2	525	3
21	-0.696	14.57	5.6	485	2	532	4
22	-0.611	14.92	5.5	486	2	541	4
23	-0.526	15.20	5.5	488	2	555	4
24	-0.443	15.41	5.4	490	2	560	4
25	-0.359	15.56	5.4	492	2	N/A	N/A
26	-0.276	15.63	5.4	494	2	N/A	N/A
27	-0.193	15.63	5.4	495	2	N/A	N/A
28	-0.109	15.56	5.4	497	2	N/A	N/A
29	-0.025	15.42	5.4	499	2	N/A	N/A
30	0.062	15.21	5.5	501	3	N/A	N/A
31	0.149	14.92	5.5	503	3	N/A	N/A
32	0.239	14.58	5.6	505	3	N/A	N/A
33	0.331	14.17	5.7	506	3	N/A	N/A
34	0.427	13.71	5.8	509	3	N/A	N/A
35	0.526	13.20	5.9	511	3	N/A	N/A
36	0.630	12.65	6.0	513	3	N/A	N/A
37	0.739	12.06	6.2	515	3	N/A	N/A

Table 2.2.8 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 3

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.855	11.43	6.3	518	3	N/A	N/A
39	0.979	10.73	6.5	520	3	N/A	N/A
40	1.112	9.94	6.8	523	3	N/A	N/A
41	1.259	9.03	7.1	526	3	N/A	N/A
42	1.424	7.95	7.6	529	3	N/A	N/A
43	1.615	6.71	8.2	534	4	N/A	N/A
44	1.845	5.35	9.2	539	4	N/A	N/A
45	2.139	3.92	10.0	545	4	N/A	N/A
46	2.554	2.47	10.0	554	4	N/A	N/A
47	2.837	1.78	10.0	560	4	N/A	N/A
48	2.837	1.78	10.0	560	4	N/A	N/A

Table 2.2.9
Raw Score to Scale Score Lookup Table
Mathematics Grade 4

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-2.812	3.52	10.0	440	1	440	1
1	-2.808	3.53	10.0	440	1	442	1
2	-2.805	3.55	10.0	440	1	444	1
3	-2.802	3.56	10.0	440	1	446	1
4	-2.798	3.57	10.0	440	1	455	1
5	-2.795	3.58	10.0	440	1	461	1
6	-2.526	4.70	9.7	446	1	466	1
7	-2.309	5.76	8.7	451	1	470	2
8	-2.127	6.76	8.1	454	1	474	2
9	-1.967	7.72	7.5	458	1	477	2
10	-1.824	8.63	7.1	461	1	480	2
11	-1.693	9.51	6.8	463	1	484	2
12	-1.574	10.37	6.5	466	1	486	2
13	-1.462	11.21	6.3	468	1	489	2
14	-1.358	12.04	6.0	470	2	492	2
15	-1.260	12.86	5.8	472	2	495	2
16	-1.167	13.66	5.7	474	2	497	2
17	-1.078	14.46	5.5	476	2	500	3
18	-0.993	15.23	5.4	478	2	503	3
19	-0.911	15.99	5.2	480	2	506	3
20	-0.832	16.72	5.1	481	2	509	3
21	-0.755	17.41	5.0	483	2	513	3
22	-0.680	18.05	4.9	485	2	517	3
23	-0.608	18.64	4.8	486	2	522	3
24	-0.536	19.17	4.8	488	2	529	3
25	-0.466	19.62	4.7	489	2	537	4
26	-0.397	20.00	4.7	491	2	552	4
27	-0.328	20.30	4.6	492	2	560	4
28	-0.260	20.52	4.6	493	2	N/A	N/A
29	-0.192	20.66	4.6	495	2	N/A	N/A
30	-0.124	20.72	4.6	496	2	N/A	N/A
31	-0.056	20.70	4.6	498	2	N/A	N/A
32	0.013	20.60	4.6	499	2	N/A	N/A
33	0.082	20.42	4.6	501	3	N/A	N/A
34	0.152	20.17	4.7	502	3	N/A	N/A
35	0.224	19.85	4.7	504	3	N/A	N/A
36	0.297	19.45	4.7	505	3	N/A	N/A
37	0.371	18.99	4.8	507	3	N/A	N/A

Table 2.2.9 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 4

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.448	18.45	4.9	508	3	N/A	N/A
39	0.527	17.85	5.0	510	3	N/A	N/A
40	0.609	17.17	5.1	512	3	N/A	N/A
41	0.695	16.43	5.2	513	3	N/A	N/A
42	0.785	15.63	5.3	515	3	N/A	N/A
43	0.879	14.77	5.4	517	3	N/A	N/A
44	0.980	13.86	5.6	519	3	N/A	N/A
45	1.088	12.89	5.8	522	3	N/A	N/A
46	1.205	11.87	6.1	524	3	N/A	N/A
47	1.333	10.78	6.4	527	3	N/A	N/A
48	1.476	9.61	6.8	529	3	N/A	N/A
49	1.640	8.34	7.3	533	4	N/A	N/A
50	1.832	6.93	8.0	537	4	N/A	N/A
51	2.072	5.35	9.0	542	4	N/A	N/A
52	2.402	3.58	10.0	549	4	N/A	N/A
53	2.920	1.77	10.0	560	4	N/A	N/A
54	2.920	1.77	10.0	560	4	N/A	N/A

Table 2.2.10
Raw Score to Scale Score Lookup Table
Mathematics Grade 5

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.126	2.23	10.0	440	1	440	1
1	-3.120	2.24	10.0	440	1	442	1
2	-3.114	2.26	10.0	440	1	444	1
3	-3.107	2.28	10.0	440	1	446	1
4	-3.101	2.29	10.0	440	1	457	1
5	-3.094	2.31	10.0	441	1	463	1
6	-2.702	3.50	10.0	448	1	468	1
7	-2.422	4.64	8.8	453	1	472	2
8	-2.201	5.74	7.9	458	1	475	2
9	-2.017	6.81	7.3	461	1	479	2
10	-1.858	7.87	6.8	464	1	482	2
11	-1.717	8.92	6.4	467	1	485	2
12	-1.590	9.97	6.0	469	1	487	2
13	-1.474	11.02	5.7	471	2	490	2
14	-1.367	12.07	5.5	474	2	493	2
15	-1.267	13.10	5.3	475	2	496	2
16	-1.173	14.11	5.1	477	2	498	2
17	-1.084	15.09	4.9	479	2	501	3
18	-0.999	16.03	4.8	481	2	504	3
19	-0.918	16.92	4.6	482	2	507	3
20	-0.840	17.75	4.5	484	2	510	3
21	-0.764	18.52	4.4	485	2	513	3
22	-0.690	19.22	4.3	486	2	516	3
23	-0.619	19.84	4.3	488	2	520	3
24	-0.548	20.37	4.2	489	2	524	3
25	-0.479	20.81	4.2	490	2	530	4
26	-0.410	21.16	4.1	492	2	540	4
27	-0.342	21.41	4.1	493	2	560	4
28	-0.274	21.56	4.1	494	2	N/A	N/A
29	-0.207	21.61	4.1	496	2	N/A	N/A
30	-0.139	21.58	4.1	497	2	N/A	N/A
31	-0.071	21.45	4.1	498	2	N/A	N/A
32	-0.002	21.24	4.1	499	2	N/A	N/A
33	0.068	20.96	4.2	501	3	N/A	N/A
34	0.139	20.62	4.2	502	3	N/A	N/A
35	0.211	20.21	4.2	504	3	N/A	N/A
36	0.284	19.77	4.3	505	3	N/A	N/A
37	0.359	19.28	4.3	506	3	N/A	N/A

Table 2.2.10 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 5

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.436	18.76	4.4	508	3	N/A	N/A
39	0.516	18.22	4.5	509	3	N/A	N/A
40	0.598	17.65	4.5	511	3	N/A	N/A
41	0.682	17.06	4.6	513	3	N/A	N/A
42	0.771	16.43	4.7	514	3	N/A	N/A
43	0.863	15.74	4.8	516	3	N/A	N/A
44	0.961	14.98	4.9	518	3	N/A	N/A
45	1.064	14.12	5.1	520	3	N/A	N/A
46	1.175	13.15	5.3	522	3	N/A	N/A
47	1.295	12.04	5.5	524	3	N/A	N/A
48	1.429	10.78	5.8	527	3	N/A	N/A
49	1.580	9.36	6.2	529	3	N/A	N/A
50	1.758	7.77	6.8	533	4	N/A	N/A
51	1.977	6.01	7.8	537	4	N/A	N/A
52	2.274	4.08	9.4	543	4	N/A	N/A
53	2.766	2.01	10.0	552	4	N/A	N/A
54	3.176	1.09	10.0	560	4	N/A	N/A

Table 2.2.11
Raw Score to Scale Score Lookup Table
Mathematics Grade 6

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.028	2.54	10.0	440	1	440	1
1	-2.989	2.68	10.0	441	1	442	1
2	-2.950	2.83	10.0	442	1	443	1
3	-2.911	2.99	10.0	442	1	455	1
4	-2.872	3.15	10.0	443	1	463	1
5	-2.513	4.87	9.0	450	1	468	1
6	-2.256	6.31	7.9	455	1	473	2
7	-2.049	7.57	7.2	459	1	477	2
8	-1.874	8.72	6.7	463	1	481	2
9	-1.720	9.79	6.3	466	1	484	2
10	-1.582	10.80	6.0	469	1	487	2
11	-1.456	11.75	5.8	471	2	490	2
12	-1.340	12.63	5.6	474	2	493	2
13	-1.232	13.44	5.4	476	2	496	2
14	-1.130	14.18	5.3	478	2	498	2
15	-1.032	14.85	5.2	480	2	501	3
16	-0.940	15.46	5.1	481	2	504	3
17	-0.850	16.00	5.0	483	2	507	3
18	-0.764	16.48	4.9	485	2	510	3
19	-0.681	16.92	4.8	487	2	513	3
20	-0.600	17.32	4.8	488	2	516	3
21	-0.521	17.68	4.7	490	2	519	3
22	-0.443	18.01	4.7	491	2	523	3
23	-0.368	18.31	4.6	493	2	528	3
24	-0.293	18.59	4.6	494	2	533	4
25	-0.220	18.86	4.6	496	2	540	4
26	-0.148	19.10	4.5	497	2	553	4
27	-0.077	19.33	4.5	499	2	560	4
28	-0.007	19.54	4.5	500	3	N/A	N/A
29	0.063	19.73	4.5	501	3	N/A	N/A
30	0.132	19.90	4.5	503	3	N/A	N/A
31	0.201	20.04	4.4	504	3	N/A	N/A
32	0.269	20.15	4.4	506	3	N/A	N/A
33	0.338	20.22	4.4	507	3	N/A	N/A
34	0.407	20.26	4.4	508	3	N/A	N/A
35	0.477	20.25	4.4	510	3	N/A	N/A
36	0.547	20.19	4.4	511	3	N/A	N/A
37	0.618	20.06	4.4	512	3	N/A	N/A

Table 2.2.11 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 6

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.690	19.86	4.5	514	3	N/A	N/A
39	0.764	19.57	4.5	515	3	N/A	N/A
40	0.840	19.18	4.5	517	3	N/A	N/A
41	0.918	18.68	4.6	518	3	N/A	N/A
42	1.000	18.06	4.7	520	3	N/A	N/A
43	1.085	17.30	4.8	522	3	N/A	N/A
44	1.176	16.39	4.9	524	3	N/A	N/A
45	1.273	15.32	5.1	525	3	N/A	N/A
46	1.378	14.09	5.3	528	3	N/A	N/A
47	1.495	12.69	5.6	529	3	N/A	N/A
48	1.626	11.10	6.0	532	4	N/A	N/A
49	1.779	9.34	6.5	536	4	N/A	N/A
50	1.966	7.40	7.3	539	4	N/A	N/A
51	2.209	5.29	8.6	544	4	N/A	N/A
52	2.570	3.09	10.0	551	4	N/A	N/A
53	3.011	1.59	10.0	560	4	N/A	N/A
54	3.011	1.59	10.0	560	4	N/A	N/A

Table 2.2.12
Raw Score to Scale Score Lookup Table
Mathematics Grade 7

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-2.859	1.41	10.0	440	1	440	1
1	-2.807	1.54	10.0	441	1	445	1
2	-2.755	1.69	10.0	442	1	451	1
3	-2.703	1.85	10.0	443	1	456	1
4	-2.651	2.02	10.0	444	1	465	1
5	-2.599	2.20	10.0	445	1	471	2
6	-2.164	4.31	10.0	454	1	476	2
7	-1.887	6.24	8.3	460	1	480	2
8	-1.677	7.96	7.4	465	1	483	2
9	-1.504	9.48	6.7	468	1	486	2
10	-1.355	10.78	6.3	471	2	489	2
11	-1.221	11.87	6.0	474	2	492	2
12	-1.100	12.75	5.8	477	2	495	2
13	-0.987	13.47	5.7	479	2	497	2
14	-0.881	14.06	5.5	481	2	499	2
15	-0.780	14.56	5.4	483	2	503	3
16	-0.683	15.00	5.4	485	2	505	3
17	-0.591	15.40	5.3	487	2	508	3
18	-0.502	15.78	5.2	489	2	511	3
19	-0.415	16.15	5.2	491	2	514	3
20	-0.332	16.51	5.1	492	2	517	3
21	-0.251	16.88	5.1	494	2	520	3
22	-0.172	17.26	5.0	496	2	524	3
23	-0.095	17.66	4.9	497	2	528	3
24	-0.020	18.09	4.9	499	2	534	4
25	0.053	18.54	4.8	500	3	541	4
26	0.125	19.04	4.8	502	3	552	4
27	0.195	19.57	4.7	503	3	560	4
28	0.264	20.14	4.6	505	3	N/A	N/A
29	0.332	20.73	4.6	506	3	N/A	N/A
30	0.398	21.34	4.5	508	3	N/A	N/A
31	0.464	21.96	4.4	509	3	N/A	N/A
32	0.529	22.56	4.4	510	3	N/A	N/A
33	0.593	23.14	4.3	512	3	N/A	N/A
34	0.657	23.66	4.3	513	3	N/A	N/A
35	0.721	24.12	4.2	514	3	N/A	N/A
36	0.785	24.48	4.2	516	3	N/A	N/A
37	0.849	24.72	4.2	517	3	N/A	N/A

Table 2.2.12 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 7

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.914	24.82	4.2	518	3	N/A	N/A
39	0.980	24.76	4.2	520	3	N/A	N/A
40	1.047	24.52	4.2	521	3	N/A	N/A
41	1.116	24.09	4.2	523	3	N/A	N/A
42	1.188	23.45	4.3	524	3	N/A	N/A
43	1.263	22.59	4.4	526	3	N/A	N/A
44	1.342	21.51	4.5	527	3	N/A	N/A
45	1.426	20.20	4.6	529	3	N/A	N/A
46	1.517	18.67	4.8	531	4	N/A	N/A
47	1.617	16.92	5.0	533	4	N/A	N/A
48	1.729	14.95	5.4	535	4	N/A	N/A
49	1.857	12.76	5.8	538	4	N/A	N/A
50	2.011	10.36	6.4	541	4	N/A	N/A
51	2.206	7.76	7.5	545	4	N/A	N/A
52	2.480	5.00	9.3	551	4	N/A	N/A
53	2.922	2.39	10.0	560	4	N/A	N/A
54	2.922	2.39	10.0	560	4	N/A	N/A

Table 2.2.13
Raw Score to Scale Score Lookup Table
Mathematics Grade 8

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-2.983	1.94	10.0	440	1	440	1
1	-2.913	2.12	10.0	441	1	442	1
2	-2.843	2.32	10.0	443	1	445	1
3	-2.773	2.53	10.0	444	1	447	1
4	-2.704	2.75	10.0	446	1	460	1
5	-2.634	2.99	10.0	447	1	467	1
6	-2.564	3.25	10.0	448	1	473	2
7	-2.274	4.56	9.4	454	1	478	2
8	-2.051	5.86	8.3	459	1	482	2
9	-1.869	7.17	7.5	462	1	486	2
10	-1.713	8.50	6.9	466	1	489	2
11	-1.578	9.84	6.4	468	1	492	2
12	-1.457	11.17	6.0	471	2	495	2
13	-1.347	12.49	5.7	473	2	498	2
14	-1.246	13.77	5.4	475	2	500	3
15	-1.153	15.00	5.2	477	2	503	3
16	-1.065	16.15	5.0	479	2	505	3
17	-0.982	17.22	4.9	480	2	508	3
18	-0.903	18.17	4.7	482	2	510	3
19	-0.827	19.00	4.6	483	2	513	3
20	-0.754	19.71	4.5	485	2	516	3
21	-0.683	20.28	4.5	486	2	518	3
22	-0.614	20.73	4.4	488	2	522	3
23	-0.546	21.06	4.4	489	2	525	3
24	-0.479	21.28	4.4	491	2	529	3
25	-0.412	21.39	4.4	492	2	535	4
26	-0.347	21.42	4.4	493	2	544	4
27	-0.282	21.37	4.4	494	2	560	4
28	-0.217	21.26	4.4	496	2	N/A	N/A
29	-0.152	21.09	4.4	497	2	N/A	N/A
30	-0.087	20.89	4.4	498	2	N/A	N/A
31	-0.022	20.66	4.4	499	2	N/A	N/A
32	0.044	20.39	4.5	501	3	N/A	N/A
33	0.110	20.11	4.5	502	3	N/A	N/A
34	0.177	19.81	4.5	504	3	N/A	N/A
35	0.245	19.50	4.6	505	3	N/A	N/A
36	0.313	19.16	4.6	506	3	N/A	N/A
37	0.383	18.81	4.7	508	3	N/A	N/A

Table 2.2.13 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 8

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.455	18.44	4.7	509	3	N/A	N/A
39	0.528	18.03	4.7	511	3	N/A	N/A
40	0.603	17.60	4.8	512	3	N/A	N/A
41	0.680	17.12	4.9	514	3	N/A	N/A
42	0.761	16.59	5.0	516	3	N/A	N/A
43	0.845	15.99	5.0	517	3	N/A	N/A
44	0.933	15.32	5.2	519	3	N/A	N/A
45	1.027	14.54	5.3	521	3	N/A	N/A
46	1.127	13.65	5.5	523	3	N/A	N/A
47	1.237	12.62	5.7	525	3	N/A	N/A
48	1.358	11.42	6.0	528	3	N/A	N/A
49	1.496	10.03	6.4	530	4	N/A	N/A
50	1.659	8.42	7.0	534	4	N/A	N/A
51	1.862	6.56	7.9	538	4	N/A	N/A
52	2.142	4.43	9.6	543	4	N/A	N/A
53	2.620	2.11	10.0	553	4	N/A	N/A
54	2.966	1.22	10.0	560	4	N/A	N/A

Table 2.2.14
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 10

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.124	1.44	10.0	440	1	440	1
1	-3.074	1.57	10.0	441	1	441	1
2	-3.023	1.71	10.0	442	1	442	1
3	-2.972	1.85	10.0	443	1	443	1
4	-2.922	2.01	10.0	444	1	444	1
5	-2.871	2.19	10.0	445	1	445	1
6	-2.487	4.03	10.0	454	1	446	1
7	-2.233	5.89	8.8	459	1	447	1
8	-2.040	7.68	7.7	463	1	448	1
9	-1.883	9.38	7.0	467	1	455	1
10	-1.749	10.97	6.5	469	1	460	1
11	-1.630	12.43	6.1	472	2	464	1
12	-1.524	13.78	5.8	474	2	468	1
13	-1.426	15.02	5.5	476	2	471	2
14	-1.335	16.16	5.3	478	2	474	2
15	-1.251	17.20	5.2	480	2	476	2
16	-1.170	18.17	5.0	482	2	478	2
17	-1.094	19.05	4.9	483	2	481	2
18	-1.021	19.86	4.8	485	2	482	2
19	-0.950	20.60	4.7	486	2	484	2
20	-0.883	21.29	4.6	488	2	486	2
21	-0.817	21.91	4.6	489	2	488	2
22	-0.753	22.50	4.5	491	2	489	2
23	-0.691	23.04	4.5	492	2	491	2
24	-0.630	23.54	4.4	493	2	492	2
25	-0.570	24.02	4.4	495	2	494	2
26	-0.511	24.47	4.3	496	2	495	2
27	-0.454	24.89	4.3	497	2	496	2
28	-0.397	25.30	4.2	498	2	498	2
29	-0.340	25.68	4.2	499	2	499	2
30	-0.285	26.04	4.2	501	3	500	3
31	-0.230	26.37	4.2	502	3	501	3
32	-0.175	26.67	4.1	503	3	503	3
33	-0.120	26.92	4.1	504	3	504	3
34	-0.065	27.14	4.1	505	3	505	3
35	-0.011	27.30	4.1	507	3	506	3
36	0.044	27.39	4.1	508	3	507	3
37	0.099	27.42	4.1	509	3	508	3

Table 2.2.14 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 10

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.154	27.36	4.1	510	3	510	3
39	0.210	27.22	4.1	511	3	511	3
40	0.267	26.98	4.1	512	3	512	3
41	0.325	26.64	4.1	514	3	513	3
42	0.384	26.20	4.2	515	3	514	3
43	0.444	25.64	4.2	516	3	516	3
44	0.507	24.97	4.3	518	3	517	3
45	0.571	24.19	4.3	519	3	518	3
46	0.638	23.29	4.4	520	3	520	3
47	0.708	22.28	4.5	522	3	521	3
48	0.782	21.15	4.6	523	3	523	3
49	0.861	19.92	4.8	525	3	524	3
50	0.945	18.56	5.0	527	3	526	3
51	1.035	17.09	5.2	529	3	527	3
52	1.135	15.51	5.4	531	4	529	3
53	1.245	13.82	5.7	533	4	531	4
54	1.370	12.00	6.2	536	4	534	4
55	1.516	10.07	6.7	539	4	537	4
56	1.691	8.02	7.5	543	4	540	4
57	1.916	5.89	8.8	548	4	544	4
58	2.233	3.75	10.0	555	4	551	4
59	2.490	2.58	10.0	560	4	560	4
60	2.490	2.58	10.0	560	4	560	4

Table 2.2.15
 Raw Score to Scale Score Lookup Table
 Science Grade 5

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-3.130	3.57	10.0	440	1	440	1
1	-3.110	3.62	10.0	440	1	441	1
2	-3.089	3.68	10.0	441	1	443	1
3	-3.069	3.73	10.0	441	1	444	1
4	-3.048	3.79	10.0	442	1	446	1
5	-3.027	3.85	10.0	442	1	447	1
6	-3.007	3.91	10.0	442	1	455	1
7	-2.986	3.96	10.0	443	1	461	1
8	-2.966	4.02	9.9	443	1	466	1
9	-2.945	4.08	9.8	444	1	471	2
10	-2.924	4.14	9.8	444	1	475	2
11	-2.730	4.73	9.1	448	1	479	2
12	-2.554	5.27	8.7	451	1	483	2
13	-2.393	5.78	8.3	455	1	487	2
14	-2.245	6.26	7.9	458	1	491	2
15	-2.105	6.69	7.7	460	1	494	2
16	-1.973	7.09	7.5	463	1	498	2
17	-1.846	7.45	7.3	466	1	502	3
18	-1.725	7.76	7.1	468	1	507	3
19	-1.608	8.03	7.0	470	2	511	3
20	-1.494	8.26	6.9	473	2	516	3
21	-1.383	8.46	6.8	475	2	521	3
22	-1.274	8.61	6.8	477	2	527	3
23	-1.167	8.74	6.7	479	2	533	4
24	-1.061	8.83	6.7	481	2	541	4
25	-0.955	8.89	6.7	483	2	551	4
26	-0.851	8.93	6.7	485	2	560	4
27	-0.746	8.95	6.6	487	2	560	4
28	-0.642	8.95	6.6	489	2	N/A	N/A
29	-0.538	8.94	6.6	492	2	N/A	N/A
30	-0.433	8.92	6.7	494	2	N/A	N/A
31	-0.327	8.89	6.7	496	2	N/A	N/A
32	-0.220	8.85	6.7	498	2	N/A	N/A
33	-0.113	8.79	6.7	499	2	N/A	N/A
34	-0.003	8.73	6.7	502	3	N/A	N/A
35	0.108	8.64	6.8	504	3	N/A	N/A
36	0.222	8.52	6.8	507	3	N/A	N/A
37	0.338	8.36	6.9	509	3	N/A	N/A

Table 2.2.15 (continued)
 Raw Score to Scale Score Lookup Table
 Science Grade 5

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.458	8.16	7.0	511	3	N/A	N/A
39	0.582	7.91	7.1	514	3	N/A	N/A
40	0.712	7.60	7.2	516	3	N/A	N/A
41	0.848	7.22	7.4	519	3	N/A	N/A
42	0.992	6.78	7.6	522	3	N/A	N/A
43	1.146	6.29	7.9	525	3	N/A	N/A
44	1.313	5.75	8.3	528	3	N/A	N/A
45	1.495	5.18	8.7	532	4	N/A	N/A
46	1.696	4.61	9.3	536	4	N/A	N/A
47	1.921	4.04	9.9	540	4	N/A	N/A
48	2.178	3.49	10.0	545	4	N/A	N/A
49	2.474	2.96	10.0	551	4	N/A	N/A
50	2.826	2.45	10.0	558	4	N/A	N/A
51	2.907	2.34	10.0	560	4	N/A	N/A
52	2.907	2.34	10.0	560	4	N/A	N/A
53	2.907	2.34	10.0	560	4	N/A	N/A
54	2.907	2.34	10.0	560	4	N/A	N/A

Table 2.2.16
Raw Score to Scale Score Lookup Table
Science Grade 8

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
0	-2.978	2.87	10.0	440	1	440	1
1	-2.941	2.97	10.0	441	1	441	1
2	-2.905	3.07	10.0	441	1	442	1
3	-2.869	3.17	10.0	442	1	443	1
4	-2.832	3.28	10.0	443	1	444	1
5	-2.796	3.39	10.0	444	1	453	1
6	-2.759	3.50	10.0	444	1	460	1
7	-2.723	3.61	10.0	445	1	465	1
8	-2.687	3.73	10.0	446	1	469	1
9	-2.449	4.57	9.5	451	1	474	2
10	-2.247	5.36	8.8	455	1	477	2
11	-2.072	6.12	8.2	458	1	481	2
12	-1.915	6.82	7.8	462	1	484	2
13	-1.772	7.49	7.4	464	1	488	2
14	-1.640	8.11	7.1	467	1	491	2
15	-1.516	8.69	6.9	469	1	495	2
16	-1.400	9.22	6.7	472	2	498	2
17	-1.289	9.72	6.5	474	2	503	3
18	-1.183	10.17	6.4	476	2	507	3
19	-1.080	10.57	6.2	478	2	512	3
20	-0.981	10.93	6.1	481	2	517	3
21	-0.884	11.24	6.1	482	2	523	3
22	-0.790	11.51	6.0	484	2	530	4
23	-0.697	11.74	5.9	486	2	539	4
24	-0.605	11.93	5.9	488	2	549	4
25	-0.514	12.08	5.8	490	2	560	4
26	-0.424	12.21	5.8	492	2	560	4
27	-0.334	12.32	5.8	494	2	560	4
28	-0.245	12.41	5.8	495	2	N/A	N/A
29	-0.156	12.48	5.7	497	2	N/A	N/A
30	-0.066	12.53	5.7	499	2	N/A	N/A
31	0.023	12.56	5.7	501	3	N/A	N/A
32	0.113	12.57	5.7	503	3	N/A	N/A
33	0.204	12.55	5.7	505	3	N/A	N/A
34	0.296	12.49	5.7	506	3	N/A	N/A
35	0.389	12.40	5.8	508	3	N/A	N/A
36	0.484	12.27	5.8	510	3	N/A	N/A
37	0.580	12.10	5.8	512	3	N/A	N/A

Table 2.2.16 (continued)
 Raw Score to Scale Score Lookup Table
 Science Grade 8

Raw Score	Theta	Information	SE (Scale Score)	2022		2021	
				Scale Score	Achievement Levels	Scale Score	Achievement Levels
38	0.679	11.90	5.9	514	3	N/A	N/A
39	0.780	11.66	5.9	516	3	N/A	N/A
40	0.885	11.38	6.0	518	3	N/A	N/A
41	0.993	11.06	6.1	521	3	N/A	N/A
42	1.105	10.71	6.2	523	3	N/A	N/A
43	1.223	10.30	6.3	525	3	N/A	N/A
44	1.346	9.84	6.5	528	3	N/A	N/A
45	1.478	9.31	6.6	530	4	N/A	N/A
46	1.619	8.68	6.9	533	4	N/A	N/A
47	1.774	7.93	7.2	536	4	N/A	N/A
48	1.947	7.01	7.7	540	4	N/A	N/A
49	2.146	5.92	8.3	544	4	N/A	N/A
50	2.387	4.67	9.4	549	4	N/A	N/A
51	2.696	3.34	10.0	555	4	N/A	N/A
52	2.937	2.54	10.0	560	4	N/A	N/A
53	2.937	2.54	10.0	560	4	N/A	N/A
54	2.937	2.54	10.0	560	4	N/A	N/A

Section 2.3

Cumulative Scale Score Distribution Tables

Table 2.3.1
Cumulative Scale Score Distribution
English Language Arts Grade 3

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
441	NM	3	0.00005	0.00005
442	NM	9	0.00015	0.00019
443	NM	33	0.00054	0.00073
444	NM	104	0.00169	0.00242
445	NM	196	0.00318	0.00560
446	NM	400	0.00649	0.01208
447	NM	627	0.01017	0.02226
452	NM	819	0.01329	0.03554
457	NM	996	0.01616	0.05170
460	NM	1101	0.01786	0.06956
463	NM	1181	0.01916	0.08871
466	NM	1270	0.02060	0.10931
469	NM	1173	0.01903	0.12834
471	PM	1317	0.02136	0.14970
474	PM	1267	0.02055	0.17026
476	PM	1380	0.02239	0.19264
478	PM	1387	0.02250	0.21514
480	PM	1425	0.02312	0.23826
482	PM	1496	0.02427	0.26252
484	PM	1637	0.02655	0.28908
486	PM	1811	0.02938	0.31845
488	PM	1864	0.03024	0.34869
490	PM	2051	0.03327	0.38196
492	PM	2246	0.03643	0.41839
494	PM	2379	0.03859	0.45698
497	PM	2596	0.04211	0.49909
499	PM	2640	0.04282	0.54192
502	ME	2866	0.04649	0.58841
504	ME	3055	0.04956	0.63796
507	ME	2965	0.04810	0.68606
510	ME	3052	0.04951	0.73556
513	ME	3101	0.05030	0.78586
516	ME	2845	0.04615	0.83201
520	ME	2494	0.04046	0.87247
524	ME	2108	0.03419	0.90666
528	ME	1652	0.02680	0.93346
533	EE	1315	0.02133	0.95479
538	EE	979	0.01588	0.97067
544	EE	713	0.01157	0.98224
551	EE	490	0.00795	0.99019
559	EE	328	0.00532	0.99551
560	EE	277	0.00449	1.00000

Table 2.3.2
Cumulative Scale Score Distribution
English Language Arts Grade 4

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
441	NM	105	0.00169	0.00169
442	NM	934	0.01504	0.01673
449	NM	665	0.01071	0.02744
454	NM	816	0.01314	0.04058
458	NM	1016	0.01636	0.05694
461	NM	1130	0.01820	0.07514
464	NM	1204	0.01939	0.09452
467	NM	1299	0.02092	0.11544
469	NM	1301	0.02095	0.13639
471	PM	1417	0.02282	0.15921
474	PM	1525	0.02456	0.18377
476	PM	1651	0.02659	0.21035
478	PM	1710	0.02754	0.23789
480	PM	1768	0.02847	0.26636
482	PM	1887	0.03039	0.29675
484	PM	2059	0.03316	0.32990
486	PM	2155	0.03470	0.36461
488	PM	2174	0.03501	0.39961
490	PM	2246	0.03617	0.43578
492	PM	2436	0.03923	0.47501
494	PM	2494	0.04016	0.51517
496	PM	2530	0.04074	0.55591
498	PM	2648	0.04264	0.59855
501	ME	2605	0.04195	0.64050
503	ME	2669	0.04298	0.68348
505	ME	2604	0.04193	0.72541
508	ME	2588	0.04167	0.76709
510	ME	2506	0.04035	0.80744
513	ME	2429	0.03911	0.84655
516	ME	2019	0.03251	0.87907
520	ME	1901	0.03061	0.90968
523	ME	1624	0.02615	0.93583
527	ME	1359	0.02188	0.95771
532	EE	991	0.01596	0.97367
537	EE	758	0.01221	0.98588
543	EE	493	0.00794	0.99382
552	EE	278	0.00448	0.99829
560	EE	106	0.00171	1.00000

Table 2.3.3
Cumulative Scale Score Distribution
English Language Arts Grade 5

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
441	NM	2	0.00003	0.00003
442	NM	14	0.00022	0.00025
443	NM	46	0.00072	0.00097
444	NM	108	0.00170	0.00267
445	NM	208	0.00327	0.00594
446	NM	301	0.00473	0.01067
450	NM	490	0.00770	0.01837
454	NM	569	0.00894	0.02732
457	NM	667	0.01048	0.03780
459	NM	699	0.01099	0.04879
461	NM	738	0.01160	0.06039
464	NM	759	0.01193	0.07232
466	NM	784	0.01232	0.08464
467	NM	776	0.01220	0.09684
469	NM	890	0.01399	0.11083
471	PM	946	0.01487	0.12570
472	PM	1069	0.01680	0.14250
474	PM	1043	0.01639	0.15890
476	PM	1121	0.01762	0.17652
477	PM	1225	0.01925	0.19577
479	PM	1330	0.02091	0.21668
481	PM	1437	0.02259	0.23926
482	PM	1480	0.02326	0.26253
484	PM	1703	0.02677	0.28930
486	PM	1821	0.02862	0.31792
487	PM	1887	0.02966	0.34758
489	PM	2065	0.03246	0.38004
491	PM	2215	0.03482	0.41485
493	PM	2451	0.03853	0.45338
495	PM	2523	0.03966	0.49304
497	PM	2636	0.04143	0.53447
499	PM	2828	0.04445	0.57892
501	ME	2947	0.04632	0.62524
504	ME	2992	0.04703	0.67227
506	ME	2960	0.04653	0.71880
508	ME	2780	0.04370	0.76250
511	ME	2463	0.03871	0.80121
514	ME	2219	0.03488	0.83609
516	ME	2090	0.03285	0.86894
520	ME	1914	0.03008	0.89903
523	ME	1653	0.02598	0.92501
527	ME	1536	0.02414	0.94915
531	EE	1306	0.02053	0.96968
536	EE	916	0.01440	0.98408
542	EE	589	0.00926	0.99334
550	EE	294	0.00462	0.99796
560	EE	130	0.00204	1.00000

Table 2.3.4
 Cumulative Scale Score Distribution
 English Language Arts Grade 6

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	4	0.00006	0.00006
441	NM	168	0.00263	0.00269
442	NM	1082	0.01694	0.01963
443	NM	1496	0.02342	0.04304
447	NM	901	0.01410	0.05715
451	NM	993	0.01554	0.07269
454	NM	1007	0.01576	0.08845
457	NM	1069	0.01673	0.10519
460	NM	1113	0.01742	0.12261
462	NM	1114	0.01744	0.14004
465	NM	1230	0.01925	0.15930
467	NM	1303	0.02040	0.17969
469	NM	1330	0.02082	0.20051
472	PM	1366	0.02138	0.22189
474	PM	1483	0.02321	0.24510
476	PM	1525	0.02387	0.26897
479	PM	1545	0.02418	0.29316
481	PM	1617	0.02531	0.31847
483	PM	1741	0.02725	0.34572
485	PM	1803	0.02822	0.37394
488	PM	1898	0.02971	0.40365
490	PM	1948	0.03049	0.43414
492	PM	2021	0.03163	0.46578
494	PM	2170	0.03397	0.49974
497	PM	2270	0.03553	0.53527
499	PM	2294	0.03591	0.57118
501	ME	2345	0.03671	0.60789
504	ME	2405	0.03764	0.64553
506	ME	2455	0.03843	0.68396
509	ME	2391	0.03743	0.72138
512	ME	2275	0.03561	0.75699
514	ME	2396	0.03750	0.79450
517	ME	2233	0.03495	0.82945
520	ME	2042	0.03196	0.86141
524	ME	1862	0.02915	0.89056
527	ME	1693	0.02650	0.91706
531	EE	1470	0.02301	0.94007
535	EE	1185	0.01855	0.95861
540	EE	960	0.01503	0.97364
546	EE	679	0.01063	0.98427
552	EE	494	0.00773	0.99200
560	EE	511	0.00800	1.00000

Table 2.3.5
Cumulative Scale Score Distribution
English Language Arts Grade 7

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	3	0.00005	0.00005
441	NM	42	0.00064	0.00069
442	NM	613	0.00935	0.01003
443	NM	1193	0.01819	0.02822
448	NM	784	0.01195	0.04018
451	NM	894	0.01363	0.05381
455	NM	938	0.01430	0.06811
458	NM	942	0.01436	0.08247
460	NM	1052	0.01604	0.09851
463	NM	1106	0.01686	0.11538
465	NM	1145	0.01746	0.13284
467	NM	1211	0.01846	0.15130
469	NM	1395	0.02127	0.17257
472	PM	1478	0.02254	0.19511
474	PM	1459	0.02225	0.21735
476	PM	1611	0.02456	0.24192
478	PM	1712	0.02610	0.26802
480	PM	1775	0.02706	0.29509
482	PM	1836	0.02799	0.32308
484	PM	1825	0.02783	0.35091
486	PM	2010	0.03065	0.38156
488	PM	1996	0.03043	0.41199
490	PM	2061	0.03143	0.44342
492	PM	2151	0.03280	0.47621
494	PM	2144	0.03269	0.50890
496	PM	2159	0.03292	0.54182
498	PM	2211	0.03371	0.57554
500	ME	2247	0.03426	0.60980
502	ME	2240	0.03415	0.64395
504	ME	2278	0.03473	0.67869
507	ME	2226	0.03394	0.71263
509	ME	2256	0.03440	0.74703
511	ME	2147	0.03274	0.77976
514	ME	2148	0.03275	0.81252
516	ME	2033	0.03100	0.84351
519	ME	1926	0.02937	0.87288
522	ME	1746	0.02662	0.89950
525	ME	1573	0.02398	0.92349
528	ME	1373	0.02093	0.94442
532	EE	1157	0.01764	0.96206
536	EE	959	0.01462	0.97669
542	EE	668	0.01019	0.98687
548	EE	473	0.00721	0.99408
555	EE	263	0.00401	0.99809
560	EE	125	0.00191	1.00000

Table 2.3.6
Cumulative Scale Score Distribution
English Language Arts Grade 8

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	116	0.00171	0.00171
441	NM	2213	0.03258	0.03429
445	NM	621	0.00914	0.04343
448	NM	654	0.00963	0.05306
451	NM	630	0.00928	0.06234
454	NM	713	0.01050	0.07284
456	NM	712	0.01048	0.08332
458	NM	796	0.01172	0.09504
461	NM	850	0.01251	0.10755
463	NM	814	0.01198	0.11954
465	NM	936	0.01378	0.13332
467	NM	1015	0.01494	0.14826
469	NM	1045	0.01539	0.16365
471	PM	1165	0.01715	0.18080
473	PM	1300	0.01914	0.19994
475	PM	1300	0.01914	0.21908
477	PM	1482	0.02182	0.24090
479	PM	1634	0.02406	0.26496
481	PM	1680	0.02474	0.28970
483	PM	1856	0.02733	0.31702
485	PM	1993	0.02934	0.34637
487	PM	2151	0.03167	0.37804
489	PM	2401	0.03535	0.41339
492	PM	2453	0.03612	0.44951
494	PM	2556	0.03763	0.48714
497	PM	2642	0.03890	0.52604
499	PM	2843	0.04186	0.56790
502	ME	2901	0.04271	0.61061
504	ME	3021	0.04448	0.65509
507	ME	2981	0.04389	0.69898
510	ME	3006	0.04426	0.74324
513	ME	2849	0.04195	0.78519
516	ME	2776	0.04087	0.82606
520	ME	2587	0.03809	0.86415
524	ME	2454	0.03613	0.90028
528	ME	2179	0.03208	0.93236
533	EE	1757	0.02587	0.95823
539	EE	1325	0.01951	0.97774
545	EE	856	0.01260	0.99034
553	EE	445	0.00655	0.99689
560	EE	211	0.00311	1.00000

Table 2.3.7
Cumulative Scale Score Distribution
English Language Arts Grade 10

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
441	NM	4	0.00006	0.00006
442	NM	52	0.00080	0.00086
443	NM	187	0.00287	0.00373
444	NM	427	0.00655	0.01028
445	NM	304	0.00466	0.01494
449	NM	290	0.00445	0.01939
452	NM	332	0.00509	0.02448
455	NM	333	0.00511	0.02959
458	NM	351	0.00538	0.03497
461	NM	393	0.00603	0.04100
463	NM	393	0.00603	0.04703
465	NM	401	0.00615	0.05318
467	NM	461	0.00707	0.06025
468	NM	473	0.00726	0.06751
470	PM	506	0.00776	0.07527
472	PM	498	0.00764	0.08291
473	PM	611	0.00937	0.09228
475	PM	645	0.00989	0.10217
477	PM	679	0.01042	0.11259
478	PM	777	0.01192	0.12451
480	PM	835	0.01281	0.13732
481	PM	933	0.01431	0.15163
483	PM	980	0.01503	0.16666
484	PM	1171	0.01796	0.18462
486	PM	1266	0.01942	0.20404
488	PM	1373	0.02106	0.22510
489	PM	1492	0.02289	0.24799
491	PM	1667	0.02557	0.27356
493	PM	1782	0.02733	0.30089
494	PM	2017	0.03094	0.33183
496	PM	2270	0.03482	0.36665
498	PM	2383	0.03655	0.40320
500	ME	2467	0.03784	0.44104
502	ME	2803	0.04300	0.48404
504	ME	2967	0.04551	0.52955
506	ME	3271	0.05017	0.57972
509	ME	3345	0.05131	0.63103
512	ME	3598	0.05519	0.68622
515	ME	3725	0.05714	0.74336
518	ME	3848	0.05902	0.80239
522	ME	3621	0.05554	0.85793
528	ME	3374	0.05175	0.90968
535	EE	2832	0.04344	0.95312
542	EE	1920	0.02945	0.98257
549	EE	906	0.01390	0.99647
559	EE	209	0.00321	0.99968
560	EE	21	0.00032	1.00000

Table 2.3.8
Cumulative Scale Score Distribution
Mathematics Grade 3

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	88	0.00165	0.00165
441	NM	1303	0.02439	0.02603
447	NM	612	0.01145	0.03749
452	NM	708	0.01325	0.05074
456	NM	752	0.01407	0.06481
459	NM	855	0.01600	0.08081
462	NM	879	0.01645	0.09726
465	NM	883	0.01653	0.11379
468	NM	971	0.01817	0.13196
470	PM	984	0.01842	0.15038
473	PM	1069	0.02001	0.17038
475	PM	1106	0.02070	0.19108
477	PM	1155	0.02162	0.21270
479	PM	1168	0.02186	0.23456
481	PM	1166	0.02182	0.25638
483	PM	1244	0.02328	0.27966
485	PM	1346	0.02519	0.30485
486	PM	1342	0.02512	0.32996
488	PM	1361	0.02547	0.35544
490	PM	1391	0.02603	0.38147
492	PM	1470	0.02751	0.40898
494	PM	1491	0.02790	0.43688
495	PM	1525	0.02854	0.46542
497	PM	1528	0.02860	0.49402
499	PM	1568	0.02935	0.52337
501	ME	1615	0.03022	0.55359
503	ME	1644	0.03077	0.58436
505	ME	1706	0.03193	0.61629
506	ME	1700	0.03182	0.64810
509	ME	1761	0.03296	0.68106
511	ME	1681	0.03146	0.71252
513	ME	1747	0.03270	0.74521
515	ME	1722	0.03223	0.77744
518	ME	1697	0.03176	0.80920
520	ME	1679	0.03142	0.84062
523	ME	1652	0.03092	0.87154
526	ME	1486	0.02781	0.89935
529	ME	1336	0.02500	0.92435
534	EE	1185	0.02218	0.94653
539	EE	1050	0.01965	0.96618
545	EE	811	0.01518	0.98136
554	EE	556	0.01041	0.99177
560	EE	440	0.00823	1.00000

Table 2.3.9
Cumulative Scale Score Distribution
Mathematics Grade 4

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	941	0.01756	0.01756
446	NM	383	0.00715	0.02471
451	NM	399	0.00745	0.03216
454	NM	547	0.01021	0.04237
458	NM	558	0.01041	0.05278
461	NM	589	0.01099	0.06378
463	NM	626	0.01168	0.07546
466	NM	672	0.01254	0.08800
468	NM	784	0.01463	0.10264
470	PM	804	0.01501	0.11764
472	PM	827	0.01544	0.13308
474	PM	894	0.01669	0.14977
476	PM	884	0.01650	0.16627
478	PM	977	0.01824	0.18450
480	PM	1042	0.01945	0.20395
481	PM	1042	0.01945	0.22340
483	PM	1103	0.02059	0.24399
485	PM	1085	0.02025	0.26424
486	PM	1173	0.02189	0.28613
488	PM	1244	0.02322	0.30935
489	PM	1202	0.02244	0.33178
491	PM	1262	0.02355	0.35534
492	PM	1294	0.02415	0.37949
493	PM	1288	0.02404	0.40353
495	PM	1305	0.02436	0.42789
496	PM	1272	0.02374	0.45163
498	PM	1417	0.02645	0.47808
499	PM	1360	0.02538	0.50346
501	ME	1409	0.02630	0.52976
502	ME	1407	0.02626	0.55602
504	ME	1387	0.02589	0.58191
505	ME	1457	0.02719	0.60910
507	ME	1484	0.02770	0.63680
508	ME	1445	0.02697	0.66377
510	ME	1508	0.02815	0.69192
512	ME	1521	0.02839	0.72031
513	ME	1536	0.02867	0.74898
515	ME	1516	0.02830	0.77727
517	ME	1458	0.02721	0.80449
519	ME	1434	0.02677	0.83125
522	ME	1402	0.02617	0.85742
524	ME	1371	0.02559	0.88301
527	ME	1294	0.02415	0.90716
529	ME	1264	0.02359	0.93075
533	EE	1083	0.02021	0.95097
537	EE	876	0.01635	0.96732
542	EE	749	0.01398	0.98130
549	EE	530	0.00989	0.99119
560	EE	472	0.00881	1.00000

Table 2.3.10
Cumulative Scale Score Distribution
Mathematics Grade 5

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	196	0.00352	0.00352
441	NM	204	0.00367	0.00719
448	NM	371	0.00667	0.01386
453	NM	522	0.00938	0.02324
458	NM	645	0.01159	0.03483
461	NM	746	0.01341	0.04824
464	NM	811	0.01458	0.06282
467	NM	1006	0.01808	0.08090
469	NM	978	0.01758	0.09848
471	PM	1121	0.02015	0.11863
474	PM	1130	0.02031	0.13894
475	PM	1208	0.02171	0.16065
477	PM	1260	0.02265	0.18330
479	PM	1217	0.02187	0.20518
481	PM	1243	0.02234	0.22752
482	PM	1255	0.02256	0.25008
484	PM	1331	0.02392	0.27400
485	PM	1337	0.02403	0.29803
486	PM	1339	0.02407	0.32210
488	PM	1362	0.02448	0.34658
489	PM	1415	0.02543	0.37201
490	PM	1366	0.02455	0.39657
492	PM	1438	0.02585	0.42241
493	PM	1495	0.02687	0.44929
494	PM	1440	0.02588	0.47517
496	PM	1391	0.02500	0.50017
497	PM	1410	0.02534	0.52551
498	PM	1411	0.02536	0.55088
499	PM	1461	0.02626	0.57714
501	ME	1448	0.02603	0.60316
502	ME	1357	0.02439	0.62755
504	ME	1443	0.02594	0.65349
505	ME	1453	0.02612	0.67961
506	ME	1395	0.02507	0.70468
508	ME	1330	0.02391	0.72859
509	ME	1304	0.02344	0.75203
511	ME	1333	0.02396	0.77599
513	ME	1240	0.02229	0.79827
514	ME	1290	0.02319	0.82146
516	ME	1214	0.02182	0.84328
518	ME	1110	0.01995	0.86323
520	ME	1028	0.01848	0.88171
522	ME	1067	0.01918	0.90089
524	ME	1072	0.01927	0.92016
527	ME	930	0.01672	0.93687
529	ME	865	0.01555	0.95242
533	EE	780	0.01402	0.96644
537	EE	707	0.01271	0.97915
543	EE	546	0.00981	0.98896
552	EE	377	0.00678	0.99574
560	EE	237	0.00426	1.00000

Table 2.3.11
Cumulative Scale Score Distribution
Mathematics Grade 6

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	5	0.00009	0.00009
441	NM	12	0.00021	0.00030
442	NM	196	0.00344	0.00374
443	NM	259	0.00455	0.00829
450	NM	437	0.00767	0.01596
455	NM	620	0.01089	0.02685
459	NM	721	0.01266	0.03952
463	NM	896	0.01574	0.05525
466	NM	992	0.01742	0.07267
469	NM	1115	0.01958	0.09226
471	PM	1111	0.01951	0.11177
474	PM	1277	0.02243	0.13420
476	PM	1324	0.02325	0.15745
478	PM	1334	0.02343	0.18088
480	PM	1430	0.02511	0.20599
481	PM	1506	0.02645	0.23244
483	PM	1492	0.02620	0.25865
485	PM	1468	0.02578	0.28443
487	PM	1481	0.02601	0.31044
488	PM	1470	0.02582	0.33625
490	PM	1519	0.02668	0.36293
491	PM	1499	0.02633	0.38926
493	PM	1569	0.02756	0.41681
494	PM	1526	0.02680	0.44362
496	PM	1519	0.02668	0.47029
497	PM	1484	0.02606	0.49636
499	PM	1506	0.02645	0.52281
500	ME	1513	0.02657	0.54938
501	ME	1472	0.02585	0.57523
503	ME	1397	0.02454	0.59976
504	ME	1344	0.02360	0.62337
506	ME	1427	0.02506	0.64843
507	ME	1348	0.02367	0.67211
508	ME	1301	0.02285	0.69495
510	ME	1255	0.02204	0.71700
511	ME	1268	0.02227	0.73926
512	ME	1219	0.02141	0.76067
514	ME	1212	0.02129	0.78196
515	ME	1146	0.02013	0.80209
517	ME	1151	0.02021	0.82230
518	ME	1103	0.01937	0.84167
520	ME	1019	0.01790	0.85957
522	ME	1012	0.01777	0.87734
524	ME	962	0.01690	0.89424
525	ME	886	0.01556	0.90980
528	ME	919	0.01614	0.92594
529	ME	805	0.01414	0.94008
532	EE	787	0.01382	0.95390
536	EE	701	0.01231	0.96621
539	EE	609	0.01070	0.97691
544	EE	551	0.00968	0.98658
551	EE	429	0.00753	0.99412
560	EE	335	0.00588	1.00000

Table 2.3.12
Cumulative Scale Score Distribution
Mathematics Grade 7

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	4	0.00007	0.00007
441	NM	38	0.00064	0.00071
442	NM	118	0.00199	0.00270
443	NM	312	0.00526	0.00796
444	NM	580	0.00978	0.01774
445	NM	932	0.01571	0.03345
454	NM	1177	0.01984	0.05330
460	NM	1439	0.02426	0.07756
465	NM	1549	0.02612	0.10367
468	NM	1627	0.02743	0.13111
471	PM	1791	0.03020	0.16130
474	PM	1865	0.03144	0.19275
477	PM	1824	0.03075	0.22350
479	PM	1915	0.03229	0.25579
481	PM	2001	0.03374	0.28952
483	PM	2005	0.03380	0.32333
485	PM	1941	0.03273	0.35606
487	PM	1893	0.03192	0.38797
489	PM	1836	0.03096	0.41893
491	PM	1745	0.02942	0.44835
492	PM	1708	0.02880	0.47715
494	PM	1661	0.02800	0.50515
496	PM	1625	0.02740	0.53255
497	PM	1476	0.02489	0.55743
499	PM	1423	0.02399	0.58143
500	ME	1368	0.02306	0.60449
502	ME	1268	0.02138	0.62587
503	ME	1276	0.02151	0.64738
505	ME	1168	0.01969	0.66708
506	ME	1133	0.01910	0.68618
508	ME	1140	0.01922	0.70540
509	ME	1100	0.01855	0.72395
510	ME	1016	0.01713	0.74108
512	ME	993	0.01674	0.75782
513	ME	994	0.01676	0.77458
514	ME	882	0.01487	0.78945
516	ME	907	0.01529	0.80474
517	ME	896	0.01511	0.81985
518	ME	802	0.01352	0.83337
520	ME	819	0.01381	0.84718
521	ME	810	0.01366	0.86084
523	ME	771	0.01300	0.87383
524	ME	775	0.01307	0.88690
526	ME	760	0.01281	0.89972
527	ME	734	0.01238	0.91209
529	ME	752	0.01268	0.92477
531	EE	695	0.01172	0.93649
533	EE	684	0.01153	0.94802
535	EE	627	0.01057	0.95859
538	EE	548	0.00924	0.96783
541	EE	593	0.01000	0.97783
545	EE	511	0.00862	0.98644
551	EE	390	0.00658	0.99302
560	EE	414	0.00698	1.00000

Table 2.3.13
Cumulative Scale Score Distribution
Mathematics Grade 8

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
441	NM	12	0.00019	0.00019
443	NM	36	0.00058	0.00077
444	NM	112	0.00180	0.00257
446	NM	253	0.00406	0.00663
447	NM	431	0.00692	0.01354
448	NM	651	0.01045	0.02399
454	NM	957	0.01536	0.03935
459	NM	1100	0.01765	0.05700
462	NM	1214	0.01948	0.07649
466	NM	1364	0.02189	0.09838
468	NM	1345	0.02159	0.11996
471	PM	1436	0.02305	0.14301
473	PM	1407	0.02258	0.16559
475	PM	1476	0.02369	0.18928
477	PM	1425	0.02287	0.21215
479	PM	1521	0.02441	0.23656
480	PM	1506	0.02417	0.26072
482	PM	1458	0.02340	0.28412
483	PM	1513	0.02428	0.30840
485	PM	1537	0.02467	0.33307
486	PM	1610	0.02584	0.35891
488	PM	1533	0.02460	0.38351
489	PM	1569	0.02518	0.40869
491	PM	1480	0.02375	0.43244
492	PM	1507	0.02419	0.45663
493	PM	1492	0.02394	0.48057
494	PM	1508	0.02420	0.50477
496	PM	1419	0.02277	0.52755
497	PM	1490	0.02391	0.55146
498	PM	1434	0.02301	0.57447
499	PM	1434	0.02301	0.59749
501	ME	1300	0.02086	0.61835
502	ME	1346	0.02160	0.63995
504	ME	1336	0.02144	0.66139
505	ME	1246	0.02000	0.68139
506	ME	1318	0.02115	0.70254
508	ME	1256	0.02016	0.72270
509	ME	1171	0.01879	0.74149
511	ME	1165	0.01870	0.76019
512	ME	1227	0.01969	0.77988

Table 2.3.13 (continued)
 Cumulative Scale Score Distribution
 Mathematics Grade 8

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
514	ME	1144	0.01836	0.79824
516	ME	1153	0.01850	0.81674
517	ME	1149	0.01844	0.83518
519	ME	1112	0.01785	0.85303
521	ME	1131	0.01815	0.87118
523	ME	1042	0.01672	0.88790
525	ME	1058	0.01698	0.90488
528	ME	1037	0.01664	0.92152
530	EE	1001	0.01606	0.93759
534	EE	1012	0.01624	0.95383
538	EE	884	0.01419	0.96802
543	EE	851	0.01366	0.98167
553	EE	724	0.01162	0.99329
560	EE	418	0.00671	1.00000

Table 2.3.14
 Cumulative Scale Score Distribution
 Mathematics Grade 10

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	1	0.00002	0.00002
441	NM	5	0.00008	0.00010
442	NM	19	0.00031	0.00041
443	NM	57	0.00093	0.00134
444	NM	145	0.00237	0.00370
445	NM	267	0.00436	0.00806
454	NM	448	0.00731	0.01537
459	NM	626	0.01021	0.02558
463	NM	755	0.01232	0.03790
467	NM	952	0.01553	0.05343
469	NM	1043	0.01702	0.07045
472	PM	1119	0.01826	0.08870
474	PM	1177	0.01920	0.10790
476	PM	1236	0.02016	0.12807
478	PM	1251	0.02041	0.14848
480	PM	1194	0.01948	0.16796
482	PM	1335	0.02178	0.18974
483	PM	1236	0.02016	0.20990
485	PM	1265	0.02064	0.23054
486	PM	1256	0.02049	0.25103
488	PM	1330	0.02170	0.27273
489	PM	1339	0.02184	0.29457
491	PM	1330	0.02170	0.31627
492	PM	1269	0.02070	0.33697
493	PM	1357	0.02214	0.35911
495	PM	1269	0.02070	0.37981
496	PM	1269	0.02070	0.40052
497	PM	1302	0.02124	0.42176
498	PM	1263	0.02060	0.44236
499	PM	1274	0.02078	0.46315
501	ME	1261	0.02057	0.48372
502	ME	1215	0.01982	0.50354
503	ME	1237	0.02018	0.52372
504	ME	1237	0.02018	0.54390
505	ME	1200	0.01958	0.56348
507	ME	1182	0.01928	0.58276
508	ME	1181	0.01927	0.60203
509	ME	1197	0.01953	0.62156
510	ME	1198	0.01954	0.64110
511	ME	1174	0.01915	0.66026

Table 2.3.14 (continued)
 Cumulative Scale Score Distribution
 Mathematics Grade 10

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
512	ME	1230	0.02007	0.68032
514	ME	1153	0.01881	0.69913
515	ME	1125	0.01835	0.71749
516	ME	1129	0.01842	0.73590
518	ME	1106	0.01804	0.75395
519	ME	1082	0.01765	0.77160
520	ME	1069	0.01744	0.78904
522	ME	1123	0.01832	0.80736
523	ME	1104	0.01801	0.82537
525	ME	1048	0.01710	0.84247
527	ME	1083	0.01767	0.86014
529	ME	999	0.01630	0.87644
531	EE	962	0.01569	0.89213
533	EE	1011	0.01649	0.90862
536	EE	1030	0.01680	0.92543
539	EE	1023	0.01669	0.94212
543	EE	952	0.01553	0.95765
548	EE	814	0.01328	0.97093
555	EE	811	0.01323	0.98416
560	EE	971	0.01584	1.00000

Table 2.3.15
Cumulative Scale Score Distribution
Science Grade 5

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	2	0.00004	0.00004
441	NM	13	0.00023	0.00026
442	NM	156	0.00274	0.00301
443	NM	395	0.00695	0.00996
444	NM	703	0.01237	0.02232
448	NM	365	0.00642	0.02874
449	NM	136	0.00239	0.03114
451	NM	409	0.00719	0.03833
453	NM	189	0.00332	0.04166
455	NM	498	0.00876	0.05042
457	NM	195	0.00343	0.05385
458	NM	523	0.00920	0.06305
460	NM	621	0.01092	0.07397
461	NM	187	0.00329	0.07726
463	NM	673	0.01184	0.08910
464	NM	186	0.00327	0.09237
466	NM	720	0.01267	0.10504
467	NM	188	0.00331	0.10835
468	NM	778	0.01369	0.12203
470	PM	996	0.01752	0.13955
473	PM	1096	0.01928	0.15883
475	PM	959	0.01687	0.17570
476	PM	199	0.00350	0.17920
477	PM	1057	0.01859	0.19780
479	PM	1325	0.02331	0.22111
481	PM	1192	0.02097	0.24208
482	PM	221	0.00389	0.24596
483	PM	1194	0.02100	0.26697
485	PM	1491	0.02623	0.29320
487	PM	1619	0.02848	0.32168
489	PM	1562	0.02748	0.34915
490	PM	252	0.00443	0.35359
492	PM	1616	0.02843	0.38201
493	PM	231	0.00406	0.38608
494	PM	1614	0.02839	0.41447
496	PM	1966	0.03458	0.44906
498	PM	2061	0.03626	0.48531
499	PM	1747	0.03073	0.51604
501	ME	244	0.00429	0.52034
502	ME	1955	0.03439	0.55473

Table 2.3.15 (continued)
 Cumulative Scale Score Distribution
 Science Grade 5

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
504	ME	2155	0.03791	0.59264
507	ME	2181	0.03837	0.63100
509	ME	2053	0.03612	0.66712
510	ME	241	0.00424	0.67136
511	ME	2050	0.03606	0.70742
514	ME	2312	0.04067	0.74809
516	ME	1924	0.03385	0.78194
517	ME	211	0.00371	0.78565
519	ME	1934	0.03402	0.81967
521	ME	227	0.00399	0.82366
522	ME	1836	0.03230	0.85596
525	ME	1825	0.03210	0.88807
528	ME	1432	0.02519	0.91326
529	ME	180	0.00317	0.91642
532	EE	1188	0.02090	0.93732
535	EE	143	0.00252	0.93984
536	EE	1063	0.01870	0.95854
540	EE	804	0.01414	0.97268
541	EE	105	0.00185	0.97453
545	EE	551	0.00969	0.98422
549	EE	79	0.00139	0.98561
551	EE	376	0.00661	0.99222
558	EE	225	0.00396	0.99618
559	EE	33	0.00058	0.99676
560	EE	184	0.00324	1.00000

Table 2.3.16
Cumulative Scale Score Distribution
Science Grade 8

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
440	NM	13	0.00021	0.00021
441	NM	360	0.00572	0.00593
442	NM	43	0.00068	0.00661
443	NM	117	0.00186	0.00847
444	NM	427	0.00679	0.01526
445	NM	372	0.00591	0.02117
446	NM	466	0.00741	0.02857
449	NM	147	0.00234	0.03091
451	NM	592	0.00941	0.04032
454	NM	164	0.00261	0.04292
455	NM	667	0.01060	0.05352
458	NM	656	0.01042	0.06395
459	NM	207	0.00329	0.06724
462	NM	820	0.01303	0.08027
463	NM	187	0.00297	0.08324
464	NM	823	0.01308	0.09632
467	NM	1155	0.01835	0.11467
469	NM	1010	0.01605	0.13072
470	PM	218	0.00346	0.13419
472	PM	1114	0.01770	0.15189
473	PM	223	0.00354	0.15544
474	PM	1191	0.01893	0.17436
476	PM	1446	0.02298	0.19734
478	PM	1272	0.02021	0.21756
479	PM	208	0.00331	0.22086
481	PM	1623	0.02579	0.24665
482	PM	1436	0.02282	0.26948
484	PM	1784	0.02835	0.29783
486	PM	1815	0.02884	0.32667
488	PM	1584	0.02517	0.35184
489	PM	262	0.00416	0.35601
490	PM	1693	0.02690	0.38291
491	PM	222	0.00353	0.38644
492	PM	1726	0.02743	0.41387
493	PM	241	0.00383	0.41770
494	PM	1832	0.02911	0.44681
495	PM	1918	0.03048	0.47729
496	PM	219	0.00348	0.48077
497	PM	1854	0.02946	0.51023
498	PM	250	0.00397	0.51421

Table 2.3.16 (continued)
 Cumulative Scale Score Distribution
 Science Grade 8

Scale Score	Achievement Levels	N	Proportion	Cumulative Proportion
499	PM	1810	0.02876	0.54297
501	ME	2065	0.03282	0.57579
503	ME	2139	0.03399	0.60978
505	ME	2112	0.03356	0.64334
506	ME	1886	0.02997	0.67331
508	ME	2069	0.03288	0.70619
510	ME	2015	0.03202	0.73822
512	ME	1751	0.02783	0.76604
513	ME	202	0.00321	0.76925
514	ME	1670	0.02654	0.79579
515	ME	151	0.00240	0.79819
516	ME	1615	0.02567	0.82386
518	ME	1719	0.02732	0.85117
521	ME	1593	0.02532	0.87649
523	ME	1319	0.02096	0.89745
524	ME	119	0.00189	0.89934
525	ME	1182	0.01878	0.91813
528	ME	1174	0.01866	0.93678
530	EE	906	0.01440	0.95118
531	EE	97	0.00154	0.95272
533	EE	773	0.01228	0.96501
535	EE	81	0.00129	0.96629
536	EE	631	0.01003	0.97632
540	EE	558	0.00887	0.98519
544	EE	381	0.00605	0.99124
546	EE	37	0.00059	0.99183
549	EE	234	0.00372	0.99555
555	EE	155	0.00246	0.99801
560	EE	125	0.00199	1.00000

Section 2.4

Rescore Analysis Results

Table 2.4.1
Rescore Analysis
English Language Arts Grade 3

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00458A	3	0.57500	0.47500	0.72595	0.64922	-0.13775	False
IA00458D	5	0.52500	0.53500	0.76963	0.72899	0.01299	False

Table 2.4.2
Rescore Analysis
English Language Arts Grade 4

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00421A	3	1.13000	1.19000	0.99400	0.83510	0.06036	False
IA00421D	5	1.05000	0.98000	1.07857	1.07488	-0.06490	False

Table 2.4.3
Rescore Analysis
English Language Arts Grade 5

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00509A	3	1.03000	0.99000	0.85013	0.78931	-0.04705	False
IA00509D	5	1.09000	0.99500	0.85178	0.78617	-0.11153	False
IA01676A	3	1.60000	1.59000	0.99243	0.91985	-0.01008	False
IA01676D	5	1.49500	1.42000	1.38911	1.29304	-0.05399	False

Table 2.4.4
Rescore Analysis
English Language Arts Grade 6

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00181A	3	1.25000	1.27000	1.01620	0.94422	0.01968	False
IA00181D	5	1.45500	1.54500	1.03116	0.99646	0.08728	False
IA00531A	3	1.37500	1.26000	1.08641	0.99869	-0.10585	False
IA00531D	5	1.53000	1.46000	1.14703	1.05068	-0.06103	False

Table 2.4.5
Rescore Analysis
English Language Arts Grade 7

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00071A	3	1.24500	1.22000	0.97968	0.82766	-0.02552	False
IA00071D	5	1.43500	1.35500	1.01039	0.78872	-0.07918	False
IA00665A	3	1.43500	1.42500	1.03009	0.98958	-0.00971	False
IA00665D	5	1.58500	1.60000	1.24923	1.06096	0.01201	False

Table 2.4.6
Rescore Analysis
English Language Arts Grade 8

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00064A	3	1.53500	1.73500	1.05086	1.04414	0.19032	False
IA00064D	5	1.69000	1.86500	1.17934	1.04028	0.14839	False
IA00376A	3	1.56500	1.69500	1.02520	0.94681	0.12680	False
IA00376D	5	1.78500	1.76500	1.08844	0.94032	-0.01837	False

Table 2.4.7
Rescore Analysis
Mathematics Grade 3

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA01080	3	1.19500	1.13500	0.98582	0.98571	-0.06086	False
IA01081	3	1.14500	1.13000	0.92099	0.91503	-0.01629	False

Table 2.4.8
Rescore Analysis
Mathematics Grade 4

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00789	4	1.33500	1.57000	1.18312	1.33567	0.19863	False
IA01057	4	1.94000	2.00000	1.16326	1.20718	0.05158	False

Table 2.4.9
Rescore Analysis
Mathematics Grade 5

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA01032	4	1.49000	1.51000	1.22368	1.25209	0.01634	False
IA02736	4	1.87000	1.78000	1.41176	1.40050	-0.06375	False

Table 2.4.10
Rescore Analysis
Mathematics Grade 6

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00881	4	2.19500	2.15000	1.59679	1.60009	-0.02818	False
IA00972	4	2.88000	2.85000	1.00531	1.02604	-0.02984	False

Table 2.4.11
Rescore Analysis
Mathematics Grade 7

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA01069	4	2.04000	2.05000	1.09287	1.12866	0.00915	False
IA02722	4	1.75500	1.81000	1.54171	1.55434	0.03567	False

Table 2.4.12
Rescore Analysis
Mathematics Grade 8

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
IA00864	4	2.85500	2.82500	1.41917	1.46804	-0.02114	False
IA01066	4	2.11000	2.05500	1.60336	1.63872	-0.03430	False

Section 2.5

Tabled Delta Analysis Results

Table 2.5.1
Delta Analysis
English Language Arts Grade 3

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00279 (EL308822)	0.83000	0.78000	9.18334	9.91123	1	False	-0.68367
IA00280 (EL308824)	0.73000	0.66000	10.54875	11.35015	1	False	-0.56424
IA00281 (EL308826)	0.63000	0.59000	11.67259	12.08982	1	False	-0.29825
IA00282 (EL308827)	0.71000	0.65000	10.78646	11.45872	1	False	-1.01877
IA00283 (EL308835)	0.63000	0.57000	11.67259	12.29450	1	False	-0.98369
IA00284 (EL308837)	0.74000	0.66000	10.42662	11.35015	1	False	-0.14392
IA00285 (EL308838)	0.84000	0.77000	9.02217	10.04461	1	False	0.31769
IA00286 (EL308842)	0.47000	0.41000	13.30108	13.91018	1	False	-0.78960
IA00287 (EL308855)	0.50333	0.37333	12.96658	14.29215	3	False	0.96665
IA00288 (EL308857)	0.41667	0.32000	13.84171	14.87080	3	False	-0.10746
IA00443 (EL626042844)	0.65000	0.66000	11.45872	11.35015	1	False	1.44268
IA00444 (EL626043062)	0.73000	0.67000	10.54875	11.24035	1	False	-0.93193
IA00445 (EL626043435)	0.62500	0.51500	11.72544	12.84957	2	False	0.40726
IA00446 (EL626049849)	0.66000	0.53000	11.35015	12.69892	1	False	1.19438
IA00450 (EL626050679)	0.72000	0.67000	10.66863	11.24035	1	False	-0.90876
IA00451 (EL626050927)	0.47000	0.51000	13.30108	12.89972	1	False	2.59416
IA00452 (EL626051097)	0.57000	0.55000	12.29450	12.49735	2	False	0.47739
IA00453 (EL626051328)	0.65000	0.64000	11.45872	11.56616	1	False	0.71929
IA00458A (EL626052459#SCORE_TRAIT_Conv)	0.24333	0.18667	15.78248	16.56099	3	False	-1.12656
IA00458D (EL626052459#SCORE_TRAIT_Ideadev)	0.19750	0.13750	16.40234	17.36648	4	False	-0.56262

Table 2.5.2
Delta Analysis
English Language Arts Grade 4

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00218 (EL307705)	0.86000	0.81000	8.67872	9.48841	1	False	-1.31264
IA00219 (EL307709)	0.81000	0.77000	9.48841	10.04461	1	False	-0.31752
IA00220 (EL307710)	0.46000	0.43000	13.40173	13.70550	1	False	0.43555
IA00221 (EL307713)	0.58000	0.52000	12.19243	12.79939	1	False	-0.73624
IA00222 (EL307714)	0.82000	0.76000	9.33854	10.17479	1	False	-1.47391
IA00223 (EL307719)	0.60000	0.56000	11.98661	12.39612	1	False	0.10291
IA00224 (EL307724)	0.78000	0.75000	9.91123	10.30204	1	False	0.33978
IA00225 (EL307728)	0.56000	0.45333	12.39612	13.46898	3	False	-0.28176
IA00226 (EL307729)	0.53000	0.41667	12.69892	13.84171	3	False	0.03309
IA00289 (EL309792)	0.67000	0.64000	11.24035	11.56616	1	False	0.50906
IA00407 (EL624647403)	0.48000	0.41000	13.20061	13.91018	1	False	-1.24131
IA00408 (EL624647580)	0.61000	0.58000	11.88272	12.19243	1	False	0.52708
IA00411 (EL624652450)	0.87000	0.78000	8.49444	9.91123	1	False	0.85379
IA00412 (EL624652621)	0.94000	0.90000	6.78091	7.87379	1	False	-0.62814
IA00414 (EL624652989)	0.43000	0.43000	13.70550	13.70550	1	False	1.67903
IA00415 (EL624653348)	0.76000	0.67000	10.17479	11.24035	1	False	-0.48226
IA00416 (EL624653492)	0.79000	0.72000	9.77432	10.66863	2	False	-1.22701
IA00419 (EL624654711)	0.87000	0.80000	8.49444	9.63352	2	False	-0.30432
IA00421A (EL624655949#SCORE_TRAIT_Conv)	0.52000	0.36667	12.79939	14.36278	3	False	1.79475
IA00421D (EL624655949#SCORE_TRAIT_Ideadev)	0.38750	0.25250	14.14336	15.66657	4	False	1.73008

Table 2.5.3
Delta Analysis
English Language Arts Grade 5

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00495 (EL626304658)	0.79000	0.75000	9.77432	10.30204	1	False	-1.10693
IA00497 (EL626304969)	0.79000	0.73000	9.77432	10.54875	1	False	-0.48551
IA00500 (EL626332335)	0.70000	0.66000	10.90240	11.35015	1	False	-0.87347
IA00501 (EL626332592)	0.88000	0.84000	8.30005	9.02217	1	False	-0.69248
IA00502 (EL626333002)	0.87000	0.82000	8.49444	9.33854	1	False	-0.28943
IA00505 (EL626355215)	0.57000	0.60000	12.29450	11.98661	1	False	1.55953
IA00506 (EL626355557)	0.60000	0.64000	11.98661	11.56616	1	False	1.93456
IA00508 (EL626356291)	0.42500	0.36500	13.75647	14.38050	2	False	-0.87892
IA00509A (EL626356806#SCORE_TRAIT_Conv)	0.46000	0.40000	13.40173	14.01339	3	False	-0.92802
IA00509D (EL626356806#SCORE_TRAIT_Ideadev)	0.36250	0.31500	14.40714	14.92691	4	False	-1.19457
IA00638 (EL627351056)	0.63000	0.66000	11.67259	11.35015	1	False	1.62228
IA01669 (EL711809263)	0.82000	0.76000	9.33854	10.17479	1	False	-0.29437
IA01670 (EL711809592)	0.81000	0.76000	9.48841	10.17479	1	False	-0.78003
IA01671 (EL711827203)	0.94000	0.90000	6.78091	7.87379	1	False	0.48082
IA01672 (EL711827807)	0.74000	0.73000	10.42662	10.54875	1	False	0.20133
IA01676A (EL711854812#SCORE_TRAIT_Conv)	0.52000	0.39000	12.79939	14.11728	3	False	1.36304
IA01676D (EL711854812#SCORE_TRAIT_Ideadev)	0.36500	0.26500	14.38050	15.51202	4	False	0.79334
IA01679 (EL711868011)	0.60000	0.49500	11.98661	13.05013	2	False	0.51261
IA01680 (EL711900602)	0.72000	0.70000	10.66863	10.90240	1	False	-0.16908
IA01691 (EL712167015)	0.50000	0.46000	13.00000	13.40173	1	False	-0.77468

Table 2.5.4
Delta Analysis
English Language Arts Grade 6

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00173 (EL303496)	0.86000	0.74000	8.67872	10.42662	1	False	0.47764
IA00174 (EL303500)	0.69000	0.64000	11.01660	11.56616	1	False	0.42822
IA00175 (EL303504)	0.70000	0.61000	10.90240	11.88272	1	False	-1.62367
IA00176 (EL303508)	0.78000	0.71000	9.91123	10.78646	1	False	-0.52864
IA00177 (EL303510)	0.92000	0.87000	7.37971	8.49444	1	False	-0.22976
IA00178 (EL303513)	0.78000	0.66000	9.91123	11.35015	1	False	-0.32297
IA00179 (EL303514)	0.64000	0.63000	11.56616	11.67259	1	False	2.28706
IA00180 (EL303518)	0.62000	0.57000	11.77808	12.29450	1	False	0.14701
IA00181A (EL303519#SCORE_TRAIT_Conv)	0.54333	0.43667	12.56466	13.63770	3	False	-0.57456
IA00181D (EL303519#SCORE_TRAIT_Ideadev)	0.35600	0.33000	14.47669	14.75965	5	False	-0.27900
IA00515 (EL626864414)	0.90000	0.83000	7.87379	9.18334	1	False	-1.47613
IA00517 (EL626864724)	0.82000	0.69000	9.33854	11.01660	1	False	0.51906
IA00518 (EL626865003)	0.74000	0.67000	10.42662	11.24035	1	False	-0.52680
IA00520 (EL626865416)	0.55000	0.41000	12.49735	13.91018	1	False	1.05725
IA00522 (EL626865773)	0.83000	0.72000	9.18334	10.66863	1	False	-0.51950
IA00523 (EL626865942)	0.67000	0.64000	11.24035	11.56616	1	False	1.39811
IA00528 (EL626867605)	0.88500	0.77000	8.19856	10.04461	2	False	0.68027
IA00530 (EL626868748)	0.79000	0.70500	9.77432	10.84466	2	False	-1.40833
IA00531A (EL626869132#SCORE_TRAIT_Conv)	0.61667	0.47000	11.81305	13.30108	3	False	1.02795
IA00531D (EL626869132#SCORE_TRAIT_Ideadev)	0.41800	0.33000	13.82805	14.75965	5	False	-0.53320

Table 2.5.5
Delta Analysis
English Language Arts Grade 7

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00065 (EL292160)	0.83000	0.73000	9.18334	10.54875	1	False	0.74245
IA00066 (EL292163)	0.74000	0.65000	10.42662	11.45872	1	False	-0.59540
IA00067 (EL292168)	0.59000	0.50000	12.08982	13.00000	1	False	-0.79165
IA00068 (EL292170)	0.80000	0.71000	9.63352	10.78646	1	False	-0.19338
IA00069 (EL292172)	0.67000	0.62000	11.24035	11.77808	1	False	-0.06810
IA00070 (EL292176)	0.62000	0.62000	11.77808	11.77808	1	False	2.44635
IA00071A (EL292181#SCORE_TRAIT_Conv)	0.54667	0.48333	12.53102	13.16716	3	False	-0.86518
IA00071D (EL292181#SCORE_TRAIT_Ideadev)	0.35400	0.32600	14.49817	14.80394	5	False	0.28260
IA00081 (EL293802)	0.75000	0.68000	10.30204	11.12920	1	False	-1.26412
IA00082 (EL293804)	0.64000	0.54000	11.56616	12.59827	1	False	-0.31899
IA00257 (EL308358)	0.90000	0.85000	7.87379	8.85427	1	False	-1.42919
IA00258 (EL308360)	0.80500	0.75500	9.56153	10.23876	2	False	-0.34706
IA00262 (EL308382)	0.75000	0.65000	10.30204	11.45872	1	False	-0.01287
IA00265 (EL308389)	0.92000	0.90000	7.37971	7.87379	1	False	1.08304
IA00269 (EL308397)	0.90000	0.84000	7.87379	9.02217	1	False	-0.64271
IA00655 (EL628647210)	0.78000	0.72000	9.91123	10.66863	1	False	-0.82622
IA00657 (EL628647689)	0.86000	0.77000	8.67872	10.04461	1	False	0.62241
IA00658 (EL628653398)	0.77000	0.74000	10.04461	10.42662	2	False	0.98788
IA00665A (EL628749729#SCORE_TRAIT_Conv)	0.66667	0.52667	11.27709	12.73243	3	False	1.69263
IA00665D (EL628749729#SCORE_TRAIT_Ideadev)	0.44000	0.35400	13.60388	14.49817	5	False	-0.50251

Table 2.5.6
Delta Analysis
English Language Arts Grade 8

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00056 (EL290795)	0.84000	0.77000	9.02217	10.04461	1	False	-0.23221
IA00057 (EL290798)	0.80000	0.78000	9.63352	9.91123	1	False	0.52755
IA00058 (EL290799)	0.80000	0.75000	9.63352	10.30204	1	False	-1.34346
IA00059 (EL290800)	0.70000	0.67000	10.90240	11.24035	1	False	0.01219
IA00060 (EL290801)	0.84000	0.77000	9.02217	10.04461	1	False	-0.23221
IA00061 (EL290805)	0.65000	0.56000	11.45872	12.39612	1	False	-0.20349
IA00062 (EL290808)	0.57000	0.54000	12.29450	12.59827	1	False	-0.07316
IA00063 (EL290814)	0.49000	0.44000	13.10028	13.60388	1	False	-1.17402
IA00064A (EL290818#SCORE_TRAIT_Conv)	0.68333	0.56667	11.09184	12.32842	3	False	1.16320
IA00064D (EL290818#SCORE_TRAIT_Ideadev)	0.43800	0.36600	13.62417	14.36987	5	False	-0.73393
IA00368 (EL623873883)	0.81000	0.72000	9.48841	10.66863	1	False	0.60654
IA00371 (EL623951471)	0.63000	0.60500	11.67259	11.93476	2	False	0.23720
IA00373 (EL623952377)	0.46500	0.42000	13.35138	13.80757	2	False	-0.99198
IA00374 (EL623952612)	0.72000	0.73000	10.66863	10.54875	1	False	2.24587
IA00376A (EL623953378#SCORE_TRAIT_Conv)	0.74667	0.63000	10.34385	11.67259	3	False	1.47057
IA00376D (EL623953378#SCORE_TRAIT_Ideadev)	0.49200	0.40200	13.08022	13.99269	5	False	-0.03278
IA00378 (EL623955555)	0.60000	0.51000	11.98661	12.89972	1	False	-0.22536
IA00379 (EL623955757)	0.54000	0.54000	12.59827	12.59827	1	False	1.32676
IA00383 (EL623959265)	0.71000	0.65000	10.78646	11.45872	1	False	-1.56756
IA00699 (EL632808123)	0.81000	0.77000	9.48841	10.04461	1	False	-0.77974

Table 2.5.7
Delta Analysis
English Language Arts Grade 10

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA04110 (EL807953958)	0.67000	0.54000	11.24035	12.59827	2	False	2.99218
IA04111 (EL807957225)	0.79000	0.79000	9.77432	9.77432	1	False	0.05772
IA04132 (EL808046697)	0.90000	0.88000	7.87379	8.30005	1	False	-0.75346
IA04260 (EL811034362)	0.79000	0.73000	9.77432	10.54875	1	False	0.76744
IA04297 (EL811428116)	0.64000	0.61000	11.56616	11.88272	1	False	-0.42370
IA04412 (EL813438114)	0.80000	0.74000	9.63352	10.42662	1	False	0.80324
IA04439 (EL816956706)	0.68000	0.67000	11.12920	11.24035	1	False	-0.56883
IA04440 (EL817235657)	0.64000	0.63500	11.56616	11.61950	2	False	-0.45817
IA06626A (EL811561885#SCORE_TRAIT_Conv)	0.71333	0.74667	10.74740	10.34385	3	False	1.22181
IA06626D (EL811561885#SCORE_TRAIT_Ideadev)	0.46600	0.50000	13.34132	13.00000	5	False	0.52499
IA06629 (EL811608986)	0.76500	0.75000	10.11008	10.30204	2	False	-0.64656
IA06631 (EL811610832)	0.60000	0.59000	11.98661	12.08982	2	False	-0.70397
IA06633 (EL811612272)	0.62000	0.60000	11.77808	11.98661	1	False	-0.74446
IA06635 (EL811612951)	0.82000	0.80000	9.33854	9.63352	1	False	-0.84511
IA06636 (EL811614524)	0.84000	0.82000	9.02217	9.33854	1	False	-0.85691
IA06638 (EL811616340)	0.60000	0.62000	11.98661	11.77808	1	False	0.33700
IA06641 (EL811617473)	0.80000	0.78000	9.63352	9.91123	1	False	-0.84307
IA06642 (EL811618006)	0.82000	0.82000	9.33854	9.33854	1	False	0.13987

Table 2.5.8
Delta Analysis
Mathematics Grade 3

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00769 (MA203641)	0.90000	0.83000	7.87379	9.18334	1	False	0.24128
IA00799 (MA260559)	0.65000	0.49000	11.45872	13.10028	1	False	2.22356
IA00834 (MA293457)	0.85000	0.79000	8.85427	9.77432	1	False	-0.87612
IA00838 (MA293524)	0.81000	0.74000	9.48841	10.42662	1	False	-0.66566
IA00850 (MA297405)	0.77000	0.69000	10.04461	11.01660	1	False	-0.41937
IA00852 (MA297438)	0.70000	0.63000	10.90240	11.67259	1	False	-0.91681
IA00924 (MA306310)	0.55000	0.46000	12.49735	13.40173	1	False	-0.08160
IA00925 (MA306315)	0.82000	0.75000	9.33854	10.30204	1	False	-0.61317
IA00930 (MA306359)	0.62000	0.66000	11.77808	11.35015	1	False	2.36721
IA00932 (MA306375)	0.48000	0.48000	13.20061	13.20061	1	False	0.55725
IA00993 (MA310834)	0.66000	0.63000	11.35015	11.67259	1	False	-0.12579
IA01019 (MA311277)	0.78000	0.74000	9.91123	10.42662	1	False	-0.45729
IA01071 (MA623063509)	0.72000	0.73000	10.66863	10.54875	1	False	1.56130
IA01080 (MA623654449)	0.36000	0.31667	14.43384	14.90816	3	False	-1.11643
IA01081 (MA623656013)	0.36000	0.28667	14.43384	15.25260	3	False	0.07367
IA02323 (MA301611A)	0.88000	0.83000	8.30005	9.18334	1	False	-1.13224
IA04760 (MA713752330)	0.85000	0.77000	8.85427	10.04461	1	False	0.05782
IA04813 (MA735572247)	0.75000	0.72000	10.30204	10.66863	1	False	-0.03420
IA04828 (MA735653938)	0.59000	0.51000	12.08982	12.89972	1	False	-0.50297
IA04844 (MA735735757)	0.65000	0.62000	11.45872	11.77808	1	False	-0.14044

Table 2.5.9
Delta Analysis
Mathematics Grade 4

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00789 (MA250543)	0.48000	0.41500	13.20061	13.85881	4	False	-0.60787
IA00828 (MA287237)	0.78000	0.76000	9.91123	10.17479	1	False	-0.75079
IA00841 (MA293718)	0.78000	0.71000	9.91123	10.78646	1	False	0.03016
IA00861 (MA297629)	0.87000	0.89000	8.49444	8.09389	1	False	0.39855
IA00869 (MA297988)	0.24000	0.18000	15.82521	16.66146	1	False	-0.45669
IA00906 (MA301811)	0.76000	0.73000	10.17479	10.54875	1	False	-0.93059
IA00958 (MA307055)	0.57000	0.46000	12.29450	13.40173	1	False	0.29962
IA00961 (MA307081)	0.54000	0.53000	12.59827	12.69892	1	False	-0.25665
IA00963 (MA307085)	0.76000	0.67000	10.17479	11.24035	1	False	0.36951
IA01048 (MA311534)	0.56000	0.54000	12.39612	12.59827	1	False	-0.46156
IA01049 (MA311537)	0.70000	0.66000	10.90240	11.35015	1	False	-0.84275
IA01055 (MA311572)	0.64000	0.52000	11.56616	12.79939	1	False	0.58739
IA01057 (MA311581)	0.55500	0.55250	12.44678	12.47208	4	False	-0.12558
IA01093 (MA623879088)	0.70500	0.73000	10.84466	10.54875	2	False	0.36620
IA02175 (MA286769)	0.78000	0.75000	9.91123	10.30204	1	False	-0.88047
IA02819 (MA713583365)	0.42000	0.61000	13.80757	11.88272	1	False	3.63555
IA02841 (MA713774890)	0.51000	0.44000	12.89972	13.60388	1	False	-0.50043
IA02902 (MA714251321)	0.46000	0.39000	13.40173	14.11728	1	False	-0.51413
IA04661 (MA307327)	0.83000	0.74000	9.18334	10.42662	1	False	0.77293
IA04965 (MA800867144)	0.66000	0.58000	11.35015	12.19243	1	False	-0.13241

Table 2.5.10
Delta Analysis
Mathematics Grade 5

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00771 (MA204911)	0.81000	0.73000	9.48841	10.54875	1	False	-0.34652
IA00776 (MA221207)	0.70000	0.66000	10.90240	11.35015	1	False	-0.71992
IA00803 (MA262207)	0.76000	0.72000	10.17479	10.66863	1	False	-0.80669
IA00806 (MA272292)	0.52000	0.47000	12.79939	13.30108	1	False	-1.01264
IA00826 (MA287178)	0.90000	0.85000	7.87379	8.85427	1	False	-0.69683
IA00872 (MA298003)	0.64000	0.63000	11.56616	11.67259	1	False	0.25118
IA00880 (MA298106)	0.28000	0.21000	15.33137	16.22568	1	False	-0.43489
IA00885 (MA299556)	0.79000	0.68000	9.77432	11.12920	1	False	0.55125
IA00936 (MA306420)	0.76000	0.69000	10.17479	11.01660	1	False	-0.95005
IA00943 (MA306466)	0.76000	0.62000	10.17479	11.77808	1	False	1.31941
IA00989 (MA307638)	0.91000	0.86000	7.63698	8.67872	1	False	-0.53070
IA01020 (MA311280)	0.40000	0.43000	14.01339	13.70550	1	False	1.31576
IA01028 (MA311333)	0.28000	0.20000	15.33137	16.36648	1	False	-0.01526
IA01029 (MA311337)	0.82000	0.83000	9.33854	9.18334	1	False	1.18584
IA01032 (MA311366)	0.39500	0.38500	14.06524	14.16950	4	False	0.08381
IA01149 (MA624347774)	0.42000	0.41000	13.80757	13.91018	1	False	0.10665
IA01155 (MA624357395)	0.54000	0.35000	12.59827	14.54128	2	False	2.50048
IA02552 (MA311324)	0.43000	0.38000	13.70550	14.22192	1	False	-1.11957
IA02736 (MA704359678)	0.54500	0.48500	12.54785	13.15043	4	False	-1.29584
IA04970 (MA800974344)	0.70000	0.70000	10.90240	10.90240	1	False	0.61452

Table 2.5.11
Delta Analysis
Mathematics Grade 6

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00777 (MA221667)	0.85000	0.85000	8.85427	8.85427	1	False	0.25134
IA00778 (MA221669)	0.84000	0.80000	9.02217	9.63352	1	False	-0.44461
IA00804 (MA264305)	0.77000	0.74000	10.04461	10.42662	1	False	-0.94060
IA00817 (MA280989)	0.52000	0.47000	12.79939	13.30108	1	False	-0.70511
IA00818 (MA282268)	0.45000	0.40000	13.50265	14.01339	1	False	-0.56076
IA00819 (MA282277)	0.54000	0.47000	12.59827	13.30108	1	False	-1.00062
IA00827 (MA287186)	0.70000	0.56000	10.90240	12.39612	1	False	2.53086
IA00845 (MA296349)	0.64000	0.56000	11.56616	12.39612	1	False	-0.23874
IA00881 (MA298139)	0.47250	0.45000	13.27595	13.50265	4	False	0.49386
IA00884 (MA298279)	0.20000	0.12000	16.36648	17.69995	1	False	0.50616
IA00899 (MA301508)	0.37000	0.33000	14.32741	14.75965	1	False	-0.04240
IA00972 (MA307339)	0.75500	0.74000	10.23876	10.42662	4	False	-0.13049
IA00992 (MA309941)	0.42000	0.41000	13.80757	13.91018	1	False	1.11583
IA01058 (MA311658)	0.53000	0.42000	12.69892	13.80757	1	False	0.56327
IA02037 (MA217493)	0.64000	0.66000	11.56616	11.35015	1	False	1.79079
IA02597 (MA311693)	0.84000	0.78000	9.02217	9.91123	1	False	0.64316
IA04745 (MA703231515)	0.56500	0.50000	12.34537	13.00000	2	False	-1.12468
IA04884 (MA736365836)	0.73000	0.68000	10.54875	11.12920	1	False	-0.95589
IA05126 (MA805103779)	0.61000	0.55000	11.88272	12.49735	1	False	-1.16309
IA05135 (MA805171807)	0.65000	0.58000	11.45872	12.19243	1	False	-0.58827

Table 2.5.12
Delta Analysis
Mathematics Grade 7

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00796 (MA259267)	0.44000	0.44000	13.60388	13.60388	1	False	-1.08470
IA00831 (MA288414)	0.75000	0.72000	10.30204	10.66863	1	False	0.07198
IA00847 (MA296358)	0.46000	0.53000	13.40173	12.69892	1	False	1.57506
IA00909 (MA301846)	0.90000	0.87000	7.87379	8.49444	1	False	0.84097
IA00910 (MA301854)	0.28000	0.35000	15.33137	14.54128	1	False	1.58436
IA00945 (MA306538)	0.70000	0.69000	10.90240	11.01660	1	False	-1.11356
IA00948 (MA306600)	0.85000	0.84000	8.85427	9.02217	1	False	-1.30809
IA00949 (MA306605)	0.51000	0.49000	12.89972	13.10028	1	False	-0.19550
IA01004 (MA311073)	0.18000	0.17000	16.66146	16.81666	1	False	0.44153
IA01006 (MA311093)	0.83000	0.85000	9.18334	8.85427	1	False	0.59409
IA01011 (MA311109)	0.42000	0.39000	13.80757	14.11728	1	False	0.58881
IA01016 (MA311125)	0.58000	0.55000	12.19243	12.49735	1	False	0.18799
IA01017 (MA311135)	0.74000	0.75000	10.42662	10.30204	1	False	-0.76888
IA01018 (MA311140)	0.37000	0.37000	14.32741	14.32741	1	False	-0.91637
IA01069 (MA316886)	0.49750	0.50750	13.02507	12.92480	4	False	-1.50102
IA01097 (MA623950280)	0.35000	0.32000	14.54128	14.87080	1	False	0.86352
IA01108 (MA624149677)	0.32500	0.38500	14.81505	14.16950	2	False	0.94559
IA02722 (MA703943185)	0.44500	0.48750	13.55322	13.12535	4	False	0.09617
IA04486 (MA227988)	0.69000	0.69000	11.01660	11.01660	1	False	-1.56024
IA04538 (MA282218)	0.65000	0.69000	11.45872	11.01660	1	False	0.65829

Table 2.5.13
Delta Analysis
Mathematics Grade 8

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA00849 (MA296757)	0.70000	0.62000	10.90240	11.77808	1	False	-0.36874
IA00858 (MA297513)	0.84000	0.76000	9.02217	10.17479	1	False	0.21929
IA00864 (MA297652)	0.79000	0.70250	9.77432	10.87358	4	False	0.17242
IA00865 (MA297656)	0.54000	0.53000	12.59827	12.69892	1	False	0.44746
IA00903 (MA301674)	0.78000	0.73000	9.91123	10.54875	1	False	-0.85562
IA00905 (MA301702)	0.53000	0.44000	12.69892	13.60388	1	False	0.03330
IA00979 (MA307472)	0.59000	0.63000	12.08982	11.67259	1	False	2.23261
IA00985 (MA307570)	0.59000	0.51000	12.08982	12.89972	1	False	-0.38220
IA01033 (MA311384)	0.64000	0.59000	11.56616	12.08982	1	False	-0.76407
IA01037 (MA311414)	0.46000	0.39000	13.40173	14.11728	1	False	-0.46822
IA01042 (MA311448)	0.69000	0.52000	11.01660	12.79939	1	False	2.62580
IA01044 (MA311463)	0.69000	0.64000	11.01660	11.56616	1	False	-0.75543
IA01066 (MA314812)	0.61000	0.55500	11.88272	12.44678	4	False	-0.95050
IA01125 (MA624247061)	0.47000	0.42500	13.30108	13.75647	2	False	-0.83571
IA02495 (MA309741)	0.42000	0.44000	13.80757	13.60388	1	False	1.23967
IA04665 (MA307399)	0.55000	0.48000	12.49735	13.20061	1	False	-0.66255
IA04678 (MA309738)	0.43000	0.39000	13.70550	14.11728	1	False	-0.76155
IA05057 (MA803856437)	0.85000	0.83000	8.85427	9.18334	1	False	0.33605
IA05059 (MA803856627)	0.75000	0.71000	10.30204	10.78646	1	False	-0.42006
IA05070 (MA804042487)	0.36000	0.29000	14.43384	15.21354	1	False	-0.08197

Table 2.5.14
Delta Analysis
Mathematics Grade 10

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA04800 (MA717740737)	0.54000	0.40000	12.59827	14.01339	1	False	1.22183
IA04810 (MA735534256)	0.37500	0.33500	14.27456	14.70459	2	False	-0.83798
IA04819 (MA735579095)	0.63000	0.57000	11.67259	12.29450	1	False	-0.61066
IA04824 (MA735632759)	0.51000	0.46000	12.89972	13.40173	1	False	-0.62330
IA04842 (MA735734830)	0.46000	0.40000	13.40173	14.01339	1	False	-1.10099
IA04846 (MA735743236)	0.86000	0.76000	8.67872	10.17479	1	False	0.21026
IA04847 (MA735745569)	0.48000	0.43000	13.20061	13.70550	1	False	-0.73017
IA04871 (MA736059227)	0.57000	0.50000	12.29450	13.00000	1	False	-1.08122
IA04913 (MA800433428)	0.60000	0.56000	11.98661	12.39612	1	False	-0.02958
IA04991 (MA801426792)	0.36000	0.33000	14.43384	14.75965	1	False	-0.55456
IA04993 (MA801434971)	0.31000	0.22000	14.98340	16.08877	1	False	0.99978
IA04997 (MA801564574)	0.41000	0.39500	13.91018	14.06524	2	False	0.16442
IA05048 (MA803762212)	0.54000	0.47000	12.59827	13.30108	1	False	-1.06858
IA05096 (MA804566054)	0.67500	0.55500	11.18495	12.44678	2	False	0.27032
IA05117 (MA804678931)	0.48000	0.35000	13.20061	14.54128	1	False	1.17788
IA05144 (MA805372590)	0.50000	0.41000	13.00000	13.91018	1	False	-0.27144
IA05145 (MA805373539)	0.30000	0.23000	15.09760	15.95539	1	False	0.24073
IA05147 (MA805376549)	0.92000	0.87000	7.37971	8.49444	1	False	-0.80227
IA05155 (MA806051920)	0.32000	0.29000	14.87080	15.21354	1	False	-0.75077
IA05165 (MA806383722)	0.41000	0.46000	13.91018	13.40173	4	False	2.29791
IA05170 (MA806408603)	0.40500	0.44250	13.96170	13.57854	4	False	1.87837

Table 2.5.15
Delta Analysis
Science Grade 5

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA05192 (SC264893)	0.32000	0.31333	14.87080	14.94570	3	False	0.17882
IA05466 (SC628483066)	0.88000	0.90000	8.30005	7.87379	1	False	2.75843
IA05523 (SC718127878)	0.69000	0.67000	11.01660	11.24035	1	False	-0.69211
IA05526 (SC735264282)	0.89000	0.86000	8.09389	8.67872	1	False	0.36853
IA05530 (SC735267831)	0.80000	0.79000	9.63352	9.77432	1	False	-0.27049
IA05545 (SC735535118)	0.50000	0.47000	13.00000	13.30108	1	False	-1.07266
IA05560 (SC736074266)	0.79000	0.78000	9.77432	9.91123	1	False	-0.24701
IA05562 (SC736074942)	0.65000	0.63000	11.45872	11.67259	2	False	-0.63094
IA05628 (SC802729980)	0.64000	0.63000	11.56616	11.67259	1	False	-0.05052
IA05630 (SC802758131)	0.79000	0.72000	9.77432	10.66863	1	False	2.00443
IA05631 (SC802758561)	0.57000	0.56000	12.29450	12.39612	1	False	-0.01152
IA05634 (SC802761427)	0.35333	0.32000	14.50535	14.87080	3	False	-0.92832
IA05657 (SC803732869)	0.42500	0.39500	13.75647	14.06524	2	False	-1.10041
IA05661 (SC803837124)	0.70000	0.67000	10.90240	11.24035	1	False	-1.01135
IA05662 (SC803844809)	0.70500	0.65000	10.84466	11.45872	2	False	0.47625
IA05664 (SC803847645)	0.81000	0.76000	9.48841	10.17479	1	False	0.89005
IA05678 (SC804048131)	0.89000	0.88000	8.09389	8.30005	1	False	-0.65019
IA05681 (SC804060300)	0.43000	0.37000	13.70550	14.32741	1	False	0.46691
IA05688 (SC804141602)	0.87000	0.84000	8.49444	9.02217	1	False	0.05387
IA05702 (SC806382697)	0.50000	0.48000	13.00000	13.20061	1	False	-0.53177

Table 2.5.16
Delta Analysis
Science Grade 8

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
IA05243 (SC289702)	0.44000	0.32000	13.60388	14.87080	1	False	2.98700
IA05245 (SC290144)	0.51000	0.53000	12.89972	12.69892	1	False	1.32079
IA05499 (SC633066301)	0.93000	0.91000	7.09684	7.63698	1	False	-0.39853
IA05522 (SC717662167)	0.52000	0.50000	12.79939	13.00000	1	False	-0.66116
IA05550 (SC735560046)	0.34000	0.27000	14.64985	15.45125	1	False	0.66038
IA05551 (SC735569222)	0.60000	0.52000	11.98661	12.79939	1	False	0.79721
IA05555 (SC735663104)	0.35000	0.34000	14.54128	14.64985	1	False	-0.15459
IA05581 (SC800285340)	0.40000	0.41000	14.01339	13.91018	1	False	0.87343
IA05649 (SC803174786)	0.70000	0.69000	10.90240	11.01660	1	False	-0.29268
IA05665 (SC803856876)	0.82000	0.82000	9.33854	9.33854	1	False	0.22288
IA05675 (SC803981496)	0.75000	0.72000	10.30204	10.66863	1	False	-1.35129
IA05687 (SC804132888)	0.78500	0.74000	9.84323	10.42662	2	False	-0.26864
IA05690 (SC804367702)	0.49000	0.44000	13.10028	13.60388	1	False	-0.76072
IA05693 (SC804372985)	0.69500	0.67000	10.95971	11.24035	2	False	-1.11146
IA05718 (SC807245653)	0.78000	0.74000	9.91123	10.42662	1	False	-0.60590
IA05720 (SC807247887)	0.64000	0.57000	11.56616	12.29450	1	False	0.39371
IA05727 (SC809171062)	0.50000	0.48000	13.00000	13.20061	1	False	-0.65508
IA05729 (SC809178849)	0.38000	0.35667	14.22192	14.46953	3	False	-0.84970
IA05750 (SC814258458)	0.46667	0.46667	13.33461	13.33461	3	False	0.34406
IA05777 (SC816343670)	0.63500	0.62000	11.61950	11.77808	2	False	-0.48971

Section 2.6

Tabled B/B Analysis Results

Table 2.6.1
b/b Analysis
English Language Arts Grade 3

Item Id	Old b	New b	Std Dist	Flag
IA00279 (EL308822)	-0.92977	-0.92350	-0.34105	False
IA00280 (EL308824)	-0.56172	-0.25530	-0.12732	False
IA00281 (EL308826)	0.09026	0.23710	-0.58507	False
IA00282 (EL308827)	-0.60316	-0.38590	-0.66042	False
IA00283 (EL308835)	-0.28528	-0.05590	-0.78304	False
IA00284 (EL308837)	-0.46364	-0.23490	-0.67562	False
IA00285 (EL308838)	-0.74705	-0.57560	-0.85773	False
IA00286 (EL308842)	0.73610	0.74700	0.67070	False
IA00287 (EL308855)	0.31714	0.68873	-0.26780	False
IA00288 (EL308857)	0.86123	0.97347	0.11355	False
IA00443 (EL626042844)	-1.01130	-0.60060	0.80734	False
IA00444 (EL626043062)	-0.50278	-0.27470	-0.65530	False
IA00445 (EL626043435)	-0.18325	-0.09995	-0.35759	False
IA00446 (EL626049849)	-0.18033	0.21130	0.16862	False
IA00450 (EL626050679)	-0.20396	-0.15840	-0.13392	False
IA00451 (EL626050927)	0.79202	0.46340	2.83426	False
IA00452 (EL626051097)	-0.22588	-0.19100	-0.08065	False
IA00453 (EL626051328)	-0.40439	-0.19850	-0.85589	False
IA00458A (EL626052459#SCORE_TRAIT_Conv)	1.00727	1.86193	2.32964	False
IA00458D (EL626052459#SCORE_TRAIT_Ideadev)	1.57680	2.03008	-0.54269	False

Table 2.6.2
b/b Analysis
English Language Arts Grade 4

Item Id	Old b	New b	Std Dist	Flag
IA00218 (EL307705)	-1.47899	-1.27790	-0.39470	False
IA00219 (EL307709)	-1.32580	-0.98150	-0.65224	False
IA00220 (EL307710)	0.41841	0.63720	-0.47351	False
IA00221 (EL307713)	0.06591	0.35070	-1.23660	False
IA00222 (EL307714)	-1.17271	-1.05360	0.54483	False
IA00223 (EL307719)	0.07812	0.31840	-0.73622	False
IA00224 (EL307724)	-0.71688	-0.50980	-0.41379	False
IA00225 (EL307728)	-0.26222	0.27203	1.41270	False
IA00226 (EL307729)	0.03026	0.49690	0.63529	False
IA00289 (EL309792)	-0.35621	-0.42900	2.75039	False
IA00407 (EL624647403)	0.52679	0.96940	0.33420	False
IA00408 (EL624647580)	-0.39052	-0.30030	0.91852	False
IA00411 (EL624652450)	-1.29795	-0.89500	0.00431	False
IA00412 (EL624652621)	-2.02010	-1.58150	0.45008	False
IA00414 (EL624652989)	0.70188	0.94660	-0.74666	False
IA00415 (EL624653348)	-0.69205	-0.39650	-1.23947	False
IA00416 (EL624653492)	-1.27948	-0.95205	-0.84453	False
IA00419 (EL624654711)	-1.66447	-1.35000	-0.96568	False
IA00421A (EL624655949#SCORE_TRAIT_Conv)	0.12301	0.61067	0.86534	False
IA00421D (EL624655949#SCORE_TRAIT_Ideadev)	1.04752	1.24658	-0.21225	False

Table 2.6.3
b/b Analysis
English Language Arts Grade 5

Item Id	Old b	New b	Std Dist	Flag
IA00495 (EL626304658)	-1.56540	-0.98640	0.74680	False
IA00497 (EL626304969)	-0.34409	-0.23580	0.15270	False
IA00500 (EL626332335)	-1.01730	-0.46280	0.61783	False
IA00501 (EL626332592)	-1.82150	-1.67380	0.03257	False
IA00502 (EL626333002)	-1.51485	-1.19220	-1.43580	False
IA00505 (EL626355215)	0.12400	-0.04320	2.43760	False
IA00506 (EL626355557)	-0.29694	-0.21710	0.38883	False
IA00508 (EL626356291)	0.42877	0.66250	-1.03222	False
IA00509A (EL626356806#SCORE_TRAIT_Conv)	0.00829	0.51417	0.35277	False
IA00509D (EL626356806#SCORE_TRAIT_Ideadev)	0.70574	1.12650	-0.27215	False
IA00638 (EL627351056)	-0.66376	-0.05390	1.14259	False
IA01669 (EL711809263)	-1.32010	-0.83300	-0.00235	False
IA01670 (EL711809592)	-0.82560	-0.52710	-1.40169	False
IA01671 (EL711827203)	-2.05800	-1.61940	-0.52485	False
IA01672 (EL711827807)	-0.96500	-1.02120	1.64895	False
IA01676A (EL711854812#SCORE_TRAIT_Conv)	0.08973	0.53557	-0.14822	False
IA01676D (EL711854812#SCORE_TRAIT_Ideadev)	0.79127	1.15623	-0.73636	False
IA01679 (EL711868011)	-0.28870	0.03915	-1.21165	False
IA01680 (EL711900602)	-0.46560	-0.27760	-0.51046	False
IA01691 (EL712167015)	0.45030	0.59150	-0.24489	False

Table 2.6.4
b/b Analysis
English Language Arts Grade 6

Item Id	Old b	New b	Std Dist	Flag
IA00173 (EL303496)	-1.61264	-0.64540	1.43563	False
IA00174 (EL303500)	-0.89312	-0.50140	0.94104	False
IA00175 (EL303504)	-0.65354	0.27440	2.37836	False
IA00176 (EL303508)	-1.59790	-0.80450	-0.29863	False
IA00177 (EL303510)	-2.42062	-1.51570	-0.32187	False
IA00178 (EL303513)	-1.14059	-0.45790	-0.77754	False
IA00179 (EL303514)	-0.66142	0.08200	0.50470	False
IA00180 (EL303518)	0.08389	0.40380	0.30147	False
IA00181A (EL303519#SCORE_TRAIT_Conv)	-0.28780	0.25660	-0.98253	False
IA00181D (EL303519#SCORE_TRAIT_Ideadev)	0.76188	1.12986	-1.13064	False
IA00515 (EL626864414)	-2.11926	-1.36530	-1.00323	False
IA00517 (EL626864724)	-1.13436	-0.56750	-0.49001	False
IA00518 (EL626865003)	-1.04450	-0.54760	0.09071	False
IA00520 (EL626865416)	0.88895	1.30420	-0.64283	False
IA00522 (EL626865773)	-0.88194	-0.40820	0.09747	False
IA00523 (EL626865942)	-0.72268	-0.41160	1.51704	False
IA00528 (EL626867605)	-1.82572	-1.03515	-0.64537	False
IA00530 (EL626868748)	-1.32762	-0.87075	0.89019	False
IA00531A (EL626869132#SCORE_TRAIT_Conv)	-0.49144	0.10657	-0.72579	False
IA00531D (EL626869132#SCORE_TRAIT_Ideadev)	0.67275	1.06884	-1.13818	False

Table 2.6.5
b/b Analysis
English Language Arts Grade 7

Item Id	Old b	New b	Std Dist	Flag
IA00065 (EL292160)	-1.29375	-0.61620	-0.00475	False
IA00066 (EL292163)	-1.09050	-0.39290	0.29553	False
IA00067 (EL292168)	-0.07467	0.45040	-0.28198	False
IA00068 (EL292170)	-1.12877	-0.50800	-0.31769	False
IA00069 (EL292172)	-0.45904	-0.15010	0.64222	False
IA00070 (EL292176)	-0.13875	-0.26820	3.75031	False
IA00071A (EL292181#SCORE_TRAIT_Conv)	-0.44445	0.12917	-0.18040	False
IA00071D (EL292181#SCORE_TRAIT_Ideadev)	0.65225	1.02844	-0.67667	False
IA00081 (EL293802)	-1.02931	-0.43230	-0.42656	False
IA00082 (EL293804)	-0.39273	0.23150	0.24281	False
IA00257 (EL308358)	-1.78014	-1.19520	-0.50220	False
IA00258 (EL308360)	-1.79449	-1.16810	-0.75796	False
IA00262 (EL308382)	-0.77688	-0.31480	-0.29406	False
IA00265 (EL308389)	-2.68728	-1.98410	-0.74489	False
IA00269 (EL308397)	-2.33283	-1.64890	-0.71017	False
IA00655 (EL628647210)	-1.16859	-0.57980	-0.59027	False
IA00657 (EL628647689)	-1.48855	-0.86800	-0.58045	False
IA00658 (EL628653398)	-1.59407	-1.11555	0.17369	False
IA00665A (EL628749729#SCORE_TRAIT_Conv)	-0.84178	-0.08687	0.91275	False
IA00665D (EL628749729#SCORE_TRAIT_Ideadev)	0.22706	0.76706	0.05075	False

Table 2.6.6
b/b Analysis
English Language Arts Grade 8

Item Id	Old b	New b	Std Dist	Flag
IA00056 (EL290795)	-2.03056	-1.25700	-0.59458	False
IA00057 (EL290798)	-1.86465	-1.31680	-0.47090	False
IA00058 (EL290799)	-0.98095	-0.45110	-0.62529	False
IA00059 (EL290800)	-0.49291	-0.19290	-0.86810	False
IA00060 (EL290801)	-0.94041	-0.49320	-1.07967	False
IA00061 (EL290805)	-0.42532	0.18360	0.64623	False
IA00062 (EL290808)	0.03451	0.24860	-1.07883	False
IA00063 (EL290814)	0.63593	0.70890	-1.05210	False
IA00064A (EL290818#SCORE_TRAIT_Conv)	-0.97008	-0.23157	0.68139	False
IA00064D (EL290818#SCORE_TRAIT_Ideadev)	0.18878	0.77546	1.37308	False
IA00368 (EL623873883)	-1.17975	-0.54340	-0.24604	False
IA00371 (EL623951471)	-0.60996	-0.46645	0.26522	False
IA00373 (EL623952377)	0.33642	0.41550	-0.66828	False
IA00374 (EL623952612)	-0.58072	-0.70720	1.89497	False
IA00376A (EL623953378#SCORE_TRAIT_Conv)	-1.21775	-0.46990	0.39052	False
IA00376D (EL623953378#SCORE_TRAIT_Ideadev)	0.34044	0.61200	-0.36364	False
IA00378 (EL623955555)	-0.13654	0.19740	-0.64904	False
IA00379 (EL623955757)	0.74075	0.25570	2.25383	False
IA00383 (EL623959265)	-0.72677	-0.25830	-0.64735	False
IA00699 (EL632808123)	-0.99454	-0.85620	0.83860	False

Table 2.6.7
b/b Analysis
English Language Arts Grade 10

Item Id	Old b	New b	Std Dist	Flag
IA04110 (EL807953958)	-0.77245	-0.20070	2.40311	False
IA04111 (EL807957225)	-1.75420	-1.54010	-0.73558	False
IA04132 (EL808046697)	-1.79230	-1.41200	-0.11242	False
IA04260 (EL811034362)	-1.10620	-0.60300	1.52966	False
IA04297 (EL811428116)	-0.25870	-0.15030	-1.09786	False
IA04412 (EL813438114)	-0.83710	-0.69030	-0.95800	False
IA04439 (EL816956706)	-0.49140	-0.39620	-0.81841	False
IA04440 (EL817235657)	-0.70495	-0.60000	-0.71619	False
IA06626A (EL811561885#SCORE_TRAIT_Conv)	-0.88903	-0.97790	1.09442	False
IA06626D (EL811561885#SCORE_TRAIT_Ideadev)	0.21778	0.05846	0.73424	False
IA06629 (EL811608986)	-2.50665	-2.37690	0.63571	False
IA06631 (EL811610832)	-0.50095	-0.41815	-0.70451	False
IA06633 (EL811612272)	-0.28660	-0.26040	-0.40837	False
IA06635 (EL811612951)	-1.18760	-0.74840	0.91390	False
IA06636 (EL811614524)	-1.42440	-1.10280	-0.29323	False
IA06638 (EL811616340)	-0.05610	-0.08020	-0.17991	False
IA06641 (EL811617473)	-1.28980	-1.07810	-1.11255	False
IA06642 (EL811618006)	-1.16250	-1.07460	-0.17400	False

Table 2.6.8
b/b Analysis
Mathematics Grade 3

Item Id	Old b	New b	Std Dist	Flag
IA00769 (MA203641)	-2.14981	-1.67800	0.25312	False
IA00799 (MA260559)	0.28471	0.43560	-0.45991	False
IA00834 (MA293457)	-0.89072	-0.82230	0.30856	False
IA00838 (MA293524)	-1.13737	-0.76770	0.41236	False
IA00850 (MA297405)	-0.82994	-0.59440	-1.03978	False
IA00852 (MA297438)	-0.44454	-0.31580	-1.29437	False
IA00924 (MA306310)	0.90644	1.05870	0.57053	False
IA00925 (MA306315)	-0.77521	-0.76280	0.93586	False
IA00930 (MA306359)	-0.44719	-0.53630	1.88000	False
IA00932 (MA306375)	0.68670	0.62140	-0.30940	False
IA00993 (MA310834)	-0.08713	-0.18950	1.48774	False
IA01019 (MA311277)	-1.18441	-0.72040	1.70870	False
IA01071 (MA623063509)	-1.04802	-0.91020	-0.44565	False
IA01080 (MA623654449)	0.84082	0.91940	-0.60828	False
IA01081 (MA623656013)	0.73540	0.84740	-0.29331	False
IA02323 (MA301611A)	-1.66430	-1.41770	-1.02693	False
IA04760 (MA713752330)	-1.72290	-1.26350	0.76640	False
IA04813 (MA735572247)	-0.94020	-0.82820	-0.24517	False
IA04828 (MA735653938)	-0.11790	-0.02590	-1.29064	False
IA04844 (MA735735757)	-0.23920	-0.08820	-1.30983	False

Table 2.6.9
b/b Analysis
Mathematics Grade 4

Item Id	Old b	New b	Std Dist	Flag
IA00789 (MA250543)	0.47116	0.38843	-0.32199	False
IA00828 (MA287237)	-1.05009	-0.95670	-0.07633	False
IA00841 (MA293718)	-0.50085	-0.18780	0.41742	False
IA00861 (MA297629)	-0.94584	-1.89860	2.12640	False
IA00869 (MA297988)	1.20857	1.39620	-0.88983	False
IA00906 (MA301811)	-0.55570	-0.44220	-0.31968	False
IA00958 (MA307055)	0.28365	0.36460	-0.99108	False
IA00961 (MA307081)	0.35737	0.25580	-0.32299	False
IA00963 (MA307085)	-0.44995	-0.36100	-0.48345	False
IA01048 (MA311534)	0.30497	0.20400	-0.35936	False
IA01049 (MA311537)	-0.35950	-0.21230	-0.31665	False
IA01055 (MA311572)	-0.28409	-0.05210	-0.03731	False
IA01057 (MA311581)	-0.23292	-0.22305	-0.93069	False
IA01093 (MA623879088)	-0.57251	-0.85490	-0.22696	False
IA02175 (MA286769)	-0.94805	-0.65560	0.62821	False
IA02819 (MA713583365)	0.42930	-0.54360	3.09787	False
IA02841 (MA713774890)	0.04340	0.22380	-0.44987	False
IA02902 (MA714251321)	0.31890	0.52230	-0.53981	False
IA04661 (MA307327)	-0.88210	-0.63380	0.41439	False
IA04965 (MA800867144)	-0.42060	-0.30990	-0.41830	False

Table 2.6.10
b/b Analysis
Mathematics Grade 5

Item Id	Old b	New b	Std Dist	Flag
IA00771 (MA204911)	-1.37220	-1.01110	-0.32591	False
IA00776 (MA221207)	-0.64768	-0.60030	0.07183	False
IA00803 (MA262207)	-0.59114	-0.54670	0.06351	False
IA00806 (MA272292)	0.10558	0.33060	-0.63236	False
IA00826 (MA287178)	-1.62060	-1.26820	-0.55358	False
IA00872 (MA298003)	-0.16060	-0.42590	2.54101	False
IA00880 (MA298106)	0.99954	1.21590	-0.16643	False
IA00885 (MA299556)	-0.78241	-0.36070	0.56793	False
IA00936 (MA306420)	-0.90358	-0.66450	-1.12045	False
IA00943 (MA306466)	0.11250	0.26220	-1.29415	False
IA00989 (MA307638)	-1.58309	-1.35600	-0.94954	False
IA01020 (MA311280)	0.71162	0.71090	-0.32776	False
IA01028 (MA311333)	0.93415	1.08610	-0.77563	False
IA01029 (MA311337)	-2.02305	-1.47360	0.94454	False
IA01032 (MA311366)	0.58016	0.47655	0.66178	False
IA01149 (MA624347774)	0.19357	0.44160	-0.37550	False
IA01155 (MA624357395)	0.19679	0.61235	1.10778	False
IA02552 (MA311324)	0.90100	1.08340	-0.52651	False
IA02736 (MA704359678)	-0.19382	0.04045	-0.73226	False
IA04970 (MA800974344)	-0.56790	-0.72390	1.82173	False

Table 2.6.11
b/b Analysis
Mathematics Grade 6

Item Id	Old b	New b	Std Dist	Flag
IA00777 (MA221667)	-1.51838	-1.28460	-0.18602	False
IA00778 (MA221669)	-1.11977	-0.96840	-0.90327	False
IA00804 (MA264305)	-1.39315	-1.20900	-0.63730	False
IA00817 (MA280989)	0.41930	0.42150	0.20898	False
IA00818 (MA282268)	0.85530	0.96030	-0.84286	False
IA00819 (MA282277)	0.01849	0.15890	-0.81596	False
IA00827 (MA287186)	-0.43982	-0.05650	1.41886	False
IA00845 (MA296349)	-0.11171	0.28010	1.55491	False
IA00881 (MA298139)	0.02634	0.17313	-0.75396	False
IA00884 (MA298279)	1.39727	1.57090	-0.26765	False
IA00899 (MA301508)	0.68487	0.66870	0.33911	False
IA00972 (MA307339)	-1.05234	-1.02760	0.24220	False
IA00992 (MA309941)	1.73513	1.83420	-0.92042	False
IA01058 (MA311658)	0.47245	0.71460	0.22882	False
IA02037 (MA217493)	-0.12940	-0.41140	3.00633	False
IA02597 (MA311693)	-1.23640	-0.99070	-0.02509	False
IA04745 (MA703231515)	-0.12870	0.01605	-0.79943	False
IA04884 (MA736365836)	-0.94140	-0.76930	-0.67594	False
IA05126 (MA805103779)	-0.25800	-0.20000	-0.20809	False
IA05135 (MA805171807)	-0.35000	-0.31610	0.03678	False

Table 2.6.12
b/b Analysis
Mathematics Grade 7

Item Id	Old b	New b	Std Dist	Flag
IA00796 (MA259267)	0.13145	0.49590	0.25532	False
IA00831 (MA288414)	-0.76278	-0.37770	-0.17820	False
IA00847 (MA296358)	-0.33040	-0.09490	-1.17322	False
IA00909 (MA301846)	-1.67685	-1.42370	-0.39270	False
IA00910 (MA301854)	0.38259	0.48870	-0.44303	False
IA00945 (MA306538)	-1.08666	-0.73800	-0.75332	False
IA00948 (MA306600)	-1.25261	-1.08740	0.14609	False
IA00949 (MA306605)	-0.31555	0.01500	-0.38254	False
IA01004 (MA311073)	1.08389	1.20290	-1.06002	False
IA01006 (MA311093)	-2.12289	-1.42470	1.84613	False
IA01011 (MA311109)	0.25144	0.87520	2.80998	False
IA01016 (MA311125)	0.06674	0.38630	-0.21788	False
IA01017 (MA311135)	-0.90608	-0.58700	-0.90786	False
IA01018 (MA311140)	0.32590	0.42280	-0.31536	False
IA01069 (MA316886)	-0.05988	0.02845	0.03808	False
IA01097 (MA623950280)	0.46659	0.57040	-0.48030	False
IA01108 (MA624149677)	0.24764	0.42110	-0.98951	False
IA02722 (MA703943185)	0.01352	0.06313	0.35525	False
IA04486 (MA227988)	-0.47100	-0.43920	0.86623	False
IA04538 (MA282218)	-0.70640	-0.66880	0.97683	False

Table 2.6.13
b/b Analysis
Mathematics Grade 8

Item Id	Old b	New b	Std Dist	Flag
IA00849 (MA296757)	-0.72688	-0.50130	-0.55754	False
IA00858 (MA297513)	-1.10940	-0.74620	0.09037	False
IA00864 (MA297652)	-0.95344	-0.76243	-0.74091	False
IA00865 (MA297656)	0.37275	0.34310	0.10533	False
IA00903 (MA301674)	-0.71994	-0.67580	-0.18528	False
IA00905 (MA301702)	0.08071	0.50770	0.47818	False
IA00979 (MA307472)	0.55941	-0.12930	3.31342	False
IA00985 (MA307570)	0.21467	0.61750	0.36871	False
IA01033 (MA311384)	-0.00034	0.13000	-0.65248	False
IA01037 (MA311414)	0.18734	0.31560	-0.65433	False
IA01042 (MA311448)	-0.66870	0.05440	1.87697	False
IA01044 (MA311463)	-0.70369	-0.56180	-0.66391	False
IA01066 (MA314812)	-0.38827	-0.19448	-0.69117	False
IA01125 (MA624247061)	0.17761	0.34070	-0.80498	False
IA02495 (MA309741)	0.24613	0.18770	0.25404	False
IA04665 (MA307399)	0.29860	0.60770	-0.08386	False
IA04678 (MA309738)	0.83780	1.01550	-0.69136	False
IA05057 (MA803856437)	-1.15930	-1.07330	-0.36169	False
IA05059 (MA803856627)	-0.67840	-0.60300	-0.34067	False
IA05070 (MA804042487)	0.88020	1.18680	-0.05886	False

Table 2.6.14
b/b Analysis
Mathematics Grade 10

Item Id	Old b	New b	Std Dist	Flag
IA04800 (MA717740737)	-0.13540	0.46560	0.57018	False
IA04810 (MA735534256)	0.68370	0.97265	-0.96471	False
IA04819 (MA735579095)	-0.38460	-0.24440	-0.31419	False
IA04824 (MA735632759)	0.31220	0.44630	-0.27463	False
IA04842 (MA735734830)	0.78180	1.07610	-0.93997	False
IA04846 (MA735743236)	-1.59870	-1.13510	-0.08005	False
IA04847 (MA735745569)	0.78710	0.77990	0.42185	False
IA04871 (MA736059227)	0.19690	0.31930	-0.21913	False
IA04913 (MA800433428)	0.97160	1.19720	-0.71206	False
IA04991 (MA801426792)	0.95670	1.16800	-0.64246	False
IA04993 (MA801434971)	0.92740	1.47870	0.31263	False
IA04997 (MA801564574)	0.38330	0.35160	0.53579	False
IA05048 (MA803762212)	0.13870	0.37200	-0.76135	False
IA05096 (MA804566054)	-0.49005	-0.21055	-0.99437	False
IA05117 (MA804678931)	0.08760	0.89450	1.57223	False
IA05144 (MA805372590)	-0.00030	1.10120	3.01167	False
IA05145 (MA805373539)	0.68950	0.93500	-0.81317	False
IA05147 (MA805376549)	-2.01320	-1.74720	-0.95120	False
IA05155 (MA806051920)	0.88120	1.02310	-0.30472	False
IA05165 (MA806383722)	0.16730	0.14810	0.47173	False
IA05170 (MA806408603)	0.31372	0.17118	1.07594	False

Table 2.6.15
b/b Analysis
Science Grade 5

Item Id	Old b	New b	Std Dist	Flag
IA05192 (SC264893)	0.96646	0.88227	0.63107	False
IA05466 (SC628483066)	-1.78080	-1.78970	1.27703	False
IA05523 (SC718127878)	-0.59270	-0.17020	1.07712	False
IA05526 (SC735264282)	-1.93810	-1.67580	-0.99851	False
IA05530 (SC735267831)	-0.92610	-1.12560	2.56845	False
IA05545 (SC735535118)	0.32770	0.42270	-0.66214	False
IA05560 (SC736074266)	-0.98020	-0.87770	-0.10157	False
IA05562 (SC736074942)	-0.72520	-0.47465	-0.52147	False
IA05628 (SC802729980)	-0.60710	-0.47360	-0.55732	False
IA05630 (SC802758131)	-0.89430	-0.49240	0.74851	False
IA05631 (SC802758561)	-0.48110	-0.28790	-0.91632	False
IA05634 (SC802761427)	0.98793	1.00173	-0.25406	False
IA05657 (SC803732869)	0.56765	0.66905	-0.83440	False
IA05661 (SC803837124)	-0.94170	-0.71480	-0.83647	False
IA05662 (SC803844809)	-0.93950	-0.64495	-0.23150	False
IA05664 (SC803847645)	-1.40920	-0.89190	1.53166	False
IA05678 (SC804048131)	-2.33390	-2.04230	-0.92685	False
IA05681 (SC804060300)	0.96850	1.21040	0.21393	False
IA05688 (SC804141602)	-1.70450	-1.36770	-0.22137	False
IA05702 (SC806382697)	0.47190	0.60610	-0.98578	False

Table 2.6.16
b/b Analysis
Science Grade 8

Item Id	Old b	New b	Std Dist	Flag
IA05243 (SC289702)	1.02660	1.49390	1.28855	False
IA05245 (SC290144)	0.21380	0.59400	0.22291	False
IA05499 (SC633066301)	-1.72770	-1.51790	-0.33096	False
IA05522 (SC717662167)	-0.05890	0.02520	0.10468	False
IA05550 (SC735560046)	0.68700	0.89790	-1.05208	False
IA05551 (SC735569222)	-0.13680	0.14600	-0.75218	False
IA05555 (SC735663104)	1.41100	1.78480	0.63213	False
IA05581 (SC800285340)	0.91380	0.65710	2.66343	False
IA05649 (SC803174786)	-1.15920	-1.05240	0.33589	False
IA05665 (SC803856876)	-2.60860	-1.96040	1.43705	False
IA05675 (SC803981496)	-0.87610	-0.63670	-0.91628	False
IA05687 (SC804132888)	-1.37975	-1.12320	-0.86868	False
IA05690 (SC804367702)	0.19550	0.44610	-0.90070	False
IA05693 (SC804372985)	-1.36135	-0.96775	-0.27259	False
IA05718 (SC807245653)	-1.11330	-0.86110	-0.93455	False
IA05720 (SC807247887)	-0.71690	-0.25550	0.56147	False
IA05727 (SC809171062)	0.00710	0.18160	-0.69972	False
IA05729 (SC809178849)	0.61243	0.81260	-1.15566	False
IA05750 (SC814258458)	0.19206	0.21057	0.57244	False
IA05777 (SC816343670)	-0.68805	-0.57100	0.06484	False

Section 2.7

Tabled Beta Analysis Results

Table 2.7.1
Beta Analysis
English Language Arts Grade 3

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00279 (EL308822)	2	0.83000	0.78000	02E	HR03	0.04714	False
IA00280 (EL308824)	2	0.73000	0.66000	02E	HR03	0.02771	False
IA00281 (EL308826)	2	0.63000	0.59000	02E	HR03	0.04901	False
IA00282 (EL308827)	2	0.71000	0.65000	02E	HR03	0.03836	False
IA00283 (EL308835)	2	0.63000	0.57000	02E	HR03	0.01222	False
IA00284 (EL308837)	2	0.74000	0.66000	02E	HR03	0.03017	False
IA00285 (EL308838)	2	0.84000	0.77000	02E	HR03	0.03002	False
IA00286 (EL308842)	2	0.47000	0.41000	02E	HR03	0.03706	False
IA00287 (EL308855)	4	1.51000	1.12000	ON01	HR03	-0.04308	False
IA00288 (EL308857)	4	1.25000	0.96000	ON01	HR03	-0.01667	False
IA00443 (EL626042844)	2	0.65000	0.66000	09E	HR04	0.01341	False
IA00444 (EL626043062)	2	0.73000	0.67000	09E	HR04	0.01005	False
IA00445 (EL626043435)	3	1.25000	1.03000	10E	HR04	0.03220	False
IA00446 (EL626049849)	2	0.66000	0.53000	10E	HR04	-0.01465	False
IA00450 (EL626050679)	2	0.72000	0.67000	10E	HR04	0.05721	True
IA00451 (EL626050927)	2	0.47000	0.51000	09E	HR04	0.08199	True
IA00452 (EL626051097)	3	1.14000	1.10000	10E	HR04	0.05065	True
IA00453 (EL626051328)	2	0.65000	0.64000	09E	HR04	0.04510	False
IA00458A (EL626052459#SCORE_TRAIT_Conv)	4	0.73000	0.56000	09E	HR04	-0.10309	True
IA00458D (EL626052459#SCORE_TRAIT_Ideadev)	5	0.79000	0.55000	09E	HR04	-0.03858	False

Table 2.7.2
Beta Analysis
English Language Arts Grade 4

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00218 (EL307705)	2	0.86000	0.81000	02E	HR03	0.01250	False
IA00219 (EL307709)	2	0.81000	0.77000	02E	HR03	-0.00274	False
IA00220 (EL307710)	2	0.46000	0.43000	02E	HR03	0.02193	False
IA00221 (EL307713)	2	0.58000	0.52000	02E	HR03	0.00351	False
IA00222 (EL307714)	2	0.82000	0.76000	02E	HR03	0.02396	False
IA00223 (EL307719)	2	0.60000	0.56000	02E	HR03	0.03421	False
IA00224 (EL307724)	2	0.78000	0.75000	02E	HR03	0.04965	False
IA00225 (EL307728)	4	1.68000	1.36000	ON01	HR03	-0.03822	False
IA00226 (EL307729)	4	1.59000	1.25000	ON01	HR03	-0.04049	False
IA00289 (EL309792)	2	0.67000	0.64000	02E	HR03	0.09167	True
IA00407 (EL624647403)	2	0.48000	0.41000	04	HR04	0.00816	False
IA00408 (EL624647580)	2	0.61000	0.58000	04	HR04	0.03745	False
IA00411 (EL624652450)	2	0.87000	0.78000	04	HR04	0.02336	False
IA00412 (EL624652621)	2	0.94000	0.90000	04	HR04	0.01679	False
IA00414 (EL624652989)	2	0.43000	0.43000	04	HR04	0.03299	False
IA00415 (EL624653348)	2	0.76000	0.67000	04	HR04	0.02496	False
IA00416 (EL624653492)	3	1.58000	1.44000	04	HR04	0.02304	False
IA00419 (EL624654711)	3	1.74000	1.60000	04	HR04	0.01940	False
IA00421A (EL624655949#SCORE_TRAIT_Conv)	4	1.56000	1.10000	07E	HR04	-0.03688	False
IA00421D (EL624655949#SCORE_TRAIT_Ideadev)	5	1.55000	1.01000	07E	HR04	-0.02652	False

Table 2.7.3
Beta Analysis
English Language Arts Grade 5

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00495 (EL626304658)	2	0.79000	0.75000	08E	HR03	-0.02900	False
IA00497 (EL626304969)	2	0.79000	0.73000	07E	HR03	0.00057	False
IA00500 (EL626332335)	2	0.70000	0.66000	08E	HR03	-0.01013	False
IA00501 (EL626332592)	2	0.88000	0.84000	07E	HR03	-0.00347	False
IA00502 (EL626333002)	2	0.87000	0.82000	07E	HR03	0.00167	False
IA00505 (EL626355215)	2	0.57000	0.60000	08E	HR03	0.07314	True
IA00506 (EL626355557)	2	0.60000	0.64000	07E	HR03	0.08702	True
IA00508 (EL626356291)	3	0.85000	0.73000	08E	HR03	-0.00273	False
IA00509A (EL626356806#SCORE_TRAIT_Conv)	4	1.38000	1.20000	07E	HR03	-0.04622	False
IA00509D (EL626356806#SCORE_TRAIT_Ideadev)	5	1.45000	1.26000	07E	HR03	-0.02208	False
IA00638 (EL627351056)	2	0.63000	0.66000	08E	HR03	0.01651	False
IA01669 (EL711809263)	2	0.82000	0.76000	10	HR04	0.01826	False
IA01670 (EL711809592)	2	0.81000	0.76000	09	HR04	0.03438	False
IA01671 (EL711827203)	2	0.94000	0.90000	10	HR04	-0.00077	False
IA01672 (EL711827807)	2	0.74000	0.73000	09	HR04	0.05332	True
IA01676A (EL711854812#SCORE_TRAIT_Conv)	4	1.56000	1.17000	10	HR04	-0.04367	False
IA01676D (EL711854812#SCORE_TRAIT_Ideadev)	5	1.46000	1.06000	10	HR04	0.00312	False
IA01679 (EL711868011)	3	1.20000	0.99000	10	HR04	-0.00818	False
IA01680 (EL711900602)	2	0.72000	0.70000	10	HR04	0.03978	False
IA01691 (EL712167015)	2	0.50000	0.46000	10	HR04	0.03785	False

Table 2.7.4
Beta Analysis
English Language Arts Grade 6

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00173 (EL303496)	2	0.86000	0.74000	02E	HR04	-0.01933	False
IA00174 (EL303500)	2	0.69000	0.64000	02E	HR04	0.03332	False
IA00175 (EL303504)	2	0.70000	0.61000	02E	HR04	-0.00158	False
IA00176 (EL303508)	2	0.78000	0.71000	02E	HR04	0.02063	False
IA00177 (EL303510)	2	0.92000	0.87000	02E	HR04	0.01140	False
IA00178 (EL303513)	2	0.78000	0.66000	02E	HR04	-0.03535	False
IA00179 (EL303514)	2	0.64000	0.63000	02E	HR04	0.03921	False
IA00180 (EL303518)	2	0.62000	0.57000	02E	HR04	0.04581	False
IA00181A (EL303519#SCORE_TRAIT_Conv)	4	1.63000	1.31000	01	HR04	-0.03820	False
IA00181D (EL303519#SCORE_TRAIT_Ideadev)	6	1.78000	1.65000	01	HR04	0.00153	False
IA00515 (EL626864414)	2	0.90000	0.83000	07E	HR03	0.01535	False
IA00517 (EL626864724)	2	0.82000	0.69000	08E	HR03	-0.00960	False
IA00518 (EL626865003)	2	0.74000	0.67000	08E	HR03	0.04611	False
IA00520 (EL626865416)	2	0.55000	0.41000	07E	HR03	-0.06348	True
IA00522 (EL626865773)	2	0.83000	0.72000	07E	HR03	0.01301	False
IA00523 (EL626865942)	2	0.67000	0.64000	07E	HR03	0.03690	False
IA00528 (EL626867605)	3	1.77000	1.54000	08E	HR03	0.01237	False
IA00530 (EL626868748)	3	1.58000	1.41000	07E	HR03	0.05979	True
IA00531A (EL626869132#SCORE_TRAIT_Conv)	4	1.85000	1.41000	07E	HR03	-0.05043	True
IA00531D (EL626869132#SCORE_TRAIT_Ideadev)	6	2.09000	1.65000	07E	HR03	-0.00958	False

Table 2.7.5
Beta Analysis
English Language Arts Grade 7

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00065 (EL292160)	2	0.83000	0.73000	ON01	HR04	-0.00564	False
IA00066 (EL292163)	2	0.74000	0.65000	ON01	HR04	0.00176	False
IA00067 (EL292168)	2	0.59000	0.50000	ON01	HR04	-0.00143	False
IA00068 (EL292170)	2	0.80000	0.71000	ON01	HR04	0.00747	False
IA00069 (EL292172)	2	0.67000	0.62000	ON01	HR04	0.06759	True
IA00070 (EL292176)	2	0.62000	0.62000	ON01	HR04	0.08588	True
IA00071A (EL292181#SCORE_TRAIT_Conv)	4	1.64000	1.45000	01	HR04	-0.03531	False
IA00071D (EL292181#SCORE_TRAIT_Ideadev)	6	1.77000	1.63000	01	HR04	0.00219	False
IA00081 (EL293802)	2	0.75000	0.68000	ON01	HR04	0.02847	False
IA00082 (EL293804)	2	0.64000	0.54000	ON01	HR04	-0.03078	False
IA00257 (EL308358)	2	0.90000	0.85000	04E	HR03	0.01627	False
IA00258 (EL308360)	3	1.61000	1.51000	03E	HR03	0.03733	False
IA00262 (EL308382)	2	0.75000	0.65000	04E	HR03	0.02642	False
IA00265 (EL308389)	2	0.92000	0.90000	04E	HR03	0.02498	False
IA00269 (EL308397)	2	0.90000	0.84000	03E	HR03	-0.01207	False
IA00655 (EL628647210)	2	0.78000	0.72000	03E	HR03	0.02250	False
IA00657 (EL628647689)	2	0.86000	0.77000	03E	HR03	0.02731	False
IA00658 (EL628653398)	3	1.54000	1.48000	03E	HR03	0.06602	True
IA00665A (EL628749729#SCORE_TRAIT_Conv)	4	2.00000	1.58000	03E	HR03	-0.07421	True
IA00665D (EL628749729#SCORE_TRAIT_Ideadev)	6	2.20000	1.77000	03E	HR03	-0.03241	False

Table 2.7.6
Beta Analysis
English Language Arts Grade 8

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00056 (EL290795)	2	0.84000	0.77000	ON01	HR04	-0.01586	False
IA00057 (EL290798)	2	0.80000	0.78000	ON01	HR04	0.03434	False
IA00058 (EL290799)	2	0.80000	0.75000	ON01	HR04	0.01837	False
IA00059 (EL290800)	2	0.70000	0.67000	ON01	HR04	0.05855	True
IA00060 (EL290801)	2	0.84000	0.77000	ON01	HR04	0.01385	False
IA00061 (EL290805)	2	0.65000	0.56000	ON01	HR04	-0.02065	False
IA00062 (EL290808)	2	0.57000	0.54000	ON01	HR04	0.06249	True
IA00063 (EL290814)	2	0.49000	0.44000	ON01	HR04	0.02318	False
IA00064A (EL290818#SCORE_TRAIT_Conv)	4	2.05000	1.70000	01	HR04	-0.06391	True
IA00064D (EL290818#SCORE_TRAIT_Ideadev)	6	2.19000	1.83000	01	HR04	-0.05074	True
IA00368 (EL623873883)	2	0.81000	0.72000	ON02	HR03	-0.00028	False
IA00371 (EL623951471)	3	1.26000	1.21000	ON02	HR03	0.08324	True
IA00373 (EL623952377)	3	0.93000	0.84000	ON02	HR03	0.03511	False
IA00374 (EL623952612)	2	0.72000	0.73000	ON02	HR03	0.10241	True
IA00376A (EL623953378#SCORE_TRAIT_Conv)	4	2.24000	1.89000	06E	HR03	-0.03961	False
IA00376D (EL623953378#SCORE_TRAIT_Ideadev)	6	2.46000	2.01000	06E	HR03	-0.01432	False
IA00378 (EL623955555)	2	0.60000	0.51000	ON02	HR03	-0.02026	False
IA00379 (EL623955757)	2	0.54000	0.54000	ON02	HR03	0.06045	True
IA00383 (EL623959265)	2	0.71000	0.65000	ON02	HR03	0.03113	False
IA00699 (EL632808123)	2	0.81000	0.77000	ON02	HR03	0.04208	False

Table 2.7.7
Beta Analysis
English Language Arts Grade 10

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA04110 (EL807953958)	3	1.34000	1.08000	ON06	HR03	-0.11039	True
IA04111 (EL807957225)	2	0.79000	0.79000	ON12	HR03	0.01329	False
IA04132 (EL808046697)	2	0.90000	0.88000	ON05	HR03	-0.00440	False
IA04260 (EL811034362)	2	0.79000	0.73000	ON13	HR04	-0.04995	False
IA04297 (EL811428116)	2	0.64000	0.61000	ON17	HR04	-0.01091	False
IA04412 (EL813438114)	2	0.80000	0.74000	ON05	HR03	-0.04841	False
IA04439 (EL816956706)	2	0.68000	0.67000	ON10	HR04	0.01379	False
IA04440 (EL817235657)	3	1.28000	1.27000	ON10	HR04	0.01451	False
IA06626A (EL811561885#SCORE_TRAIT_Conv)	4	2.14000	2.24000	ON14	HR03	0.05104	True
IA06626D (EL811561885#SCORE_TRAIT_Ideadev)	6	2.33000	2.50000	ON11	HR03	0.03842	False
IA06629 (EL811608986)	3	1.53000	1.50000	ON18	HR03	-0.01213	False
IA06631 (EL811610832)	3	1.20000	1.18000	ON19	HR03	-0.00351	False
IA06633 (EL811612272)	2	0.62000	0.60000	ON11	HR03	-0.00266	False
IA06635 (EL811612951)	2	0.82000	0.80000	ON12	HR03	-0.02610	False
IA06636 (EL811614524)	2	0.84000	0.82000	ON20	HR03	-0.00590	False
IA06638 (EL811616340)	2	0.60000	0.62000	ON15	HR03	0.01966	False
IA06641 (EL811617473)	2	0.80000	0.78000	ON16	HR03	-0.01874	False
IA06642 (EL811618006)	2	0.82000	0.82000	ON13	HR03	0.00373	False

Table 2.7.8
Beta Analysis
Mathematics Grade 3

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00769 (MA203641)	2	0.90000	0.83000	ON19	HR19	-0.02907	False
IA00799 (MA260559)	2	0.65000	0.49000	14E	HR05	-0.02685	False
IA00834 (MA293457)	2	0.85000	0.79000	ON03	HR03	0.01190	False
IA00838 (MA293524)	2	0.81000	0.74000	15E	HR07	-0.03397	False
IA00850 (MA297405)	2	0.77000	0.69000	ON09	HR09	-0.01813	False
IA00852 (MA297438)	2	0.70000	0.63000	ON06	HR06	-0.00634	False
IA00924 (MA306310)	2	0.55000	0.46000	16	HR14	-0.00547	False
IA00925 (MA306315)	2	0.82000	0.75000	02E	HR02	-0.01064	False
IA00930 (MA306359)	2	0.62000	0.66000	13E	HR04	0.07667	True
IA00932 (MA306375)	2	0.48000	0.48000	ON13	HR13	0.03525	False
IA00993 (MA310834)	2	0.66000	0.63000	05E	HR18	0.04290	False
IA01019 (MA311277)	2	0.78000	0.74000	11E	HR17	-0.02942	False
IA01071 (MA623063509)	2	0.72000	0.73000	11E	HR16	0.02319	False
IA01080 (MA623654449)	4	1.08000	0.95000	05E	HR21	-0.00814	False
IA01081 (MA623656013)	4	1.08000	0.86000	06E	HR08	-0.01456	False
IA02323 (MA301611A)	2	0.88000	0.83000	04	HR15	-0.00122	False
IA04760 (MA713752330)	2	0.85000	0.77000	ON13	HR11	-0.03802	False
IA04813 (MA735572247)	2	0.75000	0.72000	ON13	HR12	0.02894	False
IA04828 (MA735653938)	2	0.59000	0.51000	ON07	HR10	0.00742	False
IA04844 (MA735735757)	2	0.65000	0.62000	ON05	HR20	0.02165	False

Table 2.7.9
Beta Analysis
Mathematics Grade 4

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00789 (MA250543)	5	1.92000	1.66000	06E	HR20	0.01022	False
IA00828 (MA287237)	2	0.78000	0.76000	01B	HR06	-0.02341	False
IA00841 (MA293718)	2	0.78000	0.71000	ON07	HR08	-0.03713	False
IA00861 (MA297629)	2	0.87000	0.89000	ON25	HR21	0.05761	True
IA00869 (MA297988)	2	0.24000	0.18000	ON16	HR16	-0.03097	False
IA00906 (MA301811)	2	0.76000	0.73000	ON09	HR09	-0.00165	False
IA00958 (MA307055)	2	0.57000	0.46000	ON10	HR10	-0.06288	True
IA00961 (MA307081)	2	0.54000	0.53000	ON13	HR13	0.01496	False
IA00963 (MA307085)	2	0.76000	0.67000	ON01	HR15	-0.05160	True
IA01048 (MA311534)	2	0.56000	0.54000	ON12	HR12	0.03423	False
IA01049 (MA311537)	2	0.70000	0.66000	ON18	HR18	-0.00616	False
IA01055 (MA311572)	2	0.64000	0.52000	ON21	HR19	-0.06488	True
IA01057 (MA311581)	5	2.22000	2.21000	04E	HR11	-0.00004	False
IA01093 (MA623879088)	3	1.41000	1.46000	ON14	HR14	0.07731	True
IA02175 (MA286769)	2	0.78000	0.75000	01	HR03	-0.04876	False
IA02819 (MA713583365)	2	0.42000	0.61000	05	HR17	0.21001	True
IA02841 (MA713774890)	2	0.51000	0.44000	21	HR05	-0.05503	True
IA02902 (MA714251321)	2	0.46000	0.39000	14	HR04	-0.04540	False
IA04661 (MA307327)	2	0.83000	0.74000	ON20	HR07	-0.03381	False
IA04965 (MA800867144)	2	0.66000	0.58000	ON10	HR02	-0.02696	False

Table 2.7.10
Beta Analysis
Mathematics Grade 5

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00771 (MA204911)	2	0.81000	0.73000	ON08	HR08	-0.02345	False
IA00776 (MA221207)	2	0.70000	0.66000	ON20	HR20	0.02899	False
IA00803 (MA262207)	2	0.76000	0.72000	12E	HR05	0.03116	False
IA00806 (MA272292)	2	0.52000	0.47000	06E	HR23	-0.01825	False
IA00826 (MA287178)	2	0.90000	0.85000	04E	HR06	-0.00493	False
IA00872 (MA298003)	2	0.64000	0.63000	ON07	HR07	0.03025	False
IA00880 (MA298106)	2	0.28000	0.21000	14E	HR04	-0.01759	False
IA00885 (MA299556)	2	0.79000	0.68000	ON18	HR18	-0.03049	False
IA00936 (MA306420)	2	0.76000	0.69000	10E	HR09	-0.02079	False
IA00943 (MA306466)	2	0.76000	0.62000	03E	HR11	0.00688	False
IA00989 (MA307638)	2	0.91000	0.86000	11E	HR12	-0.00454	False
IA01020 (MA311280)	2	0.40000	0.43000	10E	HR13	0.04385	False
IA01028 (MA311333)	2	0.28000	0.20000	05E	HR15	-0.00485	False
IA01029 (MA311337)	2	0.82000	0.83000	13E	HR17	-0.04782	False
IA01032 (MA311366)	5	1.58000	1.54000	ON19	HR19	0.04739	False
IA01149 (MA624347774)	2	0.42000	0.41000	14E	HR16	-0.01730	False
IA01155 (MA624357395)	3	1.08000	0.70000	02E	HR03	-0.06072	True
IA02552 (MA311324)	2	0.43000	0.38000	14	HR14	-0.02583	False
IA02736 (MA704359678)	5	2.18000	1.94000	10	HR02	-0.01704	False
IA04970 (MA800974344)	2	0.70000	0.70000	ON26	HR10	0.07383	True

Table 2.7.11
Beta Analysis
Mathematics Grade 6

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00777 (MA221667)	2	0.85000	0.85000	ON10	HR10	0.04206	False
IA00778 (MA221669)	2	0.84000	0.80000	ON11	HR11	0.01113	False
IA00804 (MA264305)	2	0.77000	0.74000	ON17	HR17	0.02724	False
IA00817 (MA280989)	2	0.52000	0.47000	ON21	HR14	0.02774	False
IA00818 (MA282268)	2	0.45000	0.40000	ON05	HR05	0.01294	False
IA00819 (MA282277)	2	0.54000	0.47000	ON06	HR03	-0.00925	False
IA00827 (MA287186)	2	0.70000	0.56000	ON09	HR09	-0.07114	True
IA00845 (MA296349)	2	0.64000	0.56000	ON16	HR16	-0.02768	False
IA00881 (MA298139)	5	1.89000	1.80000	03E	HR03	-0.01475	False
IA00884 (MA298279)	2	0.20000	0.12000	ON15	HR15	-0.02915	False
IA00899 (MA301508)	2	0.37000	0.33000	ON01	HR06	0.02427	False
IA00972 (MA307339)	5	3.02000	2.96000	01E	HR02	0.01129	False
IA00992 (MA309941)	2	0.42000	0.41000	ON02	HR02	0.01412	False
IA01058 (MA311658)	2	0.53000	0.42000	ON13	HR13	-0.04421	False
IA02037 (MA217493)	2	0.64000	0.66000	19	HR03	0.05409	True
IA02597 (MA311693)	2	0.84000	0.78000	18	HR04	-0.02842	False
IA04745 (MA703231515)	3	1.13000	1.00000	ON01	HR03	-0.01071	False
IA04884 (MA736365836)	2	0.73000	0.68000	ON16	HR12	0.01201	False
IA05126 (MA805103779)	2	0.61000	0.55000	ON13	HR07	0.00572	False
IA05135 (MA805171807)	2	0.65000	0.58000	ON20	HR08	0.01415	False

Table 2.7.12
Beta Analysis
Mathematics Grade 7

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00796 (MA259267)	2	0.44000	0.44000	O081	HR08	-0.05211	True
IA00831 (MA288414)	2	0.75000	0.72000	O182	HR18	0.00395	False
IA00847 (MA296358)	2	0.46000	0.53000	O171	HR17	-0.01739	False
IA00909 (MA301846)	2	0.90000	0.87000	O131	HR13	-0.00663	False
IA00910 (MA301854)	2	0.28000	0.35000	O071	HR07	0.00177	False
IA00945 (MA306538)	2	0.70000	0.69000	O212	HR21	-0.02017	False
IA00948 (MA306600)	2	0.85000	0.84000	O111	HR11	0.00587	False
IA00949 (MA306605)	2	0.51000	0.49000	O051	HR05	-0.04176	False
IA01004 (MA311073)	2	0.18000	0.17000	O152	HR15	-0.01328	False
IA01006 (MA311093)	2	0.83000	0.85000	O201	HR20	-0.01111	False
IA01011 (MA311109)	2	0.42000	0.39000	O122	HR12	-0.10039	True
IA01016 (MA311125)	2	0.58000	0.55000	O192	HR19	-0.03189	False
IA01017 (MA311135)	2	0.74000	0.75000	O142	HR14	0.02140	False
IA01018 (MA311140)	2	0.37000	0.37000	O102	HR10	0.01138	False
IA01069 (MA316886)	5	1.99000	2.03000	O031	HR03	0.01135	False
IA01097 (MA623950280)	2	0.35000	0.32000	O061	HR06	0.00264	False
IA01108 (MA624149677)	3	0.65000	0.77000	O042	HR04	-0.00988	False
IA02722 (MA703943185)	5	1.78000	1.95000	O022	HR02	0.03399	False
IA04486 (MA227988)	2	0.69000	0.69000	O092	HR09	0.05289	True
IA04538 (MA282218)	2	0.65000	0.69000	O161	HR16	0.04994	False

Table 2.7.13
Beta Analysis
Mathematics Grade 8

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA00849 (MA296757)	2	0.70000	0.62000	ON17	HR17	-0.00764	False
IA00858 (MA297513)	2	0.84000	0.76000	ON01	HR04	-0.02869	False
IA00864 (MA297652)	5	3.16000	2.81000	02E	HR03	-0.00611	False
IA00865 (MA297656)	2	0.54000	0.53000	ON11	HR11	0.04179	False
IA00903 (MA301674)	2	0.78000	0.73000	ON13	HR13	0.01350	False
IA00905 (MA301702)	2	0.53000	0.44000	ON12	HR07	-0.03148	False
IA00979 (MA307472)	2	0.59000	0.63000	ON20	HR13	0.08385	True
IA00985 (MA307570)	2	0.59000	0.51000	ON18	HR18	-0.02689	False
IA01033 (MA311384)	2	0.64000	0.59000	ON08	HR08	0.00569	False
IA01037 (MA311414)	2	0.46000	0.39000	ON10	HR10	0.00749	False
IA01042 (MA311448)	2	0.69000	0.52000	ON05	HR05	-0.11311	True
IA01044 (MA311463)	2	0.69000	0.64000	ON15	HR15	0.01583	False
IA01066 (MA314812)	5	2.44000	2.22000	01E	HR02	-0.00685	False
IA01125 (MA624247061)	3	0.94000	0.85000	ON14	HR14	0.00126	False
IA02495 (MA309741)	2	0.42000	0.44000	01	HR15	0.05584	True
IA04665 (MA307399)	2	0.55000	0.48000	ON04	HR16	0.00249	False
IA04678 (MA309738)	2	0.43000	0.39000	ON01	HR04	0.00567	False
IA05057 (MA803856437)	2	0.85000	0.83000	ON19	HR12	0.03265	False
IA05059 (MA803856627)	2	0.75000	0.71000	ON18	HR09	0.01726	False
IA05070 (MA804042487)	2	0.36000	0.29000	ON18	HR04	-0.02723	False

Table 2.7.14
Beta Analysis
Mathematics Grade 10

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA04800 (MA717740737)	2	0.54000	0.40000	ON23	ON11	-0.09150	True
IA04810 (MA735534256)	3	0.75000	0.67000	ON09	ON02	-0.00427	False
IA04819 (MA735579095)	2	0.63000	0.57000	ON03	ON10	0.01611	False
IA04824 (MA735632759)	2	0.51000	0.46000	ON06	ON17	-0.00249	False
IA04842 (MA735734830)	2	0.46000	0.40000	ON09	ON09	-0.02328	False
IA04846 (MA735743236)	2	0.86000	0.76000	ON13	ON10	-0.06256	True
IA04847 (MA735745569)	2	0.48000	0.43000	ON15	ON06	-0.00151	False
IA04871 (MA736059227)	2	0.57000	0.50000	ON05	ON03	-0.00974	False
IA04913 (MA800433428)	2	0.60000	0.56000	ON18	ON11	-0.00701	False
IA04991 (MA801426792)	2	0.36000	0.33000	ON27	ON14	0.00190	False
IA04993 (MA801434971)	2	0.31000	0.22000	ON14	ON07	-0.05312	True
IA04997 (MA801564574)	3	0.82000	0.79000	ON09	ON08	0.04890	False
IA05048 (MA803762212)	2	0.54000	0.47000	ON20	ON16	-0.01434	False
IA05096 (MA804566054)	3	1.35000	1.11000	ON03	ON05	-0.03071	False
IA05117 (MA804678931)	2	0.48000	0.35000	ON11	ON19	-0.10801	True
IA05144 (MA805372590)	2	0.50000	0.41000	ON17	ON20	-0.07884	True
IA05145 (MA805373539)	2	0.30000	0.23000	ON12	ON13	-0.03192	False
IA05147 (MA805376549)	2	0.92000	0.87000	ON27	ON12	-0.03543	False
IA05155 (MA806051920)	2	0.32000	0.29000	ON23	ON18	0.02309	False
IA05165 (MA806383722)	5	1.64000	1.84000	ON01	ON04	0.03945	False
IA05170 (MA806408603)	5	1.62000	1.77000	ON02	ON07	0.06819	True

Table 2.7.15
Beta Analysis
Science Grade 5

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA05192 (SC264893)	4	0.96000	0.94000	ON16	HR16	0.01587	False
IA05466 (SC628483066)	2	0.88000	0.90000	ON03	HR17	0.03531	False
IA05523 (SC718127878)	2	0.69000	0.67000	ON08	HR08	0.00380	False
IA05526 (SC735264282)	2	0.89000	0.86000	ON02	HR09	0.00379	False
IA05530 (SC735267831)	2	0.80000	0.79000	ON16	HR02	0.00885	False
IA05545 (SC735535118)	2	0.50000	0.47000	ON06	HR19	-0.00531	False
IA05560 (SC736074266)	2	0.79000	0.78000	ON11	HR15	0.02707	False
IA05562 (SC736074942)	3	1.30000	1.26000	ON17	HR06	0.00894	False
IA05628 (SC802729980)	2	0.64000	0.63000	ON06	HR02	0.01969	False
IA05630 (SC802758131)	2	0.79000	0.72000	ON06	HR02	-0.02681	False
IA05631 (SC802758561)	2	0.57000	0.56000	ON06	HR02	0.01096	False
IA05634 (SC802761427)	4	1.06000	0.96000	ON06	HR02	-0.01221	False
IA05657 (SC803732869)	3	0.85000	0.79000	ON10	HR12	-0.00842	False
IA05661 (SC803837124)	2	0.70000	0.67000	ON12	HR14	0.00507	False
IA05662 (SC803844809)	3	1.41000	1.30000	ON18	HR18	-0.01495	False
IA05664 (SC803847645)	2	0.81000	0.76000	ON18	HR06	-0.02747	False
IA05678 (SC804048131)	2	0.89000	0.88000	ON16	HR05	0.00895	False
IA05681 (SC804060300)	2	0.43000	0.37000	ON14	HR13	-0.04778	False
IA05688 (SC804141602)	2	0.87000	0.84000	ON16	HR18	-0.00217	False
IA05702 (SC806382697)	2	0.50000	0.48000	ON13	HR10	0.00691	False

Table 2.7.16
Beta Analysis
Science Grade 8

Item Id	NumScoreCats	Old Mean	New Mean	Old Form	Form	Beta	Flag Beta
IA05243 (SC289702)	2	0.44000	0.32000	0102	HR12	-0.08936	True
IA05245 (SC290144)	2	0.51000	0.53000	0102	HR04	0.05264	True
IA05499 (SC633066301)	2	0.93000	0.91000	ON01	HR05	0.00129	False
IA05522 (SC717662167)	2	0.52000	0.50000	ON14	HR18	0.03137	False
IA05550 (SC735560046)	2	0.34000	0.27000	ON10	HR17	-0.03010	False
IA05551 (SC735569222)	2	0.60000	0.52000	ON13	HR16	-0.04013	False
IA05555 (SC735663104)	2	0.35000	0.34000	ON08	HR03	0.00127	False
IA05581 (SC800285340)	2	0.40000	0.41000	ON11	HR11	0.03559	False
IA05649 (SC803174786)	2	0.70000	0.69000	ON16	HR14	0.00857	False
IA05665 (SC803856876)	2	0.82000	0.82000	ON16	HR13	0.02197	False
IA05675 (SC803981496)	2	0.75000	0.72000	ON08	HR06	-0.00448	False
IA05687 (SC804132888)	3	1.57000	1.48000	ON06	HR10	-0.00621	False
IA05690 (SC804367702)	2	0.49000	0.44000	ON09	HR15	-0.01515	False
IA05693 (SC804372985)	3	1.39000	1.34000	ON12	HR09	0.00174	False
IA05718 (SC807245653)	2	0.78000	0.74000	ON05	HR02	-0.01084	False
IA05720 (SC807247887)	2	0.64000	0.57000	ON06	HR02	-0.04679	False
IA05727 (SC809171062)	2	0.50000	0.48000	ON05	HR02	0.00362	False
IA05729 (SC809178849)	4	1.14000	1.07000	ON06	HR02	-0.00545	False
IA05750 (SC814258458)	4	1.40000	1.40000	ON11	HR07	0.03263	False
IA05777 (SC816343670)	3	1.27000	1.24000	ON15	HR08	0.00948	False

Section 2.8

Final Item Parameters

Table 2.8.1
IRT Parameters for Dichotomous Items
English Language Arts Grade 3

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA06369 (EL292647)	1.28842	0.00000	-0.64920	0.00000	0.18800	0.00000
IA06370 (EL292648)	1.18671	0.00000	-0.80420	0.00000	0.21620	0.00000
IA06372 (EL292654)	1.03563	0.00000	0.27210	0.00000	0.25560	0.00000
IA06374 (EL292657)	0.42934	0.00000	-0.68960	0.00000	0.08650	0.00000
IA06690 (EL835280082)	0.97748	0.00000	0.43130	0.00000	0.26700	0.00000
IA06692 (EL835281423)	0.33792	0.00000	-0.34300	0.00000	0.02120	0.00000
IA06693 (EL835281675)	0.84456	0.00000	-0.83520	0.00000	0.16040	0.00000
IA06694 (EL835338102)	0.76290	0.00000	-1.23570	0.00000	0.00630	0.00000
IA06695 (EL835338434)	0.85720	0.00000	-1.49850	0.00000	0.05070	0.00000
IA06696 (EL835338750)	0.34080	0.00000	-1.01710	0.00000	0.01790	0.00000
IA06697 (EL835338894)	0.92069	0.00000	-0.66400	0.00000	0.14700	0.00000
IA06698 (EL835339761)	1.30417	0.00000	-1.33490	0.00000	0.21100	0.00000
IA06702 (EL835340904)	0.92116	0.00000	-0.25670	0.00000	0.19310	0.00000
IA06703 (EL835341639)	0.80082	0.00000	0.48240	0.00000	0.21900	0.00000
IA06804 (EL905643350)	0.76055	0.00000	0.43820	0.00000	0.34660	0.00000
IA07224 (EL912460887)	0.92957	0.00000	-0.56090	0.00000	0.18390	0.00000
IA07226 (EL912462780)	0.64356	0.00000	-0.99400	0.00000	0.00680	0.00000
IA07227 (EL912463130)	0.90547	0.00000	-1.16420	0.00000	0.12990	0.00000
IA07228 (EL912463283)	0.83927	0.00000	-0.80270	0.00000	0.15500	0.00000
IA07229 (EL912463417)	1.02475	0.00000	-0.62790	0.00000	0.15220	0.00000
IA07251 (EL912651426)	1.20376	0.00000	-0.16840	0.00000	0.23660	0.00000
IA07352 (EL916150555)	0.85797	0.00000	0.64890	0.00000	0.21620	0.00000
IA07370 (EL916532720)	1.03739	0.00000	-1.54450	0.00000	0.02800	0.00000
IA07373 (EL916535053)	0.54333	0.00000	-1.86090	0.00000	0.04320	0.00000

Table 2.8.2
IRT Parameters for Polytomous Items
English Language Arts Grade 3

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA06373 (EL292656)	1.35420	0.00000	-1.26400	0.00000	0.23550	0.00000	-0.23550	0.00000	0.00000	0.00000
IA06683 (EL835251909)	0.75632	0.00000	0.86217	0.00000	2.54487	0.00000	-0.36313	0.00000	-2.18173	0.00000
IA06687 (EL835276438)	0.52257	0.00000	0.75740	0.00000	2.20530	0.00000	-2.20530	0.00000	0.00000	0.00000
IA07207A (EL912362165#SCORE_TRAIT_Conv)	0.93280	0.00847	0.75540	0.01329	2.02080	0.01617	-0.46820	0.02502	-1.55260	0.03511
IA07207D (EL912362165#SCORE_TRAIT_Ideadev)	0.69306	0.00788	1.96473	0.01896	1.76433	0.02277	0.65323	0.03432	-0.67878	0.04846
IA07210 (EL912365258)	0.65685	0.00000	-1.06045	0.00000	0.57355	0.00000	-0.57355	0.00000	0.00000	0.00000
IA07215 (EL912440150)	0.55209	0.00000	-1.16310	0.00000	0.54090	0.00000	-0.54090	0.00000	0.00000	0.00000
IA07374 (EL916535595)	0.54527	0.00000	-1.04020	0.00000	1.90540	0.00000	-1.90540	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA06683 (EL835251909)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07207A (EL912362165#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07207D (EL912362165#SCORE_TRAIT_Ideadev)	-1.73878	0.05610	0.00000	0.00000	n/a	n/a

Table 2.8.3
IRT Parameters for Dichotomous Items
English Language Arts Grade 4

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA03812 (EL800937934)	1.54421	0.00000	-0.10870	0.00000	0.20220	0.00000
IA03813 (EL800938150)	0.56479	0.00000	0.15890	0.00000	0.12200	0.00000
IA03815 (EL800939230)	0.54721	0.00000	-1.05410	0.00000	0.03000	0.00000
IA03817 (EL800940688)	1.10841	0.00000	-1.31480	0.00000	0.07770	0.00000
IA03818 (EL800940863)	1.30547	0.00000	-1.19330	0.00000	0.15620	0.00000
IA03819 (EL800941423)	0.67431	0.00000	-1.32730	0.00000	0.08860	0.00000
IA03820 (EL800941788)	0.82275	0.00000	-0.68260	0.00000	0.24340	0.00000
IA03821 (EL800943061)	1.26531	0.00000	-1.35460	0.00000	0.11390	0.00000
IA03851 (EL804278958)	0.80200	0.00000	-0.58430	0.00000	0.08700	0.00000
IA06481 (EL307617)	1.03710	0.00000	-1.25970	0.00000	0.10530	0.00000
IA06484 (EL307622)	1.07860	0.00000	-0.12170	0.00000	0.24350	0.00000
IA06485 (EL307624)	0.77666	0.00000	-0.99930	0.00000	0.12070	0.00000
IA06818 (EL909145470)	1.19459	0.00000	-2.11950	0.00000	0.10750	0.00000
IA06820 (EL909147325)	0.72181	0.00000	0.45440	0.00000	0.24660	0.00000
IA06824 (EL909150609)	0.66867	0.00000	-1.17800	0.00000	0.18120	0.00000
IA06825 (EL909151025)	0.72816	0.00000	0.54560	0.00000	0.17030	0.00000
IA06832 (EL909155188)	0.23439	0.00000	-2.46600	0.00000	0.06590	0.00000
IA06834 (EL909156962)	0.84503	0.00000	-0.15680	0.00000	0.28310	0.00000
IA06835 (EL909157777)	0.65309	0.00000	0.29570	0.00000	0.23770	0.00000
IA07170 (EL911976285)	0.68977	0.00000	0.82520	0.00000	0.17650	0.00000
IA07293 (EL914243985)	0.61317	0.00000	-1.08110	0.00000	0.02540	0.00000
IA07295 (EL914273301)	1.20741	0.00000	-0.70270	0.00000	0.20160	0.00000
IA07300 (EL914444197)	1.03469	0.00000	-0.33700	0.00000	0.19420	0.00000
IA07301 (EL914444576)	0.65344	0.00000	0.83030	0.00000	0.22830	0.00000

Table 2.8.4
IRT Parameters for Polytomous Items
English Language Arts Grade 4

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA03810 (EL800853520)	0.95608	0.00000	-1.30915	0.00000	0.37905	0.00000	-0.37905	0.00000	0.00000	0.00000
IA03811 (EL800937262)	0.31323	0.00000	-2.42025	0.00000	2.87685	0.00000	-2.87685	0.00000	0.00000	0.00000
IA03825 (EL800957624)	0.78289	0.00000	0.23893	0.00000	1.79953	0.00000	-0.06997	0.00000	-1.72957	0.00000
IA06815A (EL909132428#SCORE_TRAIT_Conv)	1.17925	0.01123	0.05967	0.00756	1.37937	0.01123	-0.17383	0.01401	-1.20553	0.01906
IA06815D (EL909132428#SCORE_TRAIT_Ideadev)	1.00470	0.01023	0.82495	0.00953	1.63415	0.01238	0.69745	0.01628	-0.42675	0.02189
IA06829 (EL909153399)	0.57343	0.00000	-0.70540	0.00000	0.48810	0.00000	-0.48810	0.00000	0.00000	0.00000
IA07263 (EL913040076)	0.59671	0.00000	-0.96545	0.00000	1.03375	0.00000	-1.03375	0.00000	0.00000	0.00000
IA07281 (EL913342853)	0.55996	0.00000	-0.34750	0.00000	1.37640	0.00000	-1.37640	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA03825 (EL800957624)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06815A (EL909132428#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06815D (EL909132428#SCORE_TRAIT_Ideadev)	-1.90485	0.03034	0.00000	0.00000	n/a	n/a

Table 2.8.5
IRT Parameters for Dichotomous Items
English Language Arts Grade 5

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA03926 (EL806707883)	0.69283	0.00000	-1.84870	0.00000	0.05720	0.00000
IA03927 (EL806708176)	0.61922	0.00000	1.04040	0.00000	0.20450	0.00000
IA03930 (EL806709102)	1.16149	0.00000	-0.01970	0.00000	0.08190	0.00000
IA03931 (EL806709302)	0.32246	0.00000	-1.07250	0.00000	0.00300	0.00000
IA03932 (EL806709547)	0.94315	0.00000	-2.38030	0.00000	0.03770	0.00000
IA03933 (EL806709790)	1.08724	0.00000	-1.41830	0.00000	0.16050	0.00000
IA03934 (EL806710293)	0.90647	0.00000	-0.33050	0.00000	0.16620	0.00000
IA03938 (EL806712207)	1.19624	0.00000	-1.74490	0.00000	0.21410	0.00000
IA04462 (EL827636609)	0.97078	0.00000	-0.55900	0.00000	0.27600	0.00000
IA06434 (EL302392)	1.22863	0.00000	-1.98830	0.00000	0.13670	0.00000
IA06435 (EL302393)	1.62169	0.00000	-1.80360	0.00000	0.12220	0.00000
IA06440 (EL302401)	0.86320	0.00000	-1.28290	0.00000	0.20450	0.00000
IA06441 (EL302402)	0.54885	0.00000	-1.45450	0.00000	0.00970	0.00000
IA06661 (EL834972269)	1.00841	0.00000	-0.61200	0.00000	0.15660	0.00000
IA06662 (EL834972500)	0.94674	0.00000	-1.57130	0.00000	0.02870	0.00000
IA06665 (EL834976700)	0.90018	0.00000	-1.18980	0.00000	0.17150	0.00000
IA06666 (EL834977047)	1.03804	0.00000	-1.51720	0.00000	0.11470	0.00000
IA06667 (EL834977330)	0.57266	0.00000	-1.11420	0.00000	0.00740	0.00000
IA06669 (EL834978026)	0.94250	0.00000	-1.00050	0.00000	0.14100	0.00000
IA06671 (EL834978663)	0.85103	0.00000	-1.04010	0.00000	0.13510	0.00000
IA06672 (EL834979059)	0.63310	0.00000	-1.81080	0.00000	0.03230	0.00000
IA06673 (EL834979779)	0.96673	0.00000	-1.15710	0.00000	0.14010	0.00000
IA07231 (EL912500446)	0.66226	0.00000	-0.49580	0.00000	0.14110	0.00000
IA07238 (EL912579695)	0.97978	0.00000	-1.33460	0.00000	0.06260	0.00000

Table 2.8.6
IRT Parameters for Polytomous Items
English Language Arts Grade 5

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA03925 (EL806706594)	0.80065	0.00000	-1.44365	0.00000	0.27605	0.00000	-0.27605	0.00000	0.00000	0.00000
IA03947A (EL806746086#SCORE_TRAIT_Conv)	1.21111	0.01005	0.28040	0.00766	1.73400	0.01115	-0.19660	0.01252	-1.53740	0.02058
IA03947D (EL806746086#SCORE_TRAIT_Ideadev)	1.19289	0.00982	1.19028	0.01164	2.41958	0.01384	0.68818	0.01541	-0.65533	0.02279
IA03950 (EL806756112)	0.64280	0.00000	-0.31675	0.00000	1.22185	0.00000	-1.22185	0.00000	0.00000	0.00000
IA06654A (EL834856783#SCORE_TRAIT_Conv)	1.17343	0.01023	0.13213	0.00753	1.39743	0.01077	-0.30137	0.01599	-1.09607	0.01759
IA06654D (EL834856783#SCORE_TRAIT_Ideadev)	1.01646	0.01041	1.02170	0.00886	0.98260	0.01444	0.64050	0.01811	-0.15420	0.02015
IA06655 (EL834950831)	0.79259	0.00000	-1.91300	0.00000	0.96530	0.00000	-0.96530	0.00000	0.00000	0.00000
IA06657 (EL834952362)	0.59882	0.00000	-0.48295	0.00000	0.70025	0.00000	-0.70025	0.00000	0.00000	0.00000
IA07243 (EL912584876)	0.78865	0.00000	-1.14610	0.00000	0.19940	0.00000	-0.19940	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA03947A (EL806746086#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA03947D (EL806746086#SCORE_TRAIT_Ideadev)	-2.45243	0.04195	0.00000	0.00000	n/a	n/a
IA06654A (EL834856783#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06654D (EL834856783#SCORE_TRAIT_Ideadev)	-1.46890	0.02502	0.00000	0.00000	n/a	n/a

Table 2.8.7
IRT Parameters for Dichotomous Items
English Language Arts Grade 6

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA06503 (EL308506)	0.56402	0.00000	0.55000	0.00000	0.07870	0.00000
IA06505 (EL308510)	0.82481	0.00000	-0.22060	0.00000	0.16090	0.00000
IA06506 (EL308512)	0.62563	0.00000	-1.61270	0.00000	0.05230	0.00000
IA06507 (EL308513)	0.93233	0.00000	0.04470	0.00000	0.31040	0.00000
IA06510 (EL308518)	1.14638	0.00000	-1.62360	0.00000	0.25400	0.00000
IA06712 (EL835402993)	0.42698	0.00000	-0.03700	0.00000	0.21070	0.00000
IA06715 (EL835415824)	0.68765	0.00000	-1.11870	0.00000	0.17610	0.00000
IA06716 (EL835417652)	0.48995	0.00000	-1.70580	0.00000	0.01340	0.00000
IA06717 (EL835419727)	0.94474	0.00000	-0.71160	0.00000	0.24740	0.00000
IA06719 (EL835420555)	0.66590	0.00000	-1.36500	0.00000	0.14270	0.00000
IA06722 (EL835421418)	0.97978	0.00000	-1.31620	0.00000	0.33630	0.00000
IA06723 (EL835421936)	0.37166	0.00000	-0.95470	0.00000	0.03110	0.00000
IA06725 (EL835422818)	0.53416	0.00000	-1.30540	0.00000	0.14390	0.00000
IA06789 (EL903544223)	0.69442	0.00000	-1.95000	0.00000	0.10970	0.00000
IA07271 (EL913137826)	0.65844	0.00000	-0.43310	0.00000	0.18740	0.00000
IA07274 (EL913146798)	0.55338	0.00000	-0.29710	0.00000	0.06830	0.00000
IA07275 (EL913147467)	0.93880	0.00000	-0.69460	0.00000	0.32050	0.00000
IA07276 (EL913177923)	0.63063	0.00000	-2.33890	0.00000	0.00900	0.00000
IA07278 (EL913179570)	0.44680	0.00000	-1.52580	0.00000	0.04080	0.00000
IA07367 (EL916473284)	0.80917	0.00000	0.50200	0.00000	0.12380	0.00000
IA07403 (EL917825386)	1.02081	0.00000	-0.41990	0.00000	0.23070	0.00000
IA07409 (EL917861668)	0.48907	0.00000	-2.56720	0.00000	0.01490	0.00000
IA07415 (EL918180282)	0.49212	0.00000	-0.60810	0.00000	0.21360	0.00000
IA07441 (EL920039686)	1.00952	0.00000	-2.06870	0.00000	0.21690	0.00000

Table 2.8.8
IRT Parameters for Polytomous Items
English Language Arts Grade 6

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA06711 (EL835401351)	0.49812	0.00000	-1.66635	0.00000	1.37265	0.00000	-1.37265	0.00000	0.00000	0.00000
IA06720 (EL835420875)	0.54062	0.00000	-0.79505	0.00000	1.14725	0.00000	-1.14725	0.00000	0.00000	0.00000
IA07087A (EL911525969#SCORE_TRAIT_Conv)	1.15032	0.00852	-0.10730	0.00566	1.51150	0.00963	-0.06410	0.01038	-1.44740	0.01354
IA07087D (EL911525969#SCORE_TRAIT_Ideadev)	1.07202	0.00782	0.95276	0.00854	3.27116	0.01346	1.26426	0.01248	-0.13964	0.01465
IA07267A (EL913132900#SCORE_TRAIT_Conv)	1.05603	0.01117	-0.18923	0.00943	1.64127	0.01550	-0.02613	0.01696	-1.61513	0.02320
IA07267D (EL913132900#SCORE_TRAIT_Ideadev)	1.05203	0.01076	1.11532	0.01059	3.25872	0.01747	1.27652	0.01763	-0.26668	0.02307
IA07268 (EL913133585)	0.55750	0.00000	-0.52555	0.00000	0.64155	0.00000	-0.64155	0.00000	0.00000	0.00000
IA07269 (EL913135249)	0.39906	0.00000	-1.80390	0.00000	0.45520	0.00000	-0.45520	0.00000	0.00000	0.00000
IA07365 (EL916444331)	0.59342	0.00000	-0.54095	0.00000	1.41425	0.00000	-1.41425	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA07087A (EL911525969#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07087D (EL911525969#SCORE_TRAIT_Ideadev)	-1.50604	0.01858	-2.88974	0.03593	0.00000	0.00000
IA07267A (EL913132900#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07267D (EL913132900#SCORE_TRAIT_Ideadev)	-1.53988	0.02478	-2.72868	0.04003	0.00000	0.00000

Table 2.8.9
IRT Parameters for Dichotomous Items
English Language Arts Grade 7

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA04337 (EL811653297)	0.79759	0.00000	-1.76150	0.00000	0.07500	0.00000
IA04338 (EL811653729)	0.45056	0.00000	-1.26350	0.00000	0.04510	0.00000
IA04340 (EL811659059)	0.85979	0.00000	-0.60050	0.00000	0.18390	0.00000
IA04342 (EL811661018)	0.41470	0.00000	-1.74630	0.00000	0.01930	0.00000
IA04348 (EL811720784)	0.60388	0.00000	-0.15710	0.00000	0.10860	0.00000
IA04349 (EL811721117)	0.83721	0.00000	0.30480	0.00000	0.30510	0.00000
IA04353 (EL811723366)	0.39830	0.00000	-1.86950	0.00000	0.00250	0.00000
IA04356 (EL811734832)	0.67643	0.00000	-1.66310	0.00000	0.02540	0.00000
IA04358 (EL811735509)	0.74239	0.00000	0.11520	0.00000	0.17670	0.00000
IA06539 (EL314056)	0.66878	0.00000	-1.05080	0.00000	0.17880	0.00000
IA06541 (EL314058)	1.20335	0.00000	-0.13100	0.00000	0.25800	0.00000
IA06544 (EL314063)	1.23251	0.00000	-0.81260	0.00000	0.23910	0.00000
IA06873 (EL909281464)	1.03186	0.00000	-1.31380	0.00000	0.30280	0.00000
IA06883 (EL909375770)	0.70200	0.00000	-0.25850	0.00000	0.10450	0.00000
IA06898 (EL909470766)	0.78230	0.00000	-1.88140	0.00000	0.06970	0.00000
IA06899 (EL909471269)	0.52357	0.00000	-0.30740	0.00000	0.23150	0.00000
IA06900 (EL909471961)	0.44356	0.00000	-1.82150	0.00000	0.01880	0.00000
IA06921 (EL909747660)	0.90441	0.00000	-1.41260	0.00000	0.15910	0.00000
IA06922 (EL909748887)	0.81264	0.00000	0.41900	0.00000	0.26340	0.00000
IA06929 (EL909752861)	0.83369	0.00000	-1.83580	0.00000	0.07900	0.00000
IA06937 (EL909764274)	0.46696	0.00000	-0.41160	0.00000	0.22020	0.00000
IA07084 (EL911458693)	0.56796	0.00000	-0.44940	0.00000	0.09450	0.00000
IA07089 (EL911550107)	0.52052	0.00000	-0.20660	0.00000	0.21370	0.00000
IA07217 (EL912448606)	0.50200	0.00000	-0.49540	0.00000	0.16690	0.00000
IA07218 (EL912450318)	1.33439	0.00000	0.42200	0.00000	0.26810	0.00000
IA07342 (EL916135715)	0.44832	0.00000	-0.24550	0.00000	0.10940	0.00000

Table 2.8.10
IRT Parameters for Polytomous Items
English Language Arts Grade 7

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA04341 (EL811660409)	0.61240	0.00000	-0.87865	0.00000	0.38885	0.00000	-0.38885	0.00000	0.00000	0.00000
IA04359 (EL811735935)	0.68730	0.00000	-0.71125	0.00000	1.64285	0.00000	-1.64285	0.00000	0.00000	0.00000
IA04362A (EL811753816#SCORE_TRAIT_Conv)	1.51311	0.01229	-0.33460	0.00490	1.28430	0.00871	-0.00240	0.00930	-1.28190	0.01123
IA04362D (EL811753816#SCORE_TRAIT_Ideadev)	1.46972	0.01141	0.67052	0.00546	2.50112	0.00969	1.00252	0.00977	-0.26708	0.01139
IA06924 (EL909749262)	0.56849	0.00000	-1.27275	0.00000	0.16035	0.00000	-0.16035	0.00000	0.00000	0.00000
IA06925A (EL909750218#SCORE_TRAIT_Conv)	1.35750	0.01088	-0.61847	0.00502	1.36943	0.01031	-0.07357	0.00987	-1.29587	0.00996
IA06925D (EL909750218#SCORE_TRAIT_Ideadev)	1.26725	0.00952	0.42786	0.00611	2.74536	0.01241	1.08046	0.01105	-0.07944	0.01063
IA07209 (EL912364723)	0.54145	0.00000	-0.38300	0.00000	1.07670	0.00000	-1.07670	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA04362A (EL811753816#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA04362D (EL811753816#SCORE_TRAIT_Ideadev)	-1.19818	0.01273	-2.03838	0.02035	0.00000	0.00000
IA06925A (EL909750218#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06925D (EL909750218#SCORE_TRAIT_Ideadev)	-1.21984	0.01232	-2.52654	0.02409	0.00000	0.00000

Table 2.8.11
IRT Parameters for Dichotomous Items
English Language Arts Grade 8

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA06511 (EL309393)	0.42916	0.00000	-0.11330	0.00000	0.05990	0.00000
IA06513 (EL309397)	0.47143	0.00000	-1.46000	0.00000	0.05610	0.00000
IA06514 (EL309401)	0.73157	0.00000	-0.57890	0.00000	0.17500	0.00000
IA06732 (EL836438880)	0.86508	0.00000	-1.43520	0.00000	0.24020	0.00000
IA06737 (EL836456432)	0.41752	0.00000	-1.79290	0.00000	0.04850	0.00000
IA06740 (EL836459385)	0.63539	0.00000	-1.96190	0.00000	0.03330	0.00000
IA06741 (EL836461762)	0.71276	0.00000	-1.27730	0.00000	0.12220	0.00000
IA06742 (EL836463708)	0.33880	0.00000	0.03010	0.00000	0.04440	0.00000
IA06743 (EL836464683)	0.83116	0.00000	-1.86780	0.00000	0.06000	0.00000
IA06753 (EL836547482)	0.76226	0.00000	-2.25930	0.00000	0.01780	0.00000
IA06768 (EL900353074)	0.87801	0.00000	-1.52930	0.00000	0.18250	0.00000
IA06801 (EL904652080)	0.28983	0.00000	-2.60500	0.00000	0.01900	0.00000
IA07092 (EL911558166)	0.43422	0.00000	-2.72540	0.00000	0.02270	0.00000
IA07124 (EL911657712)	0.38319	0.00000	-2.11950	0.00000	0.01380	0.00000
IA07134 (EL911763814)	0.82628	0.00000	-1.99110	0.00000	0.06200	0.00000
IA07135 (EL911764401)	0.81793	0.00000	-1.09580	0.00000	0.28020	0.00000
IA07140 (EL911862506)	0.80123	0.00000	-2.67850	0.00000	0.06910	0.00000
IA07167 (EL911946437)	0.80964	0.00000	-1.16370	0.00000	0.18250	0.00000
IA07284 (EL913447634)	0.42845	0.00000	-0.44740	0.00000	0.21880	0.00000
IA07288 (EL913755133)	0.69053	0.00000	-1.79360	0.00000	0.20990	0.00000
IA07296 (EL914324180)	0.31770	0.00000	0.42600	0.00000	0.27140	0.00000
IA07299 (EL914376798)	0.30864	0.00000	0.42260	0.00000	0.24990	0.00000
IA07393 (EL917559756)	0.79953	0.00000	-0.75140	0.00000	0.21790	0.00000
IA07429 (EL919039373)	0.54156	0.00000	-0.16030	0.00000	0.25700	0.00000

Table 2.8.12
IRT Parameters for Polytomous Items
English Language Arts Grade 8

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA06728A (EL836248600#SCORE_TRAIT_Conv)	1.74633	0.01246	-0.66283	0.00347	1.01787	0.00737	0.06687	0.00650	-1.08473	0.00693
IA06728D (EL836248600#SCORE_TRAIT_Ideadev)	1.67378	0.01099	0.36480	0.00408	2.19020	0.00819	1.10050	0.00709	-0.01250	0.00726
IA06735 (EL836448634)	0.52728	0.00000	-1.19760	0.00000	0.94040	0.00000	-0.94040	0.00000	0.00000	0.00000
IA06736 (EL836455548)	0.63768	0.00000	-1.03750	0.00000	1.17080	0.00000	-1.17080	0.00000	0.00000	0.00000
IA07125 (EL911659849)	0.81258	0.00000	-2.45295	0.00000	0.21645	0.00000	-0.21645	0.00000	0.00000	0.00000
IA07136A (EL911774388#SCORE_TRAIT_Conv)	1.78789	0.01752	-0.57950	0.00579	1.09140	0.01112	-0.05460	0.01121	-1.03680	0.01234
IA07136D (EL911774388#SCORE_TRAIT_Ideadev)	1.70623	0.01587	0.38846	0.00493	2.16676	0.01151	0.94926	0.01115	-0.07774	0.01224
IA07285 (EL913448483)	0.72205	0.00000	-0.65775	0.00000	1.23045	0.00000	-1.23045	0.00000	0.00000	0.00000
IA07289 (EL913761016)	0.51981	0.00000	-1.65520	0.00000	1.49860	0.00000	-1.49860	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA06728A (EL836248600#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06728D (EL836248600#SCORE_TRAIT_Ideadev)	-1.07840	0.00836	-2.19980	0.01613	0.00000	0.00000
IA07136A (EL911774388#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07136D (EL911774388#SCORE_TRAIT_Ideadev)	-1.08584	0.00957	-1.95244	0.01522	0.00000	0.00000

Table 2.8.13
IRT Parameters for Dichotomous Items
English Language Arts Grade 10

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA06309 (EL012153811)	0.61129	0.00000	-1.69420	0.00000	0.08260	0.00000
IA06310 (EL012157583)	0.60694	0.00000	-0.71210	0.00000	0.08790	0.00000
IA06314 (EL012733933)	0.85279	0.00000	-0.83640	0.00000	0.27760	0.00000
IA06320 (EL013253097)	0.54932	0.00000	-1.76810	0.00000	0.06190	0.00000
IA06321 (EL013255897)	1.06831	0.00000	0.10830	0.00000	0.36200	0.00000
IA06323 (EL013257840)	0.52493	0.00000	-3.17880	0.00000	0.03190	0.00000
IA06324 (EL013258596)	0.96379	0.00000	-0.36760	0.00000	0.27680	0.00000
IA06327 (EL013353391)	0.56138	0.00000	-0.10290	0.00000	0.31700	0.00000
IA06340 (EL015041902)	0.79735	0.00000	-1.76050	0.00000	0.20480	0.00000
IA06917 (EL909729691)	1.10735	0.00000	-1.23380	0.00000	0.17590	0.00000
IA06930 (EL909753277)	0.80265	0.00000	-0.86800	0.00000	0.16700	0.00000
IA06933 (EL909754342)	1.46531	0.00000	-1.37260	0.00000	0.22070	0.00000
IA06936 (EL909755882)	0.84109	0.00000	-1.33360	0.00000	0.10550	0.00000
IA06984 (EL910540421)	0.52163	0.00000	-1.49470	0.00000	0.17630	0.00000
IA06990 (EL910641090)	1.69559	0.00000	-1.21380	0.00000	0.23710	0.00000
IA07008 (EL910747872)	0.71652	0.00000	-1.26400	0.00000	0.01410	0.00000
IA07035 (EL910857457)	0.90970	0.00000	-2.01080	0.00000	0.07720	0.00000
IA07044 (EL910962538)	0.89277	0.00000	-2.19500	0.00000	0.02070	0.00000
IA07046 (EL911153175)	0.26531	0.00000	-0.14790	0.00000	0.02890	0.00000
IA07055 (EL911243156)	1.00088	0.00000	-1.84970	0.00000	0.13520	0.00000
IA07056 (EL911243823)	0.47460	0.00000	-2.30180	0.00000	0.01040	0.00000

Table 2.8.14
IRT Parameters for Polytomous Items
English Language Arts Grade 10

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA06311 (EL012160579)	0.55791	0.00000	-0.82870	0.00000	1.09490	0.00000	-1.09490	0.00000	0.00000	0.00000
IA06315A (EL013138637#SCORE_TRAIT_Conv)	3.03804	0.02992	-0.99407	0.00414	0.74503	0.00822	-0.00647	0.00788	-0.73857	0.00874
IA06315D (EL013138637#SCORE_TRAIT_Ideadev)	2.58366	0.02222	-0.09594	0.00388	1.56756	0.00862	0.87676	0.00862	0.14506	0.00962
IA06338 (EL014953733)	0.58513	0.00000	-1.30090	0.00000	1.52610	0.00000	-1.52610	0.00000	0.00000	0.00000
IA06343 (EL019560241)	0.46132	0.00000	-0.66210	0.00000	0.90070	0.00000	-0.90070	0.00000	0.00000	0.00000
IA06913 (EL909560185)	0.77096	0.00000	-2.44225	0.00000	0.85685	0.00000	-0.85685	0.00000	0.00000	0.00000
IA06918 (EL909731553)	0.75450	0.00000	-0.89825	0.00000	0.38755	0.00000	-0.38755	0.00000	0.00000	0.00000
IA06983A (EL910467723#SCORE_TRAIT_Conv)	2.24915	0.02328	-1.23397	0.00712	0.80743	0.01482	-0.01197	0.01465	-0.79547	0.01319
IA06983D (EL910467723#SCORE_TRAIT_Ideadev)	1.97090	0.01799	-0.34194	0.00540	1.73976	0.01566	0.92046	0.01538	0.10036	0.01362
IA07039 (EL910860957)	0.84198	0.00000	-1.18835	0.00000	0.10755	0.00000	-0.10755	0.00000	0.00000	0.00000
IA07041 (EL910938823)	0.74139	0.00000	-2.19440	0.00000	1.11300	0.00000	-1.11300	0.00000	0.00000	0.00000

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA06315A (EL013138637#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06315D (EL013138637#SCORE_TRAIT_Ideadev)	-0.55004	0.00543	-2.03934	0.01347	0.00000	0.00000
IA06983A (EL910467723#SCORE_TRAIT_Conv)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA06983D (EL910467723#SCORE_TRAIT_Ideadev)	-0.70344	0.00703	-2.05714	0.01262	0.00000	0.00000

Table 2.8.15 IRT Parameters for Dichotomous Items—Mathematics Grade 3

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA00928 (MA306346)	1.24495	0.01662	-0.11415	0.00985	0.04240	0.00350
IA02348 (MA303411)	1.16326	0.02326	0.45257	0.01306	0.20110	0.00460
IA02506 (MA310835)	1.26178	0.01822	-0.51141	0.01273	0.09020	0.00590
IA04623 (MA303418)	0.93350	0.01492	-0.26878	0.01627	0.07170	0.00670
IA04682 (MA310877)	0.64882	0.02114	1.09335	0.02457	0.21820	0.00710
IA04818 (MA735579087)	1.12444	0.01896	0.32561	0.01162	0.10210	0.00420
IA04840 (MA735732140)	0.82409	0.01731	-1.40090	0.04516	0.14470	0.02180
IA07796 (MA900371208)	0.75674	0.01901	0.42911	0.02302	0.21200	0.00770
IA07803 (MA900374280)	1.17511	0.02310	-0.65486	0.02192	0.31480	0.00930
IA07804 (MA900374565)	0.71563	0.01482	-0.68386	0.03553	0.11260	0.01430
IA07812 (MA900379786)	1.54068	0.03973	1.13796	0.01195	0.17950	0.00280
IA07826 (MA900445883)	0.99293	0.01769	-0.00468	0.01638	0.17260	0.00640
IA07850 (MA900571833)	0.99824	0.02114	-0.68774	0.02756	0.29090	0.01120
IA07851 (MA900574704)	0.77830	0.01907	-1.31778	0.05656	0.28280	0.02250
IA08098 (MA902576979)	0.98316	0.02353	0.80058	0.01516	0.20340	0.00470
IA10310 (MA264568)	0.85441	0.01625	-1.01925	0.03520	0.22800	0.01500
IA00929 (MA306355)	0.82791	0.01020	-1.59848	0.01494	0.00000	0.00000
IA02686 (MA703080328)	0.68079	0.00760	0.84618	0.01284	0.00000	0.00000
IA04636 (MA306288)	1.20193	0.01179	-0.01830	0.00764	0.00000	0.00000
IA04638 (MA306339)	0.73544	0.00813	-0.47688	0.01029	0.00000	0.00000
IA04684 (MA310895)	0.51057	0.00653	0.18349	0.01240	0.00000	0.00000
IA04832 (MA735659609)	0.70299	0.00882	-1.60568	0.01638	0.00000	0.00000
IA04833 (MA735662802)	0.92165	0.01009	-1.17897	0.01140	0.00000	0.00000
IA04854 (MA735767424)	0.76917	0.00834	-0.58491	0.01018	0.00000	0.00000
IA04864 (MA736029388)	0.87210	0.00914	-0.68674	0.00963	0.00000	0.00000
IA07757 (MA834448527)	0.73050	0.01004	-2.33268	0.02358	0.00000	0.00000
IA07798 (MA900371363)	0.45469	0.00627	0.52441	0.01505	0.00000	0.00000
IA07809 (MA900376906)	0.90237	0.00940	-0.48230	0.00908	0.00000	0.00000
IA07818 (MA900430931)	0.66050	0.00797	0.82504	0.01306	0.00000	0.00000
IA07822 (MA900437563)	0.79594	0.00876	-0.12146	0.00930	0.00000	0.00000
IA07825 (MA900440136)	0.57627	0.00690	-0.14703	0.01107	0.00000	0.00000
IA07854 (MA900578884)	0.64133	0.00744	0.07656	0.01052	0.00000	0.00000
IA07998 (MA901139069)	0.84464	0.01041	-1.35829	0.01339	0.00000	0.00000
IA08064 (MA902238195)	0.38501	0.00611	-1.67984	0.02657	0.00000	0.00000
IA08224 (MA905135964)	0.28011	0.00563	1.56134	0.03664	0.00000	0.00000
IA10305 (MA260575)	0.72206	0.00818	-1.16115	0.01339	0.00000	0.00000

Table 2.8.16
IRT Parameters for Polytomous Items
Mathematics Grade 3

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA02172 (MA286752A)	1.00536	0.00850	0.73472	0.00693	1.21624	0.01099	0.10028	0.01151	-1.31653	0.01799
IA04859 (MA735951978)	1.14010	0.00924	0.07870	0.00546	1.15573	0.01078	-0.05022	0.00957	-1.10552	0.01224
IA07567 (MA297478A)	0.83604	0.00791	-1.23063	0.00766	0.97000	0.01930	-0.08054	0.01383	-0.88946	0.01188
IA07572 (MA300753A)	1.08115	0.00882	-0.46009	0.00521	0.85813	0.01164	-0.03070	0.00961	-0.82743	0.00990

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA02172 (MA286752A)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA04859 (MA735951978)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07567 (MA297478A)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA07572 (MA300753A)	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.8.17 IRT Parameters for Dichotomous Items—Mathematics Grade 4

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA00990 (MA307692)	0.37768	0.01319	-0.91396	0.13430	0.07260	0.03740
IA02070 (MA247687)	0.85464	0.02349	-1.80672	0.07853	0.32680	0.03650
IA02173 (MA286765)	1.10226	0.02173	-0.33405	0.02098	0.27100	0.00910
IA04660 (MA307310)	1.00808	0.01641	-0.28274	0.01703	0.11860	0.00780
IA07867 (MA900662785)	1.31818	0.02100	-0.22260	0.01278	0.13100	0.00610
IA07918 (MA900751683)	1.09581	0.02072	0.42544	0.01340	0.17400	0.00520
IA07920 (MA900754381)	1.11952	0.01664	0.29789	0.01080	0.06840	0.00400
IA07959 (MA900843428)	1.46093	0.01998	-0.42234	0.01101	0.09910	0.00540
IA07961 (MA900845776)	0.49530	0.01064	-1.83030	0.08922	0.04130	0.03600
IA10296 (MA227395)	0.74093	0.01970	0.54977	0.02410	0.19930	0.00850
IA10356 (MA307326)	0.93518	0.02456	-1.25112	0.05266	0.38750	0.02150
IA00783 (MA227864)	0.52048	0.00724	-1.49687	0.02109	0.00000	0.00000
IA00814 (MA279790)	0.74971	0.00911	-1.40859	0.01548	0.00000	0.00000
IA01084 (MA623833763)	0.97718	0.01013	-0.28575	0.00831	0.00000	0.00000
IA02739 (MA704650142)	0.75288	0.00838	-0.50990	0.01008	0.00000	0.00000
IA02741 (MA704652242)	0.34887	0.00594	-0.09432	0.01610	0.00000	0.00000
IA02900 (MA714230904)	0.69645	0.00849	0.83936	0.01236	0.00000	0.00000
IA04572 (MA294263)	0.84994	0.01036	1.06715	0.01205	0.00000	0.00000
IA04652 (MA307066)	0.65343	0.00775	-0.03127	0.01018	0.00000	0.00000
IA04926 (MA800607912)	1.03066	0.01109	-0.84426	0.00956	0.00000	0.00000
IA04929 (MA800633803)	0.69101	0.00792	-0.56174	0.01091	0.00000	0.00000
IA04956 (MA800767155)	1.04408	0.01075	-0.51302	0.00841	0.00000	0.00000
IA07901 (MA900740880)	0.87830	0.00911	-0.09682	0.00852	0.00000	0.00000
IA07910 (MA900749728)	0.64540	0.00764	1.10236	0.01433	0.00000	0.00000
IA07915 (MA900751271)	0.54012	0.00707	-1.08358	0.01652	0.00000	0.00000
IA07922 (MA900755205)	1.03513	0.01013	0.17771	0.00800	0.00000	0.00000
IA07944 (MA900775955)	0.79250	0.00866	-0.57815	0.01008	0.00000	0.00000
IA07958 (MA900842465)	1.01612	0.01047	-0.11468	0.00800	0.00000	0.00000
IA08109 (MA903134963)	1.06021	0.01070	-0.35462	0.00810	0.00000	0.00000
IA08132 (MA903537924)	0.83562	0.00940	-0.80957	0.01059	0.00000	0.00000
IA08161 (MA903673001)	1.10798	0.01098	0.17584	0.00779	0.00000	0.00000
IA08181 (MA903757124)	0.92352	0.00928	0.63848	0.00945	0.00000	0.00000
IA08187 (MA903869200)	0.69882	0.00792	0.16556	0.00987	0.00000	0.00000
IA08237 (MA907358909)	1.16344	0.01223	0.54957	0.00810	0.00000	0.00000

Table 2.8.18
IRT Parameters for Polytomous Items
Mathematics Grade 4

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA05041 (MA803738583)	1.07787	0.00951	0.74697	0.00762	0.93249	0.01089	-0.93249	0.01514	0.00000	0.00000
IA07590 (MA302496A)	1.16412	0.00889	0.01581	0.00509	1.64595	0.01317	0.38798	0.00930	-0.44828	0.00930
IA07661 (MA311579A)	0.97831	0.00804	-0.81035	0.00552	1.15976	0.01633	0.29120	0.01186	-0.29317	0.01015
IA07912 (MA900750814)	0.94197	0.00764	-1.18604	0.00649	1.37601	0.01969	0.57165	0.01452	-0.35144	0.01121
IA08105 (MA903053494)	0.93512	0.00821	-0.62369	0.00846	1.18832	0.01655	-1.18832	0.01245	0.00000	0.00000
IA08147 (MA903574399)	1.30330	0.00985	0.03967	0.00423	1.11089	0.01007	0.44508	0.00850	-0.38183	0.00850

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA07590 (MA302496A)	-1.58565	0.01308	0.00000	0.00000	n/a	n/a
IA07661 (MA311579A)	-1.15778	0.00998	0.00000	0.00000	n/a	n/a
IA07912 (MA900750814)	-1.59622	0.01087	0.00000	0.00000	n/a	n/a
IA08147 (MA903574399)	-1.17414	0.01054	0.00000	0.00000	n/a	n/a

Table 2.8.19 IRT Parameters for Dichotomous Items—Mathematics Grade 5

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA00809 (MA272788)	0.58972	0.00955	-2.16726	0.05580	0.01760	0.02790
IA00815 (MA280507)	1.66649	0.04096	0.92199	0.01110	0.24880	0.00300
IA01023 (MA311301)	1.34297	0.04137	1.33652	0.01493	0.23370	0.00300
IA02549 (MA311287)	1.06757	0.02022	-0.66850	0.02341	0.22410	0.01130
IA04602 (MA301145)	1.24323	0.01882	-0.81410	0.01594	0.08320	0.00900
IA04613 (MA301831)	1.32392	0.02814	0.82593	0.01120	0.14630	0.00320
IA05000 (MA801650702)	1.30090	0.02185	-0.32884	0.01372	0.17710	0.00670
IA05004 (MA801654509)	0.91679	0.01625	-0.18192	0.01776	0.08160	0.00800
IA05009 (MA801668672)	1.28523	0.02540	-0.94649	0.02371	0.29090	0.01260
IA07868 (MA900664816)	0.87933	0.01620	-1.05840	0.03199	0.05470	0.01750
IA07969 (MA900941108)	1.29875	0.02977	0.49213	0.01382	0.32420	0.00460
IA07984 (MA901081374)	1.24148	0.02767	1.49242	0.01483	0.05280	0.00170
IA08193 (MA904134029)	1.48169	0.02866	0.24763	0.01191	0.29230	0.00450
IA10323 (MA282154)	1.46508	0.02243	-0.45124	0.01130	0.09360	0.00580
IA10340 (MA301593)	1.38020	0.02849	-0.05710	0.01443	0.32140	0.00590
IA10346 (MA303749)	1.27661	0.02395	0.49243	0.01100	0.15870	0.00390
IA10374 (MA311307)	1.35392	0.02645	-0.43803	0.01645	0.27810	0.00780
IA01146 (MA624345222)	0.93695	0.00938	-0.00826	0.00807	0.00000	0.00000
IA02917 (MA715102107)	0.61791	0.01136	-2.70247	0.03723	0.00000	0.00000
IA02925 (MA715102342)	1.30865	0.01270	-0.28051	0.00706	0.00000	0.00000
IA04630 (MA303755)	0.66277	0.00775	-0.08122	0.00989	0.00000	0.00000
IA04978 (MA801176573)	0.94505	0.00985	-0.41835	0.00817	0.00000	0.00000
IA05101 (MA804577344)	0.92850	0.00950	-0.58666	0.00858	0.00000	0.00000
IA05102 (MA804577928)	0.66219	0.00775	-0.15256	0.00989	0.00000	0.00000
IA05105 (MA804583343)	0.83150	0.00862	-0.22945	0.00848	0.00000	0.00000
IA07975 (MA900983475)	1.55877	0.01550	-0.10604	0.00666	0.00000	0.00000
IA08154 (MA903581246)	0.67320	0.00763	0.42200	0.01100	0.00000	0.00000
IA08176 (MA903733887)	1.04759	0.01055	-0.48878	0.00797	0.00000	0.00000
IA08209 (MA904333760)	1.08575	0.01124	0.51342	0.00858	0.00000	0.00000
IA08210 (MA904338797)	1.08825	0.01130	-0.63207	0.00817	0.00000	0.00000
IA08241 (MA908431377)	0.44371	0.00670	-0.99331	0.01655	0.00000	0.00000
IA10293 (MA207523)	1.05178	0.01055	-0.38051	0.00797	0.00000	0.00000
IA10325 (MA287421)	0.95565	0.01171	-1.37404	0.01282	0.00000	0.00000
IA10368 (MA310322)	0.77306	0.00880	-1.12671	0.01191	0.00000	0.00000

Table 2.8.20
IRT Parameters for Polytomous Items
Mathematics Grade 5

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA00902 (MA301608)	0.92233	0.00705	0.22834	0.00575	1.94444	0.01432	0.23024	0.00975	-0.69204	0.01162
IA02251 (MA298005)	0.89028	0.00746	-0.55288	0.00614	1.55828	0.01662	1.01429	0.01349	-0.90193	0.01071
IA05025 (MA802310847)	0.99422	0.00827	-0.71153	0.00526	1.13374	0.01498	0.37068	0.01138	-0.26110	0.00963
IA05097 (MA804575779)	0.79048	0.00746	-0.47228	0.00810	0.91275	0.01525	-0.91275	0.01271	0.00000	0.00000
IA05104 (MA804580860)	0.89232	0.00769	0.51216	0.00826	1.06946	0.01191	-1.06946	0.01637	0.00000	0.00000
IA07982 (MA901073764)	1.20000	0.00903	0.00637	0.00425	1.12763	0.01003	0.41796	0.00842	-0.49172	0.00886

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA00902 (MA301608)	-1.48265	0.01507	0.00000	0.00000	n/a	n/a
IA02251 (MA298005)	-1.67063	0.01349	0.00000	0.00000	n/a	n/a
IA05025 (MA802310847)	-1.24332	0.01032	0.00000	0.00000	n/a	n/a
IA07982 (MA901073764)	-1.05387	0.01058	0.00000	0.00000	n/a	n/a

Table 2.8.21 IRT Parameters for Dichotomous Items—Mathematics Grade 6

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA00898 (MA301497)	1.14925	0.02596	0.20736	0.01707	0.34030	0.00620
IA02125 (MA272301)	1.36139	0.02799	0.79493	0.01141	0.22270	0.00350
IA02273 (MA298153)	0.84794	0.01542	-0.89101	0.03091	0.07720	0.01580
IA04511 (MA272299)	0.84625	0.01304	-1.32444	0.03172	0.01620	0.01840
IA04571 (MA293850)	0.90079	0.01758	-0.25637	0.02293	0.17710	0.00980
IA04590 (MA298171)	0.89258	0.01746	-0.27991	0.02313	0.15260	0.01020
IA04723 (MA311654)	0.69667	0.01845	-0.22163	0.04121	0.24580	0.01430
IA04894 (MA736452061)	1.07888	0.01944	0.74200	0.01121	0.08460	0.00350
IA05139 (MA805276878)	0.41183	0.02270	1.17624	0.06465	0.22290	0.01720
IA07769 (MA900281418)	0.81907	0.01339	-0.77071	0.02626	0.03900	0.01290
IA07831 (MA900470149)	0.63288	0.01781	-1.11576	0.07889	0.21700	0.03020
IA07833 (MA900540139)	1.37967	0.02782	0.85453	0.01040	0.12440	0.00300
IA07834 (MA900541677)	1.54100	0.03259	1.00695	0.01040	0.13270	0.00260
IA08238 (MA908142878)	1.31029	0.03137	0.99947	0.01273	0.25170	0.00350
IA10309 (MA264407)	0.71210	0.01216	-0.20304	0.02222	0.01220	0.00930
IA02690 (MA703149118)	1.20326	0.01147	-0.01092	0.00707	0.00000	0.00000
IA02695 (MA703177677)	0.94636	0.01030	-1.00657	0.01040	0.00000	0.00000
IA02696 (MA703178216)	0.48639	0.00658	0.48695	0.01364	0.00000	0.00000
IA02697 (MA703178717)	0.76657	0.00809	0.10544	0.00899	0.00000	0.00000
IA02822 (MA713648266)	0.93478	0.01001	0.59493	0.00929	0.00000	0.00000
IA02905 (MA714280042)	0.62759	0.00722	1.16159	0.01535	0.00000	0.00000
IA04628 (MA303713)	0.96911	0.01094	-1.21394	0.01101	0.00000	0.00000
IA04726 (MA311664)	1.23102	0.01251	0.51301	0.00778	0.00000	0.00000
IA04881 (MA736363428)	0.76698	0.00850	-0.87505	0.01101	0.00000	0.00000
IA04883 (MA736365457)	0.58661	0.00803	-1.41929	0.01737	0.00000	0.00000
IA05127 (MA805104699)	1.22363	0.01286	0.60736	0.00808	0.00000	0.00000
IA07693 (MA736481231)	1.14680	0.01117	-0.20860	0.00717	0.00000	0.00000
IA07695 (MA736510525)	0.95055	0.01007	0.37473	0.00838	0.00000	0.00000
IA07744 (MA805166085)	0.31231	0.00646	2.14431	0.04556	0.00000	0.00000
IA07821 (MA900437517)	0.64720	0.00745	0.43635	0.01081	0.00000	0.00000
IA07828 (MA900454764)	1.06753	0.01152	-0.91788	0.00899	0.00000	0.00000
IA07830 (MA900462230)	0.99996	0.01024	-0.75677	0.00879	0.00000	0.00000
IA07932 (MA900763184)	1.01783	0.01042	-0.62364	0.00828	0.00000	0.00000
IA10338 (MA301231)	0.94886	0.00960	-0.03102	0.00788	0.00000	0.00000

Table 2.8.22
IRT Parameters for Polytomous Items
Mathematics Grade 6

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA02448 (MA307234)	1.14704	0.00867	-0.45688	0.00461	1.38938	0.01363	0.21899	0.00904	-0.57484	0.00853
IA02700 (MA703181586)	0.84893	0.00739	0.28281	0.00756	0.98433	0.01198	-0.98433	0.01411	0.00000	0.00000
IA02706 (MA703253363)	1.29161	0.00978	0.46655	0.00400	0.86201	0.00804	0.19666	0.00795	-0.22283	0.00875
IA07773 (MA900283851)	1.09186	0.00920	-0.72122	0.00710	0.97120	0.01396	-0.97120	0.01039	0.00000	0.00000
IA07780 (MA900337563)	1.21577	0.00890	0.31791	0.00459	1.43660	0.01010	0.20793	0.00835	-0.34682	0.00921
IA08063 (MA902139605)	1.27863	0.00925	-0.38001	0.00547	1.98978	0.01658	0.58777	0.00984	-0.76131	0.00902

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA02448 (MA307234)	-1.03353	0.00922	0.00000	0.00000	n/a	n/a
IA02706 (MA703253363)	-0.83585	0.01077	0.00000	0.00000	n/a	n/a
IA07780 (MA900337563)	-1.29772	0.01287	0.00000	0.00000	n/a	n/a
IA08063 (MA902139605)	-1.81625	0.01202	0.00000	0.00000	n/a	n/a

Table 2.8.23 IRT Parameters for Dichotomous Items—Mathematics Grade 7

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA02088 (MA259184)	1.36585	0.02681	-1.17005	0.02368	0.26850	0.01380
IA02278 (MA298208)	0.76839	0.01458	0.25586	0.01873	0.09170	0.00690
IA04540 (MA282220)	0.59636	0.01556	-0.42706	0.05167	0.17040	0.01770
IA04591 (MA298183)	0.59729	0.01928	0.60011	0.03649	0.27150	0.01030
IA04626 (MA303697)	1.59795	0.03173	0.88118	0.01033	0.19080	0.00270
IA04648 (MA306632)	0.83289	0.02015	0.88022	0.01722	0.18850	0.00520
IA04691 (MA311107)	1.71428	0.04609	1.07646	0.01227	0.33080	0.00280
IA05116 (MA804677297)	1.40736	0.03714	1.55312	0.01410	0.13830	0.00210
IA07720 (MA801363142)	0.81978	0.02015	0.94351	0.01733	0.18410	0.00510
IA07725 (MA801653090)	0.77806	0.02294	0.57805	0.02594	0.34020	0.00740
IA07840 (MA900554929)	1.02283	0.01698	-0.06450	0.01475	0.11760	0.00620
IA07841 (MA900556478)	1.78118	0.03588	0.79840	0.00969	0.19560	0.00260
IA07844 (MA900559852)	1.39277	0.03217	0.84103	0.01281	0.29910	0.00340
IA08110 (MA903153837)	1.62821	0.04320	1.12404	0.01195	0.27610	0.00280
IA08196 (MA904158907)	0.48332	0.01212	-0.65226	0.06674	0.03870	0.02290
IA10294 (MA208377)	1.12774	0.02015	-1.82326	0.03789	0.07170	0.02950
IA10295 (MA219513)	1.02715	0.01595	-1.42927	0.02885	0.05270	0.01880
IA10299 (MA250531)	1.41866	0.03282	0.58052	0.01313	0.32750	0.00390
IA10352 (MA306487)	0.87003	0.02081	0.55350	0.01927	0.25810	0.00610
IA00951 (MA306625)	1.11873	0.01207	1.30392	0.01163	0.00000	0.00000
IA01102 (MA624047703)	0.79526	0.00803	0.09729	0.00883	0.00000	0.00000
IA02707 (MA703857670)	1.12053	0.01174	-1.53519	0.01130	0.00000	0.00000
IA02708 (MA703872935)	0.84370	0.00879	-0.68284	0.00915	0.00000	0.00000
IA02877 (MA713848070)	0.98477	0.00972	0.42648	0.00861	0.00000	0.00000
IA04733 (MA314790)	1.15925	0.01256	0.98625	0.00980	0.00000	0.00000
IA05090 (MA804458974)	0.81989	0.00797	0.38073	0.00937	0.00000	0.00000
IA07838 (MA900553374)	1.18181	0.01174	0.74985	0.00872	0.00000	0.00000
IA07900 (MA900740124)	1.01316	0.00994	0.45630	0.00850	0.00000	0.00000
IA07903 (MA900741988)	1.02753	0.00923	0.65103	0.00937	0.00000	0.00000
IA07955 (MA900831542)	0.78423	0.00825	-0.65022	0.00926	0.00000	0.00000
IA08111 (MA903155316)	0.96576	0.00967	-0.66712	0.00840	0.00000	0.00000
IA08202 (MA904222253)	0.80198	0.00808	-0.07667	0.00872	0.00000	0.00000
IA10353 (MA306506)	0.58746	0.00792	1.46528	0.01938	0.00000	0.00000
IA10354 (MA306559)	1.28060	0.01322	1.14794	0.01012	0.00000	0.00000

Table 2.8.24
IRT Parameters for Polytomous Items
Mathematics Grade 7

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA02888 (MA713849179)	0.83901	0.00721	0.65728	0.00793	0.89466	0.01155	-0.89466	0.01562	0.00000	0.00000
IA02958 (MA717236235)	1.37524	0.00978	0.09538	0.00404	1.13959	0.00893	0.37120	0.00789	-0.34025	0.00836
IA04642 (MA306566)	1.40768	0.01038	0.57966	0.00429	0.94547	0.00811	0.41778	0.00802	-0.24856	0.00914
IA05037 (MA802914027)	1.28901	0.00912	-0.07191	0.00417	1.10934	0.00986	0.59349	0.00852	-0.66373	0.00899
IA07907 (MA900745156)	1.12370	0.00901	0.39090	0.00611	0.65079	0.00954	-0.65079	0.01155	0.00000	0.00000
IA07967 (MA900936469)	1.56234	0.01120	0.04788	0.00369	1.01178	0.00839	0.26245	0.00753	-0.30443	0.00782

Item ID	Parameters and Measures of Standard Error						
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)	
IA02958 (MA717236235)	-1.17054	0.01070	0.00000	0.00000	n/a	n/a	
IA04642 (MA306566)	-1.11470	0.01239	0.00000	0.00000	n/a	n/a	
IA05037 (MA802914027)	-1.03910	0.00986	0.00000	0.00000	n/a	n/a	
IA07967 (MA900936469)	-0.96980	0.00917	0.00000	0.00000	n/a	n/a	

Table 2.8.25 IRT Parameters for Dichotomous Items—Mathematics Grade 8

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA00982 (MA307538)	0.55483	0.01273	-0.25619	0.04205	0.05490	0.01520
IA02325 (MA301689)	1.14109	0.02437	0.67004	0.01270	0.21320	0.00400
IA02563 (MA311428)	0.91432	0.01511	-0.13755	0.01625	0.08220	0.00700
IA04502 (MA259251)	0.67452	0.01470	-0.03243	0.02753	0.07150	0.01080
IA04521 (MA275045)	1.05074	0.01910	-0.81636	0.02316	0.15830	0.01210
IA04708 (MA311392)	1.34083	0.03247	0.83033	0.01229	0.27600	0.00340
IA04917 (MA800475574)	0.60362	0.01065	-1.42559	0.05079	0.01680	0.02370
IA05092 (MA804466151)	0.49840	0.01551	-1.40507	0.11985	0.13930	0.04260
IA07986 (MA901135378)	1.60840	0.02848	-0.72068	0.01412	0.26250	0.00770
IA07988 (MA901135957)	1.12720	0.02188	0.60037	0.01219	0.18770	0.00390
IA07990 (MA901137084)	0.53770	0.01291	-0.17392	0.04317	0.04530	0.01530
IA07993 (MA901137701)	0.57393	0.01430	-1.35083	0.08197	0.09220	0.03440
IA07999 (MA901139314)	1.21853	0.02084	-0.25213	0.01381	0.18540	0.00630
IA08002 (MA901142533)	1.10694	0.02425	0.30337	0.01544	0.29410	0.00540
IA08006 (MA901143832)	1.51441	0.02385	-0.64460	0.01280	0.18250	0.00700
IA08067 (MA902262781)	0.91547	0.01945	0.61479	0.01473	0.16860	0.00500
IA08080 (MA902284919)	1.02614	0.01597	-0.52099	0.01534	0.04540	0.00760
IA08231 (MA905271170)	0.74270	0.01476	-0.62886	0.03423	0.13010	0.01460
IA08244 (MA908451759)	1.28665	0.03415	0.76644	0.01513	0.42130	0.00380
IA10311 (MA264730)	0.57908	0.00747	-1.34535	0.01950	0.00080	0.00620
IA10341 (MA301683)	0.92068	0.02471	0.51545	0.02011	0.34590	0.00600
IA01034 (MA311386)	0.79595	0.00793	-0.29062	0.00843	0.00000	0.00000
IA02934 (MA715919547)	0.89938	0.00862	0.16777	0.00823	0.00000	0.00000
IA04751 (MA704833889)	0.84220	0.00816	-0.09896	0.00823	0.00000	0.00000
IA04922 (MA800562180)	0.86003	0.00839	-0.67924	0.00863	0.00000	0.00000
IA05060 (MA803864446)	0.73790	0.00810	-1.29639	0.01239	0.00000	0.00000
IA07703 (MA800475031)	0.78096	0.00862	-1.05485	0.01036	0.00000	0.00000
IA08005 (MA901143488)	0.87195	0.00822	-0.04573	0.00823	0.00000	0.00000
IA08008 (MA901248805)	1.35941	0.01314	-1.03393	0.00833	0.00000	0.00000
IA08009 (MA901252301)	1.24776	0.01146	-0.41769	0.00691	0.00000	0.00000
IA08079 (MA902283272)	0.96513	0.00990	-1.10655	0.00965	0.00000	0.00000
IA08086 (MA902305954)	0.79098	0.00810	-0.05051	0.00904	0.00000	0.00000
IA08089 (MA902359126)	1.17529	0.01088	-0.24512	0.00701	0.00000	0.00000
IA08235 (MA905906652)	0.67655	0.00735	-0.25599	0.00924	0.00000	0.00000

Table 2.8.26
IRT Parameters for Polytomous Items
Mathematics Grade 8

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA04781 (MA715920050)	1.05716	0.00770	-0.84508	0.00485	1.20284	0.01359	0.49763	0.01062	-0.27747	0.00886
IA07658 (MA311459)	1.37793	0.00990	0.45321	0.00404	1.20569	0.00818	0.21800	0.00791	-0.39103	0.00880
IA08071 (MA902268353)	0.82200	0.00689	0.66771	0.00804	0.89099	0.01150	-0.89099	0.01598	0.00000	0.00000
IA08077 (MA902281251)	0.99066	0.00845	-0.68340	0.00612	0.51649	0.01142	-0.51649	0.00969	0.00000	0.00000
IA08095 (MA902400539)	1.30731	0.00938	0.41170	0.00394	0.96945	0.00795	0.18420	0.00786	-0.25530	0.00867
IA10357 (MA307515)	1.52650	0.01140	0.29029	0.00351	0.66705	0.00730	0.24167	0.00721	-0.16828	0.00775

Item ID	Parameters and Measures of Standard Error						
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)	
IA04781 (MA715920050)	-1.42300	0.00973	0.00000	0.00000	n/a	n/a	
IA07658 (MA311459)	-1.03266	0.01093	0.00000	0.00000	n/a	n/a	
IA08095 (MA902400539)	-0.89835	0.01052	0.00000	0.00000	n/a	n/a	
IA10357 (MA307515)	-0.74043	0.00904	0.00000	0.00000	n/a	n/a	

Table 2.8.27
IRT Parameters for Dichotomous Items
Mathematics Grade 10

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA04551 (MA287432)	1.61259	0.02782	-1.02085	0.01579	0.13960	0.01070
IA04558 (MA287734)	1.32137	0.02028	0.18893	0.01016	0.12620	0.00390
IA04676 (MA308751)	0.71116	0.02005	0.01323	0.03751	0.31070	0.01180
IA04737 (MA315444)	1.15512	0.02011	-0.45252	0.01760	0.20570	0.00850
IA07953 (MA900784138)	0.53100	0.01508	-1.02125	0.08911	0.11130	0.03310
IA08030 (MA901373728)	0.57467	0.01736	-0.15704	0.05602	0.22500	0.01750
IA08140 (MA903566809)	1.37848	0.01935	-1.45693	0.02021	0.02880	0.01640
IA08151 (MA903579407)	0.85771	0.01578	-1.06138	0.03510	0.07280	0.01940
IA08168 (MA903681943)	1.29436	0.03186	0.82203	0.01328	0.30220	0.00370
IA10301 (MA250982)	1.27279	0.02613	0.28276	0.01368	0.31640	0.00490
IA10317 (MA281578)	1.66573	0.03174	0.36613	0.00965	0.22370	0.00350
IA10322 (MA281661)	1.46908	0.03250	0.61384	0.01177	0.31430	0.00360
IA10331 (MA294292)	1.21691	0.01812	-0.48249	0.01358	0.09230	0.00710
IA10369 (MA311209)	1.51345	0.02321	0.28356	0.00875	0.11200	0.00310
IA10370 (MA311237)	0.87372	0.01847	-1.09688	0.04244	0.18710	0.02160
IA10371 (MA311240)	0.51236	0.01643	0.04732	0.05733	0.12490	0.01840
IA10382 (MA314948)	0.78487	0.01502	-0.76922	0.03460	0.10440	0.01640
IA10383 (MA315404)	0.99145	0.01420	-1.09829	0.02313	0.01710	0.01410
IA10384 (MA315448)	1.05604	0.01824	-1.23085	0.03017	0.12140	0.01900
IA10385 (MA315696)	0.94936	0.02210	-0.81669	0.03751	0.35600	0.01540
IA02769 (MA713335046)	1.26426	0.01175	-0.98907	0.00855	0.00000	0.00000
IA02863 (MA713829689)	1.14647	0.01081	-0.20542	0.00724	0.00000	0.00000
IA04793 (MA717348780)	0.70432	0.00731	0.22312	0.00955	0.00000	0.00000
IA07750 (MA805405196)	0.50797	0.00649	-0.18007	0.01136	0.00000	0.00000
IA07949 (MA900779724)	1.63434	0.01526	0.01001	0.00644	0.00000	0.00000
IA08028 (MA901372985)	0.41696	0.00590	-0.20119	0.01307	0.00000	0.00000
IA08048 (MA901700241)	0.65867	0.00737	-0.72487	0.01056	0.00000	0.00000
IA08057 (MA901762643)	0.91067	0.00883	0.12547	0.00825	0.00000	0.00000
IA08058 (MA901767462)	0.97660	0.00982	0.36503	0.00835	0.00000	0.00000
IA08130 (MA903470727)	1.15051	0.01029	-0.38685	0.00744	0.00000	0.00000
IA10315 (MA274106)	0.82480	0.00824	-0.11711	0.00835	0.00000	0.00000
IA10355 (MA307124)	0.89623	0.00894	0.49517	0.00925	0.00000	0.00000

Table 2.8.28
IRT Parameters for Polytomous Items
Mathematics Grade 10

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA02774 (MA713346383)	1.61300	0.01456	0.50030	0.00510	0.21814	0.00837	-0.21814	0.00927	0.00000	0.00000
IA02862 (MA713808299)	1.20995	0.00859	-0.40636	0.00428	1.26228	0.01177	0.22699	0.00859	-0.37936	0.00824
IA07653 (MA311223)	1.54279	0.01175	-0.68047	0.00385	0.77365	0.01049	0.13995	0.00838	-0.21940	0.00776
IA08026 (MA901364620)	1.07340	0.00783	-0.73598	0.00510	1.38824	0.01469	0.53690	0.01083	-0.41340	0.00885
IA08031 (MA901375276)	0.95872	0.00807	1.16608	0.00829	0.62727	0.01205	-0.62727	0.01634	0.00000	0.00000
IA08033 (MA901378123)	1.41571	0.01146	0.02112	0.00491	0.30981	0.00826	-0.30981	0.00875	0.00000	0.00000
IA08125 (MA903452431)	0.74536	0.00707	0.52479	0.00775	0.72336	0.01162	-0.72336	0.01503	0.00000	0.00000
IA08126 (MA903457147)	1.11461	0.00900	0.36221	0.00595	0.59116	0.00937	-0.59116	0.01117	0.00000	0.00000
IA08158 (MA903658309)	0.98935	0.00848	-0.45312	0.00629	0.63451	0.01161	-0.63451	0.01013	0.00000	0.00000
IA10343 (MA302066)	1.47417	0.01052	0.10553	0.00381	0.80787	0.00818	0.42942	0.00765	-0.07988	0.00757

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA02862 (MA713808299)	-1.10991	0.00929	0.00000	0.00000	n/a	n/a
IA07653 (MA311223)	-0.69420	0.00750	0.00000	0.00000	n/a	n/a
IA08026 (MA901364620)	-1.51175	0.01039	0.00000	0.00000	n/a	n/a
IA10343 (MA302066)	-1.15741	0.01038	0.00000	0.00000	n/a	n/a

Table 2.8.29
IRT Parameters for Dichotomous Items
Science Grade 5

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA03049 (SC294474)	0.36202	0.00846	-1.42688	0.09203	0.01700	0.02600
IA03060 (SC299518)	0.55167	0.01520	-0.46593	0.05474	0.18210	0.01680
IA03094 (SC315783)	0.60800	0.01515	-0.61678	0.04794	0.16950	0.01610
IA03115 (SC315960)	0.60935	0.01240	-1.18401	0.04964	0.05590	0.01980
IA03160 (SC629544010)	1.13607	0.02314	0.49014	0.01292	0.19990	0.00420
IA03225 (SC632355523)	0.83946	0.01717	-0.21955	0.02267	0.18670	0.00830
IA05409 (SC315963)	0.55867	0.00934	-1.43923	0.04499	0.00950	0.01790
IA05564 (SC736168952)	0.68607	0.01214	-1.14434	0.03627	0.02560	0.01570
IA05754 (SC814661140)	0.76341	0.01634	-2.10835	0.06675	0.11540	0.03580
IA08420 (SC304689)	1.02527	0.01841	-1.45023	0.02958	0.14060	0.01570
IA08491 (SC630232218)	0.91416	0.01805	-0.85795	0.02867	0.23040	0.01170
IA08527 (SC804073428)	0.59021	0.01193	-2.27778	0.07899	0.04340	0.03800
IA08529 (SC804249221)	0.85450	0.02179	0.54012	0.01881	0.24510	0.00600
IA08571 (SC903846864)	0.63223	0.01312	-1.07918	0.04647	0.07290	0.01840
IA08578 (SC903852865)	0.58253	0.01395	-0.93184	0.05644	0.14580	0.01950
IA08594 (SC904133849)	0.29505	0.00991	-2.60067	0.24231	0.09380	0.05880
IA08628 (SC910555750)	0.83152	0.01369	-2.35927	0.04726	0.02820	0.02990
IA08647 (SC911434880)	0.77732	0.01862	0.76645	0.01677	0.13660	0.00530
IA08655 (SC911554259)	0.92899	0.01733	0.02525	0.01621	0.13840	0.00610
IA10615 (SC304477)	0.44191	0.01613	-0.54085	0.09667	0.15220	0.02660
IA10617 (SC304593)	0.65796	0.01494	-1.13380	0.05383	0.14230	0.02120
IA10630 (SC313116)	1.01764	0.02464	0.55055	0.01621	0.28280	0.00500
IA03140 (SC625636354)	0.24396	0.00503	0.01562	0.02187	0.00000	0.00000
IA03274 (SC710851159)	0.80284	0.00866	-0.63242	0.00986	0.00000	0.00000
IA03309 (SC718080983)	0.39491	0.00576	-0.87529	0.01677	0.00000	0.00000
IA03313 (SC718140870)	0.60997	0.00695	-1.16440	0.01360	0.00000	0.00000
IA08485 (SC625638794)	0.53969	0.00700	-0.92652	0.01439	0.00000	0.00000
IA08566 (SC903843564)	0.53170	0.00638	-0.12491	0.01156	0.00000	0.00000
IA08595 (SC904142336)	0.26128	0.00669	-4.75795	0.11095	0.00000	0.00000
IA08627 (SC910545826)	0.55115	0.00794	-2.19879	0.02425	0.00000	0.00000
IA08657 (SC911947283)	0.42603	0.00586	-0.69090	0.01462	0.00000	0.00000
IA08660 (SC911952526)	0.80242	0.00882	-1.32885	0.01213	0.00000	0.00000

Table 2.8.30
IRT Parameters for Polytomous Items
Science Grade 5

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA03144 (SC626958463)	0.63690	0.00674	-1.21223	0.01443	1.67460	0.02999	-1.67460	0.01870	0.00000	0.00000
IA03157 (SC629273289)	0.54301	0.00628	1.67622	0.02331	2.29312	0.02633	-2.29312	0.05067	0.00000	0.00000
IA03177 (SC630161361)	0.37151	0.00493	-0.47970	0.02007	1.93940	0.03717	-1.93940	0.03219	0.00000	0.00000
IA03195 (SC630756792)	0.69152	0.00669	0.20080	0.00861	1.53441	0.01610	0.07718	0.01343	-1.61159	0.02121
IA08463 (SC313154)	0.68669	0.00674	0.61583	0.01040	2.06084	0.01776	-0.14541	0.01606	-1.91543	0.02691
IA08522 (SC803880630)	0.55722	0.00597	-1.10485	0.01212	1.17146	0.02461	-1.17146	0.01659	0.00000	0.00000
IA08530 (SC804250232)	0.70542	0.00674	-0.87478	0.00929	1.00883	0.01829	-1.00883	0.01355	0.00000	0.00000
IA08580 (SC903853405)	0.73105	0.00685	0.90649	0.01195	1.94158	0.01639	0.23864	0.01655	-2.18022	0.03423
IA08662 (SC911956141)	0.74650	0.00654	0.04422	0.00803	1.60086	0.01540	0.17378	0.01228	-1.77464	0.01962

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA03195 (SC630756792)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA08463 (SC313154)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA08580 (SC903853405)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA08662 (SC911956141)	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.8.31
IRT Parameters for Dichotomous Items
Science Grade 8

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
IA03079 (SC310231)	0.78469	0.02071	0.06767	0.02776	0.32020	0.00890
IA03091 (SC313192)	0.38070	0.01712	1.13171	0.04934	0.06330	0.01540
IA03222 (SC632267387)	1.47809	0.07234	1.71093	0.02284	0.31040	0.00260
IA03224 (SC632268044)	0.85366	0.01897	0.11271	0.02074	0.24690	0.00740
IA03239 (SC633058958)	0.59838	0.01504	-0.59431	0.04997	0.17880	0.01690
IA05494 (SC631649634)	0.84912	0.01981	0.69445	0.01540	0.15720	0.00530
IA05497 (SC632265448)	0.93453	0.02172	-0.28307	0.02514	0.33660	0.00890
IA05541 (SC735475827)	0.42784	0.01594	0.68041	0.04871	0.10200	0.01450
IA05667 (SC803873079)	1.18476	0.03395	1.31452	0.01519	0.18370	0.00300
IA05742 (SC814037351)	1.07993	0.01953	0.39630	0.01163	0.13480	0.00430
IA08565 (SC903843363)	1.02488	0.01678	-1.18600	0.02441	0.10520	0.01320
IA08570 (SC903846698)	1.38235	0.02469	-0.78026	0.01613	0.22090	0.00830
IA08572 (SC903847508)	0.87662	0.01852	0.26713	0.01718	0.19430	0.00630
IA08637 (SC910947265)	1.36411	0.02334	0.28819	0.01016	0.16750	0.00380
IA08640 (SC910959157)	0.68043	0.01122	-1.47597	0.04096	0.01610	0.01980
IA10584 (SC265230)	0.55270	0.04046	2.44624	0.07700	0.25340	0.00670
IA10599 (SC291845)	1.32314	0.02974	1.05335	0.01184	0.14890	0.00270
IA10605 (SC294244)	0.53503	0.02318	1.57296	0.02975	0.15540	0.00800
IA10616 (SC304491)	0.80781	0.01925	0.51227	0.01833	0.20930	0.00620
IA10633 (SC313185)	1.02875	0.01605	-1.01031	0.02022	0.06500	0.01050
IA03255 (SC633724344)	0.70871	0.00769	-0.43036	0.00943	0.00000	0.00000
IA03322 (SC718682565)	0.40730	0.00640	-1.39510	0.02137	0.00000	0.00000
IA03323 (SC718684123)	0.50444	0.00662	-0.79922	0.01362	0.00000	0.00000
IA05548 (SC735551980)	0.59586	0.00657	-0.90807	0.01184	0.00000	0.00000
IA05650 (SC803361743)	0.24288	0.00511	-1.28018	0.02996	0.00000	0.00000
IA05774 (SC815762323)	0.91562	0.00960	-1.20978	0.01016	0.00000	0.00000
IA08494 (SC630748134)	0.73357	0.00752	-0.27626	0.00870	0.00000	0.00000
IA08498 (SC632267532)	1.05002	0.00993	-0.04726	0.00733	0.00000	0.00000
IA08532 (SC807303457)	0.43070	0.00623	-0.76476	0.01498	0.00000	0.00000
IA08573 (SC903849539)	0.79373	0.00780	0.15755	0.00870	0.00000	0.00000
IA08611 (SC905147343)	0.66247	0.00774	-1.34177	0.01330	0.00000	0.00000
IA08638 (SC910949833)	0.36864	0.00584	-1.34785	0.02116	0.00000	0.00000

Table 2.8.32
IRT Parameters for Polytomous Items
Science Grade 8

Item ID	Parameters and Measures of Standard Error									
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)
IA03214 (SC631744146)	0.95288	0.00791	0.25222	0.00661	1.44314	0.01195	0.02636	0.01051	-1.46950	0.01647
IA03238 (SC632843069)	0.57246	0.00578	-0.50689	0.01001	1.11386	0.01872	-1.11386	0.01582	0.00000	0.00000
IA05696 (SC804379456)	0.68043	0.00645	-1.11932	0.00996	1.03760	0.02031	-1.03760	0.01350	0.00000	0.00000
IA08533 (SC807345964)	0.86410	0.00718	-0.13473	0.00724	1.72927	0.01561	0.01467	0.01084	-1.74394	0.01635
IA08543 (SC810865313)	0.73671	0.00730	0.20034	0.00769	0.68057	0.01217	-0.68057	0.01438	0.00000	0.00000
IA08560 (SC816553266)	0.62953	0.00623	0.32276	0.01005	1.16860	0.01498	-1.16860	0.01955	0.00000	0.00000
IA08581 (SC903853728)	1.05541	0.00825	-0.25685	0.00508	0.97095	0.01034	0.16545	0.00884	-1.13640	0.01117
IA08614 (SC905636245)	0.75013	0.00668	-0.71431	0.00818	1.02660	0.01562	-1.02660	0.01256	0.00000	0.00000
IA08641 (SC911252123)	0.82010	0.00668	-0.36429	0.00743	1.65077	0.01597	0.29885	0.01128	-1.94962	0.01672

Item ID	Parameters and Measures of Standard Error					
	d3	SE(d3)	d4	SE(d4)	d5	SE(d5)
IA03214 (SC631744146)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA08533 (SC807345964)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA08581 (SC903853728)	0.00000	0.00000	n/a	n/a	n/a	n/a
IA08641 (SC911252123)	0.00000	0.00000	n/a	n/a	n/a	n/a

Section 2.9

Decision Accuracy and Consistency (DAC)

Table 2.9.1
 DAC Results
 English Language Arts Grade 3

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
61648	0.90	0.59	Overall	0.81	0.73	0.10	0.09
			Cut 1	0.95	0.93	0.02	0.03
			Cut 2	0.90	0.86	0.06	0.04
			Cut 3	0.96	0.95	0.02	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.81	0.71		
			Perf 2	0.80	0.74		
			Perf 3	0.83	0.76		
			Perf 4	0.76	0.58		

Table 2.9.2
 DAC Results
 English Language Arts Grade 4

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
62100	0.90	0.60	Overall	0.82	0.75	0.10	0.08
			Cut 1	0.95	0.92	0.03	0.03
			Cut 2	0.90	0.86	0.05	0.04
			Cut 3	0.97	0.96	0.02	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.81	0.72		
			Perf 2	0.83	0.78		
			Perf 3	0.82	0.75		
			Perf 4	0.74	0.50		

Table 2.9.3
 DAC Results
 English Language Arts Grade 5

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
63620	0.92	0.64	Overall	0.84	0.78	0.09	0.07
			Cut 1	0.96	0.94	0.02	0.02
			Cut 2	0.91	0.88	0.05	0.04
			Cut 3	0.97	0.96	0.02	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.81	0.72		
			Perf 2	0.85	0.81		
			Perf 3	0.84	0.77		
			Perf 4	0.80	0.62		

Table 2.9.4
 DAC Results
 English Language Arts Grade 6

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
63887	0.93	0.62	Overall	0.81	0.74	0.09	0.09
			Cut 1	0.94	0.92	0.03	0.03
			Cut 2	0.92	0.88	0.04	0.04
			Cut 3	0.95	0.93	0.03	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.87	0.79		
			Perf 2	0.81	0.74		
			Perf 3	0.80	0.74		
			Perf 4	0.74	0.59		

Table 2.9.5
 DAC Results
 English Language Arts Grade 7

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
65584	0.93	0.65	Overall	0.84	0.77	0.08	0.08
			Cut 1	0.95	0.93	0.02	0.03
			Cut 2	0.92	0.89	0.04	0.04
			Cut 3	0.97	0.95	0.02	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.87	0.79		
			Perf 2	0.83	0.78		
			Perf 3	0.84	0.78		
			Perf 4	0.73	0.55		

Table 2.9.6
 DAC Results
 English Language Arts Grade 8

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
67919	0.94	0.65	Overall	0.83	0.76	0.09	0.08
			Cut 1	0.95	0.93	0.02	0.02
			Cut 2	0.92	0.89	0.03	0.04
			Cut 3	0.96	0.94	0.03	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.86	0.78		
			Perf 2	0.85	0.80		
			Perf 3	0.82	0.76		
			Perf 4	0.70	0.54		

Table 2.9.7
 DAC Results
 English Language Arts Grade 10

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
65193	0.93	0.65	Overall	0.85	0.78	0.09	0.07
			Cut 1	0.97	0.96	0.01	0.01
			Cut 2	0.92	0.89	0.04	0.03
			Cut 3	0.95	0.93	0.03	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.81	0.72		
			Perf 2	0.83	0.78		
			Perf 3	0.87	0.83		
			Perf 4	0.76	0.60		

Table 2.9.1
 DAC Results
 Mathematics Grade 3

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
53433	0.93	0.63	Overall	0.83	0.75	0.09	0.09
			Cut 1	0.95	0.93	0.02	0.02
			Cut 2	0.91	0.88	0.04	0.04
			Cut 3	0.96	0.94	0.02	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.84	0.74		
			Perf 2	0.83	0.77		
			Perf 3	0.84	0.78		
			Perf 4	0.73	0.58		

Table 2.9.2
 DAC Results
 Mathematics Grade 4

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
53577	0.94	0.66	Overall	0.85	0.78	0.08	0.08
			Cut 1	0.96	0.95	0.02	0.02
			Cut 2	0.92	0.89	0.04	0.04
			Cut 3	0.96	0.94	0.02	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.83	0.73		
			Perf 2	0.86	0.80		
			Perf 3	0.86	0.81		
			Perf 4	0.74	0.59		

Table 2.9.3
 DAC Results
 Mathematics Grade 5

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
55635	0.94	0.68	Overall	0.86	0.80	0.07	0.07
			Cut 1	0.96	0.95	0.02	0.02
			Cut 2	0.92	0.89	0.04	0.04
			Cut 3	0.98	0.97	0.01	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.83	0.72		
			Perf 2	0.87	0.83		
			Perf 3	0.86	0.81		
			Perf 4	0.81	0.67		

Table 2.9.4
 DAC Results
 Mathematics Grade 6

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
56939	0.94	0.69	Overall	0.86	0.80	0.07	0.07
			Cut 1	0.97	0.95	0.01	0.02
			Cut 2	0.92	0.89	0.04	0.04
			Cut 3	0.97	0.96	0.01	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.84	0.73		
			Perf 2	0.86	0.81		
			Perf 3	0.88	0.83		
			Perf 4	0.80	0.67		

Table 2.9.5
 DAC Results
 Mathematics Grade 7

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
59311	0.94	0.68	Overall	0.85	0.79	0.08	0.07
			Cut 1	0.96	0.94	0.02	0.02
			Cut 2	0.92	0.89	0.04	0.04
			Cut 3	0.97	0.96	0.02	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.84	0.74		
			Perf 2	0.87	0.82		
			Perf 3	0.84	0.78		
			Perf 4	0.83	0.72		

Table 2.9.6
 DAC Results
 Mathematics Grade 8

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
62311	0.94	0.67	Overall	0.85	0.79	0.09	0.07
			Cut 1	0.95	0.93	0.03	0.02
			Cut 2	0.93	0.89	0.04	0.03
			Cut 3	0.97	0.96	0.02	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.78	0.70		
			Perf 2	0.87	0.83		
			Perf 3	0.84	0.77		
			Perf 4	0.86	0.75		

Table 2.9.7
 DAC Results
 Mathematics Grade 10

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
61296	0.95	0.69	Overall	0.86	0.80	0.07	0.07
			Cut 1	0.96	0.95	0.01	0.02
			Cut 2	0.93	0.90	0.04	0.03
			Cut 3	0.96	0.95	0.02	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.77	0.63		
			Perf 2	0.85	0.80		
			Perf 3	0.87	0.83		
			Perf 4	0.86	0.78		

Table 2.9.8
 DAC Results
 Science Grade 5

N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
56846	0.90	0.58	Overall	0.80	0.72	0.10	0.10
			Cut 1	0.95	0.93	0.02	0.03
			Cut 2	0.90	0.86	0.05	0.05
			Cut 3	0.95	0.93	0.03	0.02
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.82	0.70		
			Perf 2	0.81	0.74		
			Perf 3	0.80	0.74		
			Perf 4	0.72	0.55		

Table 2.9.9
 DAC Results
 Science Grade 8

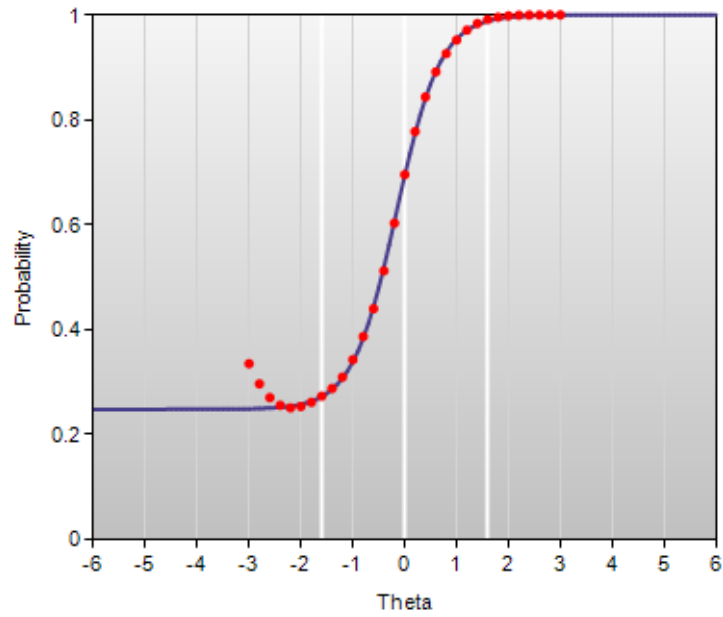
N	Reliability	Kappa		Accuracy	Consistency	F Pos	F Neg
62926	0.92	0.62	Overall	0.82	0.75	0.09	0.08
			Cut 1	0.95	0.94	0.02	0.03
			Cut 2	0.91	0.88	0.04	0.05
			Cut 3	0.95	0.94	0.03	0.01
			Cut 4	1.00	1.00	0.00	0.00
			Perf 1	0.84	0.74		
			Perf 2	0.84	0.78		
			Perf 3	0.81	0.76		
			Perf 4	0.71	0.51		

Section 2.10

Fit Plots of Watchlist Items

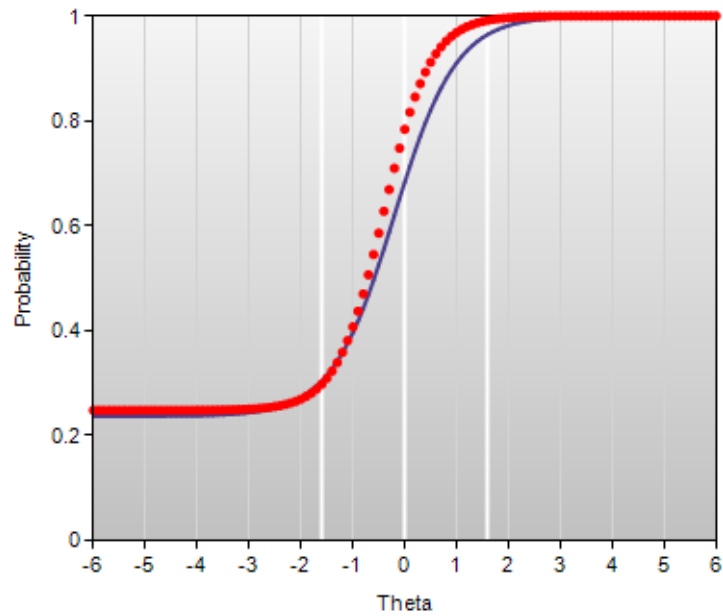
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(EL626050679)



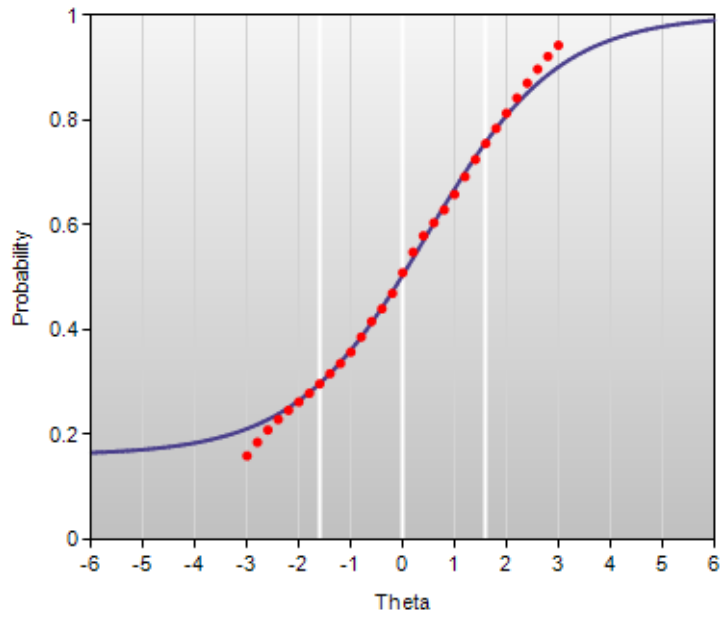
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English Language Arts Grade 3: IA00450
(EL626050679)



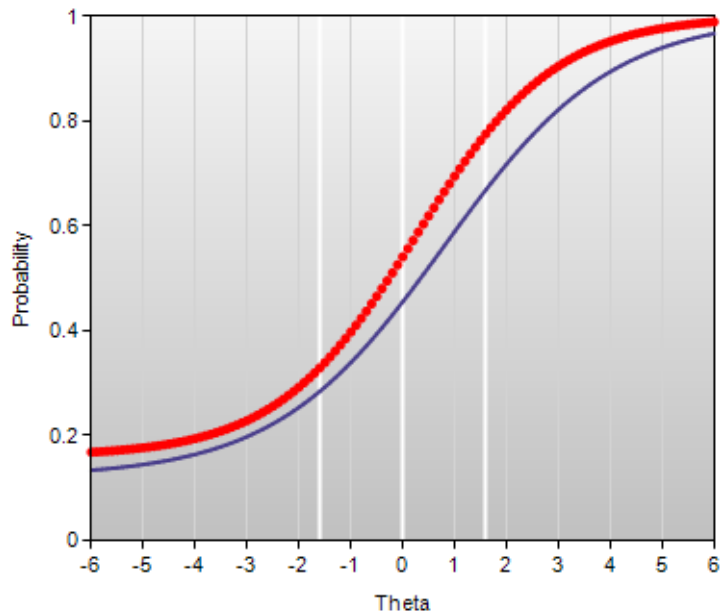
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English Language Arts Grade 3: IA00451
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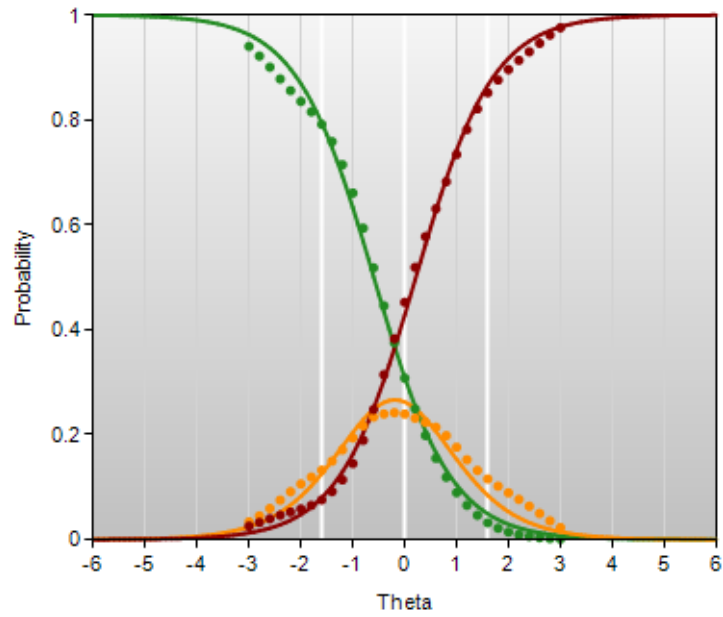
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English Language Arts Grade 3: IA00451
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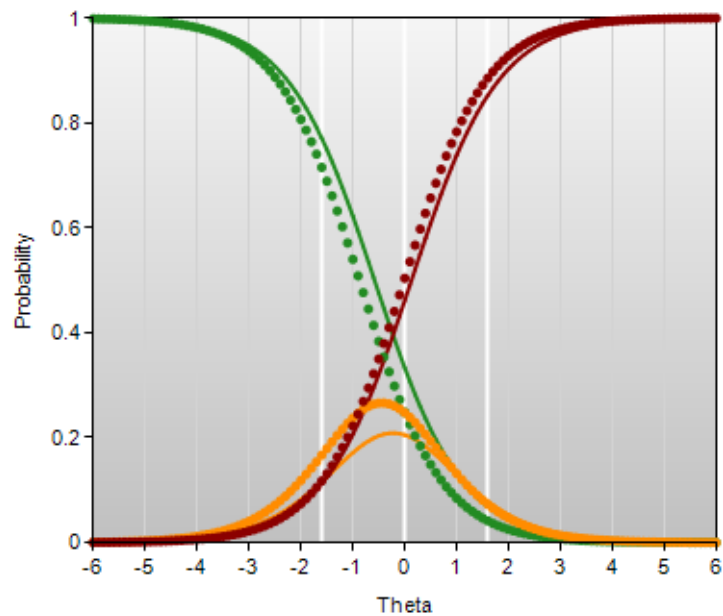
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English Language Arts Grade 3: IA00452
(EL626051097)



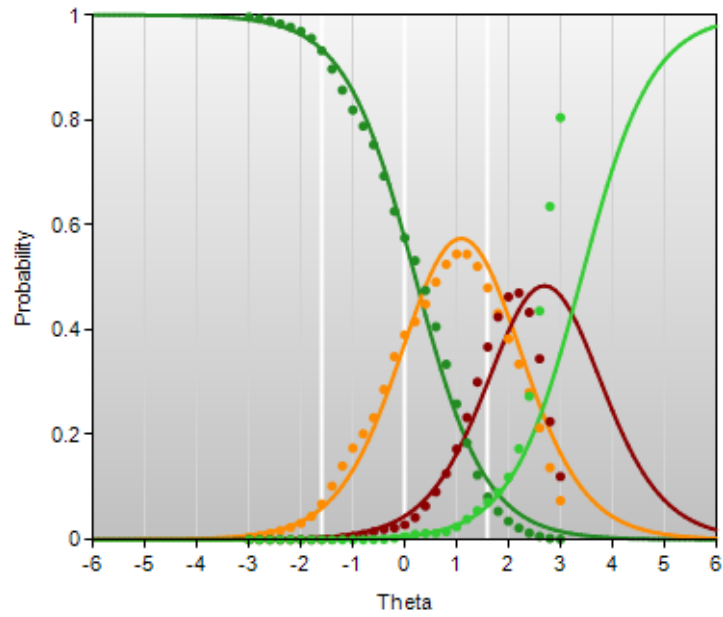
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English Language Arts Grade 3: IA00452
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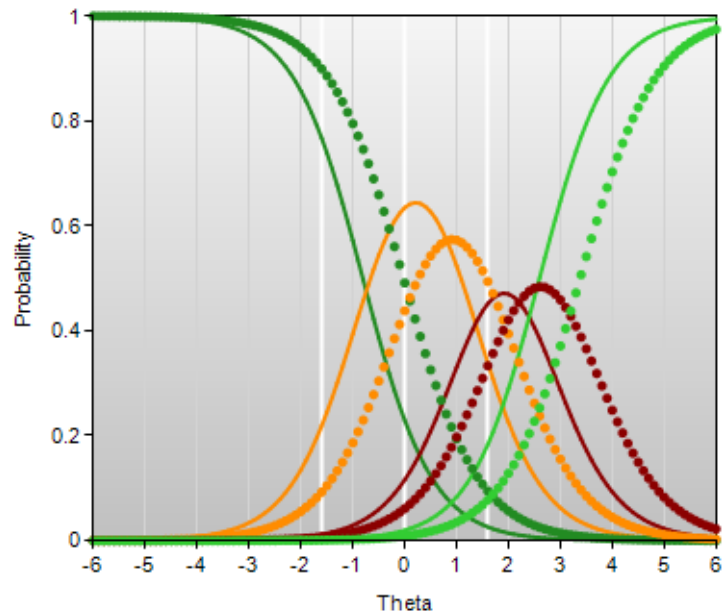
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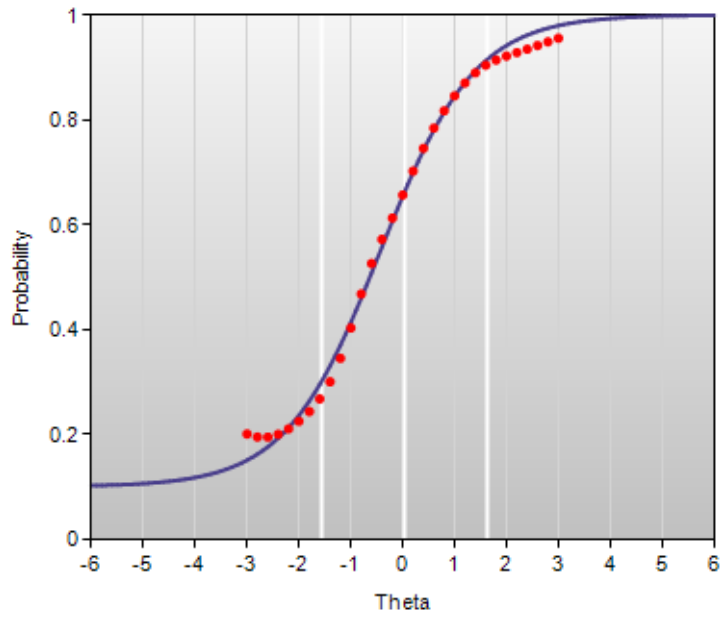
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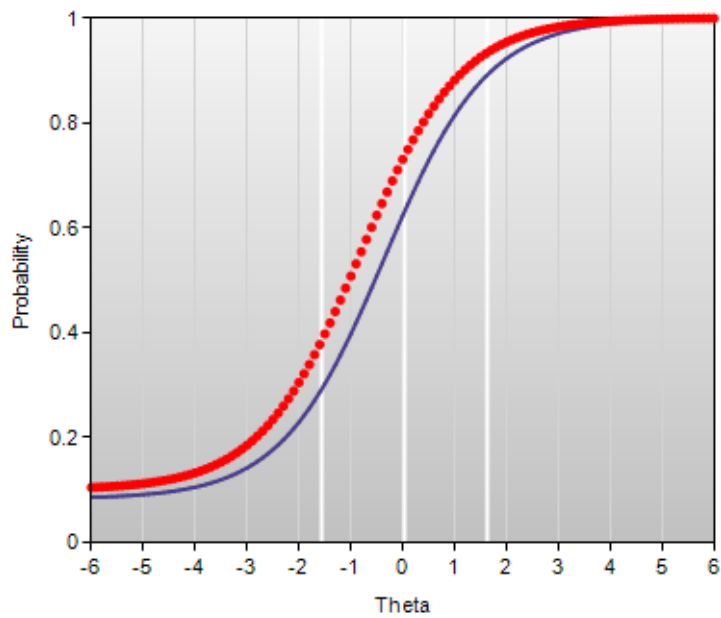
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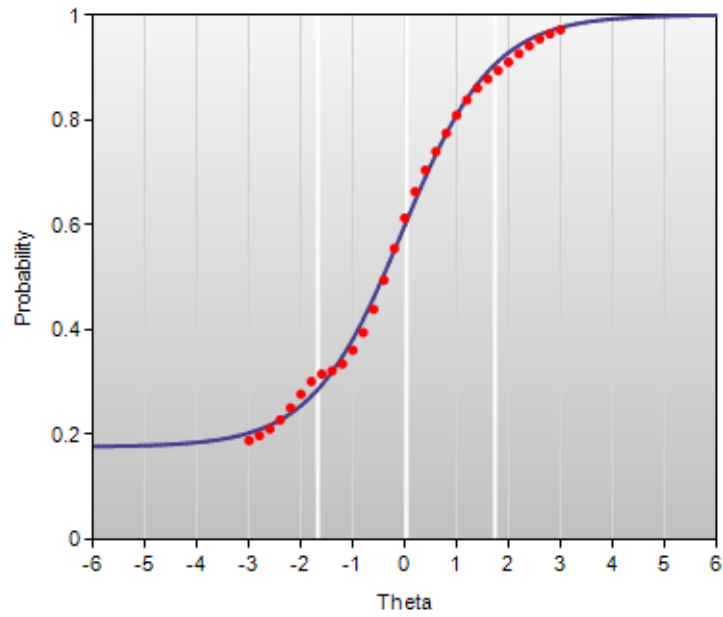
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English Language Arts Grade 4: IA00289
(EL309792)



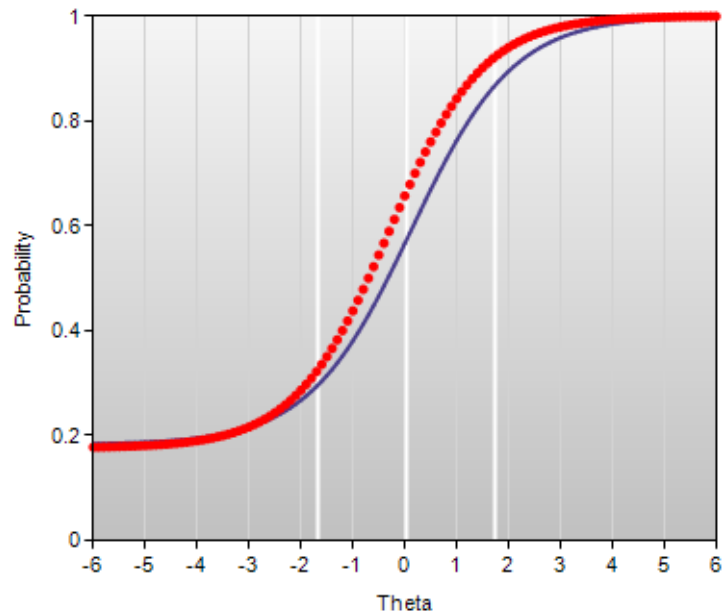
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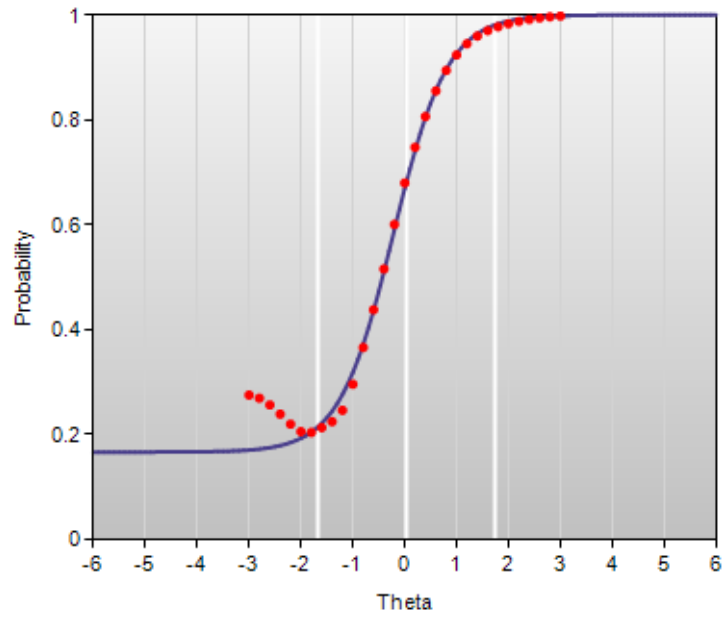
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English Language Arts Grade 5: IA00505
(EL626355215)



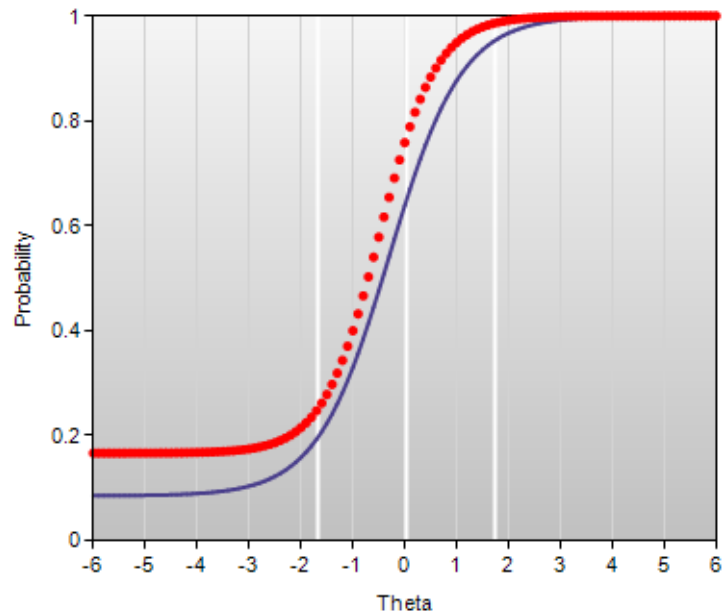
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English Language Arts Grade 5: IA00506
(EL62635557)



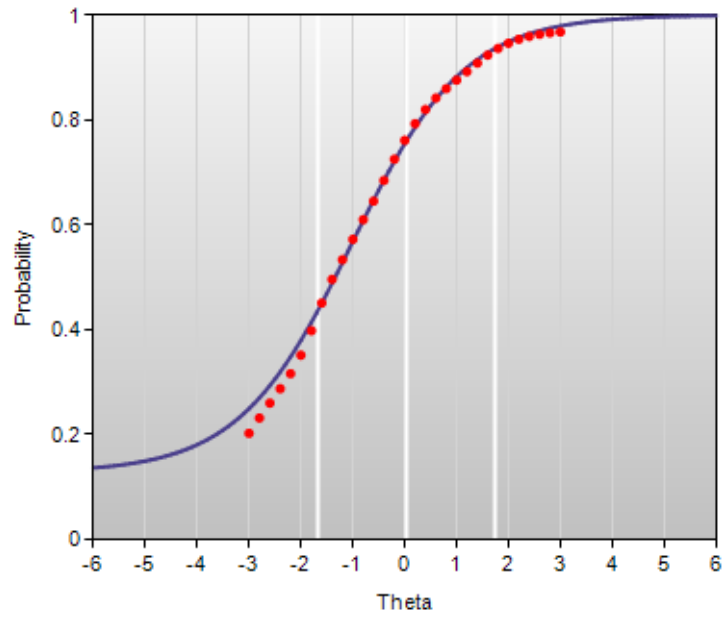
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English Language Arts Grade 5: IA00506
(EL62635557)



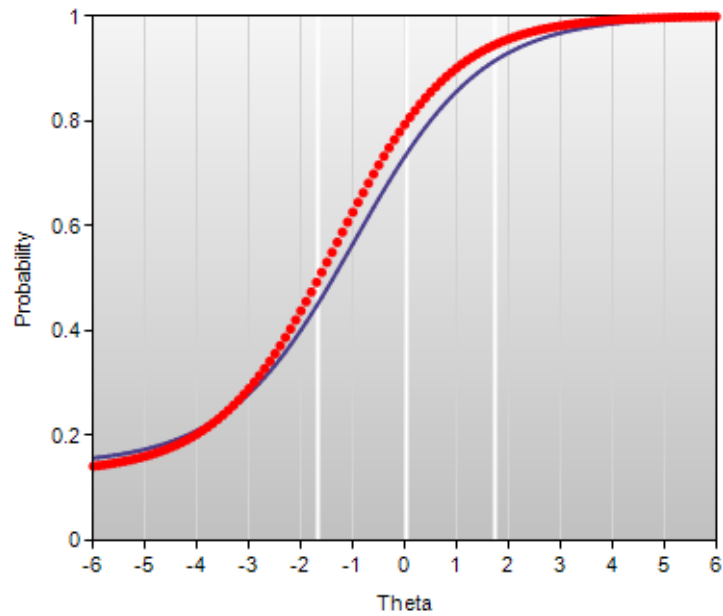
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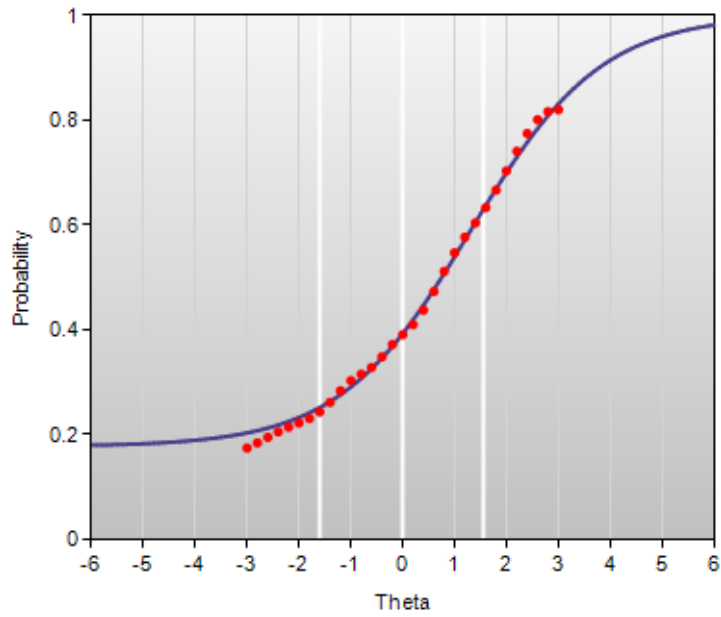
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English Language Arts Grade 5: IA01672
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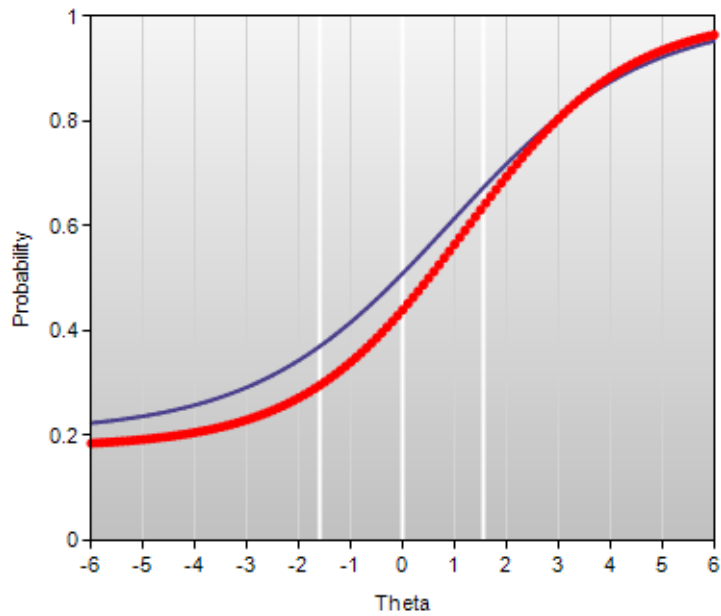
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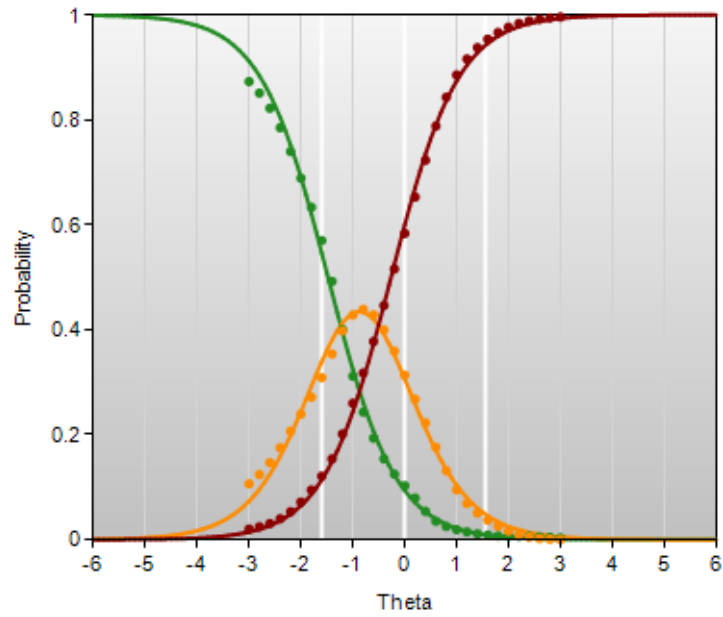
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English Language Arts Grade 6: IA00520
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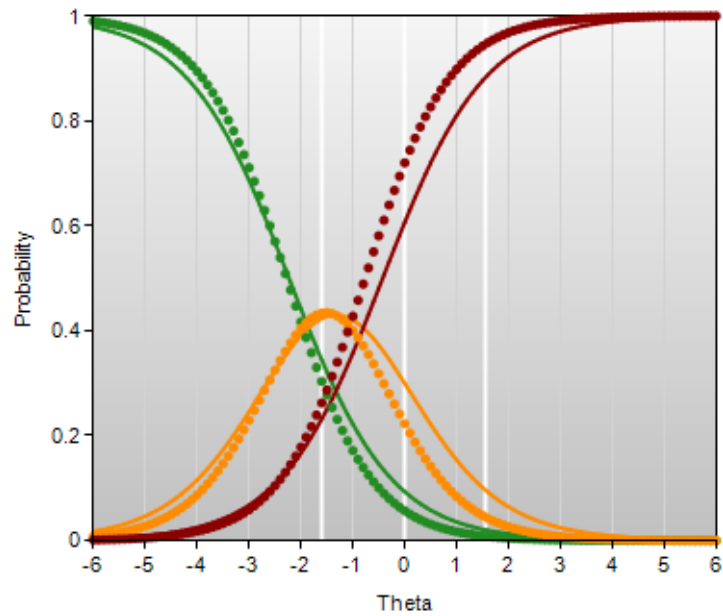
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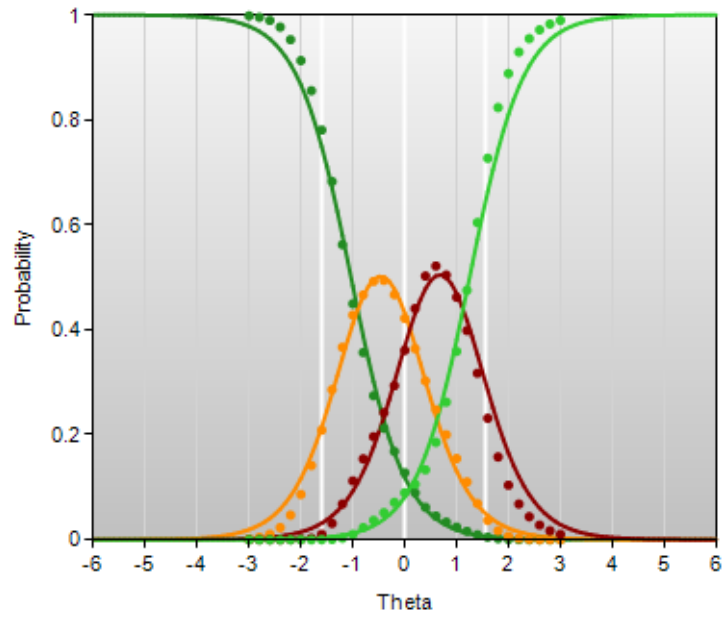
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English Language Arts Grade 6: IA00530
(EL626868748)



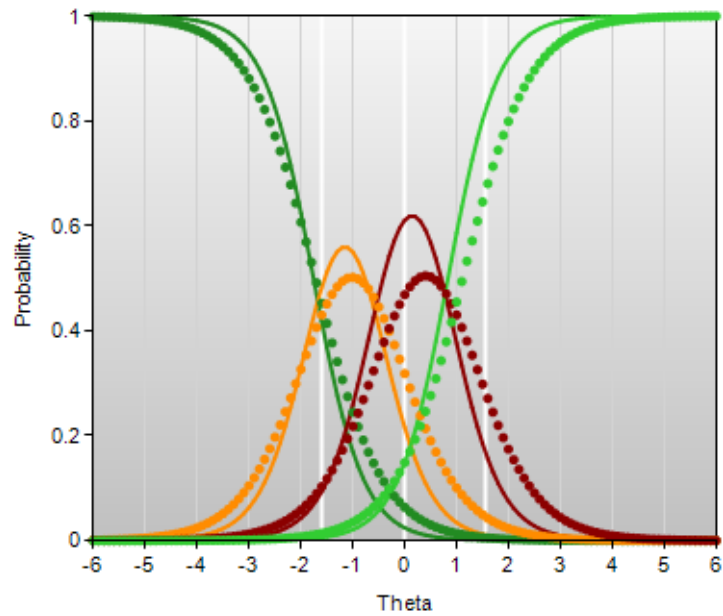
Initial Calibration

English Language Arts Grade 6: IA00531A
(EL626869132#SCORE_TRAIT_Conv)



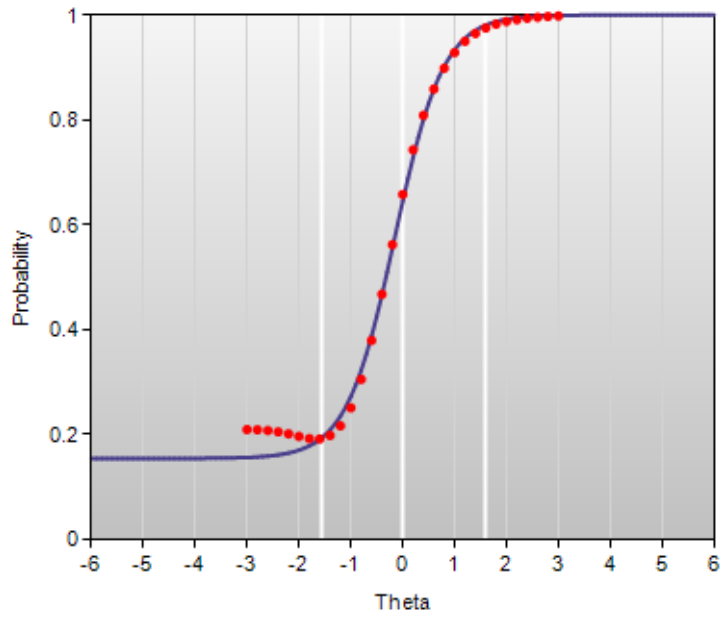
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English Language Arts Grade 6: IA00531A
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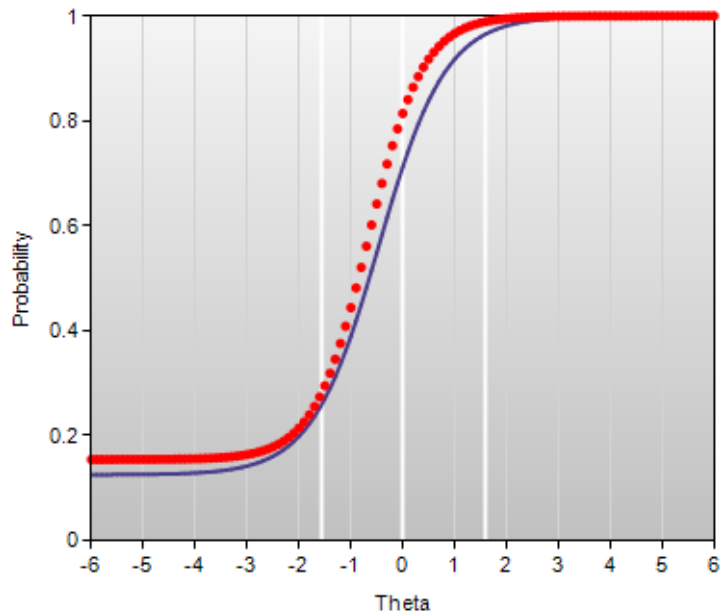
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(EL292172)



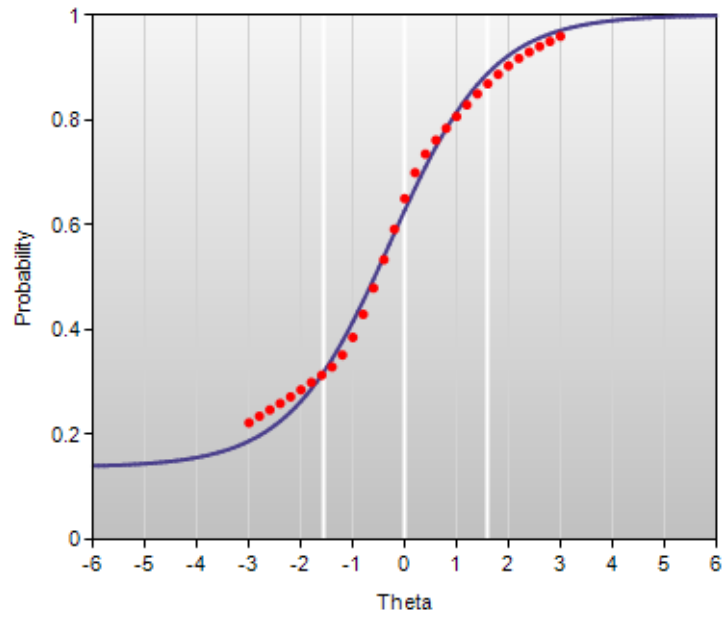
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English Language Arts Grade 7: IA00069
(EL292172)



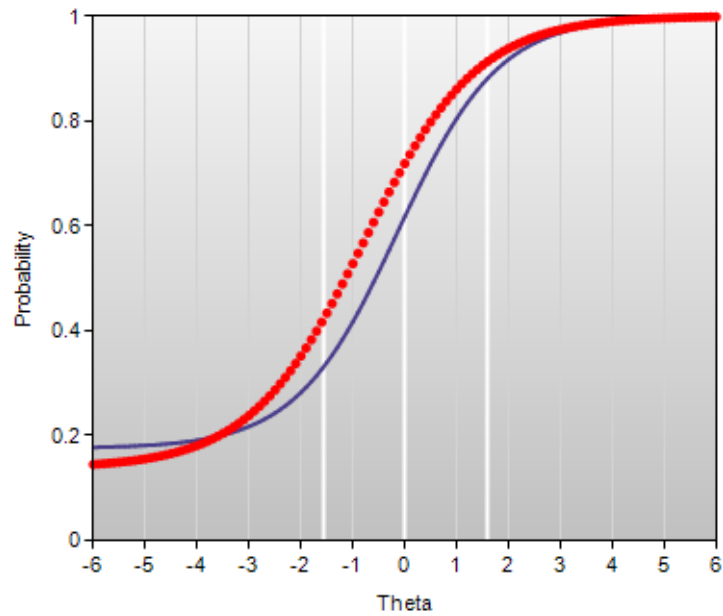
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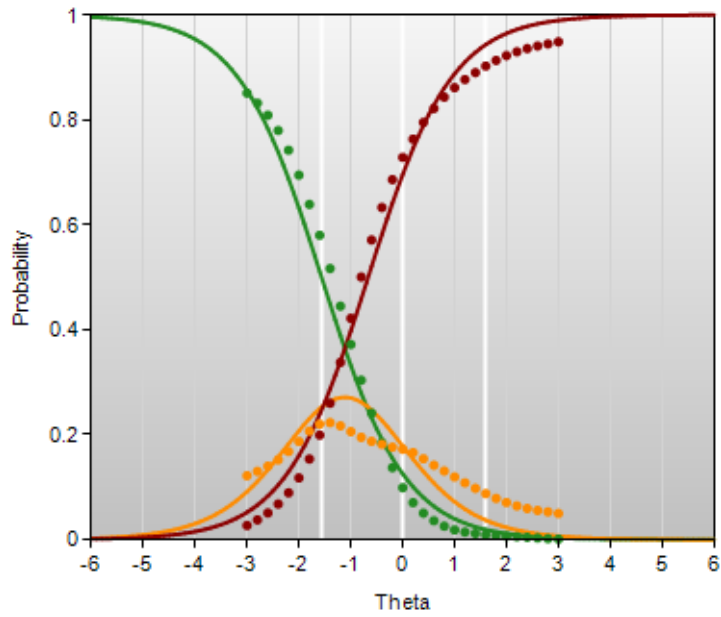
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(EL292176)



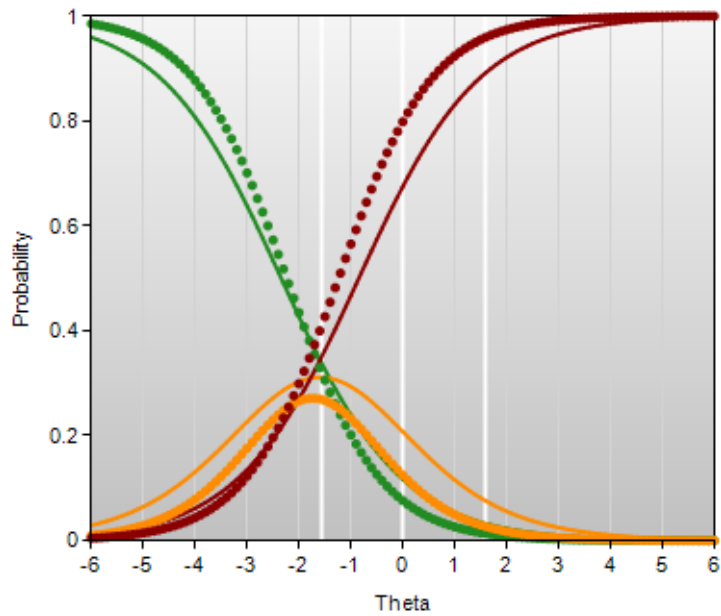
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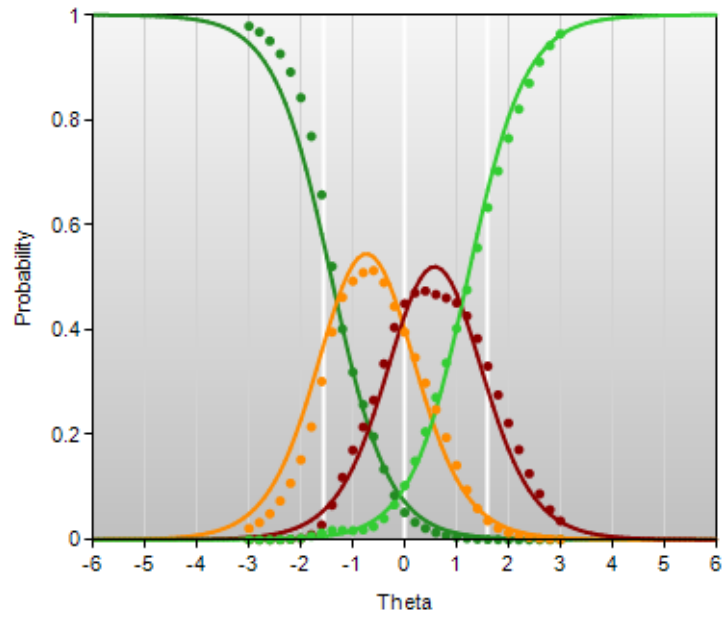
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English Language Arts Grade 7: IA00658
(EL628653398)



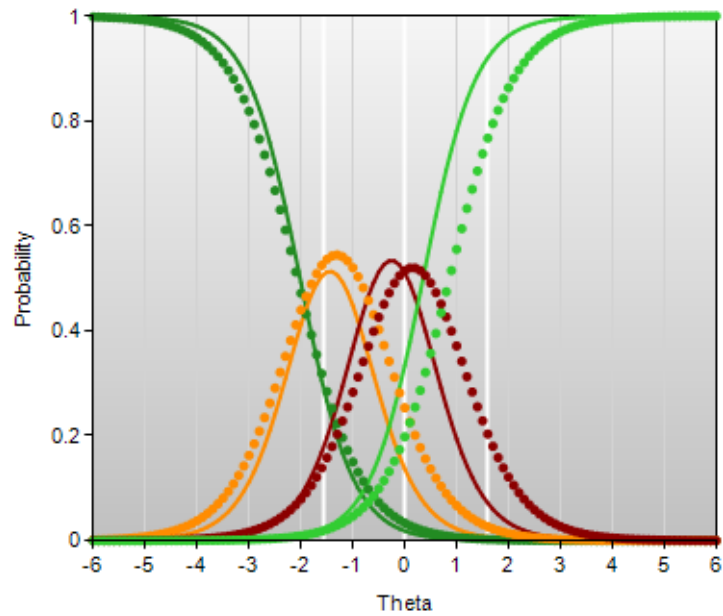
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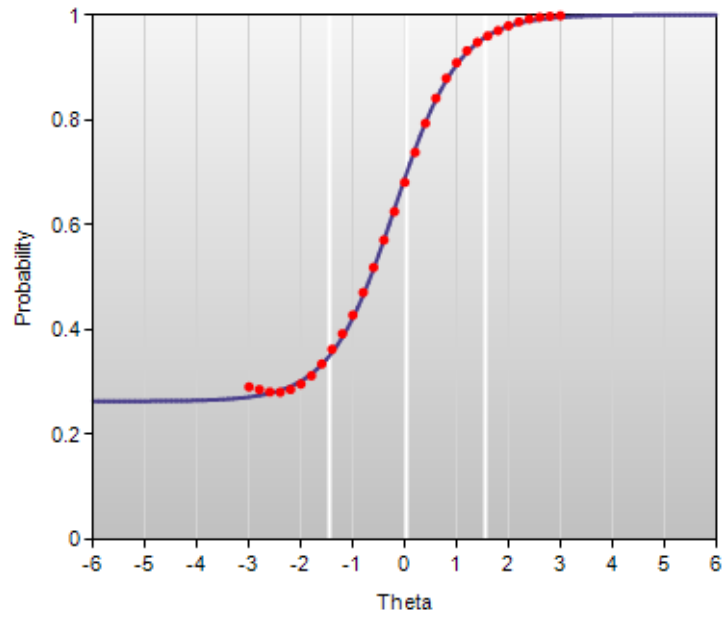
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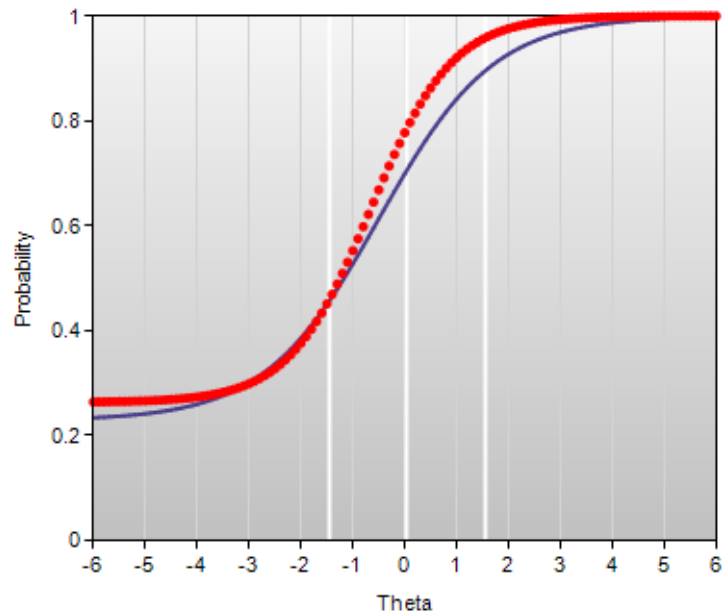
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English Language Arts Grade 8: IA00059
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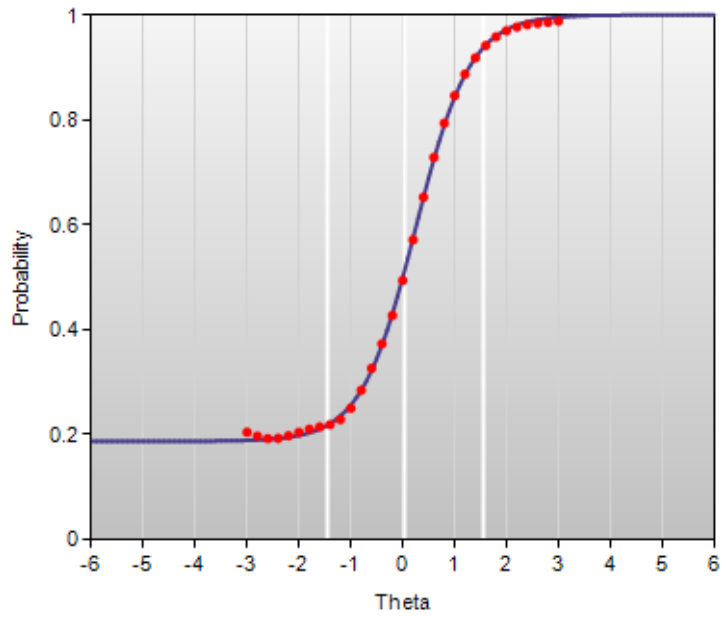
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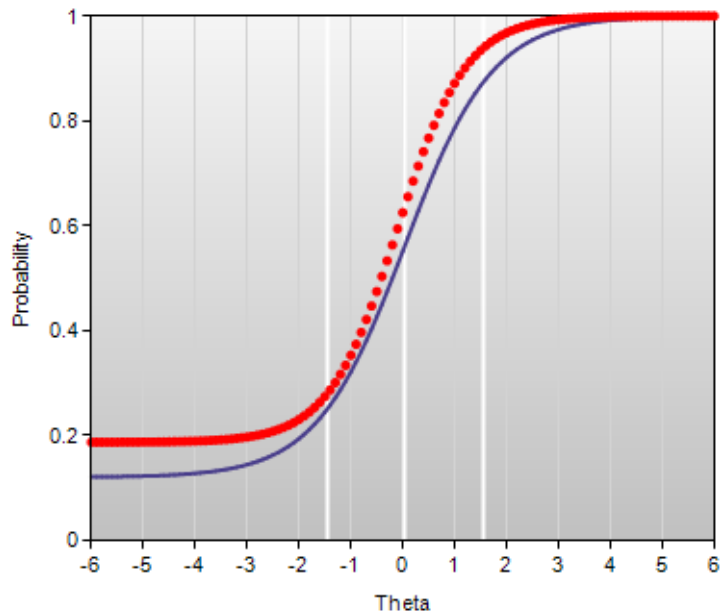
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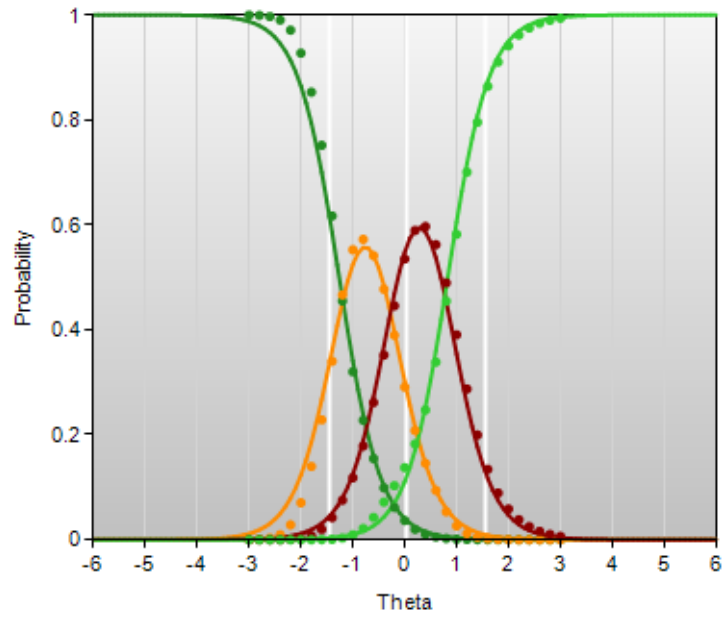
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English Language Arts Grade 8: IA00062
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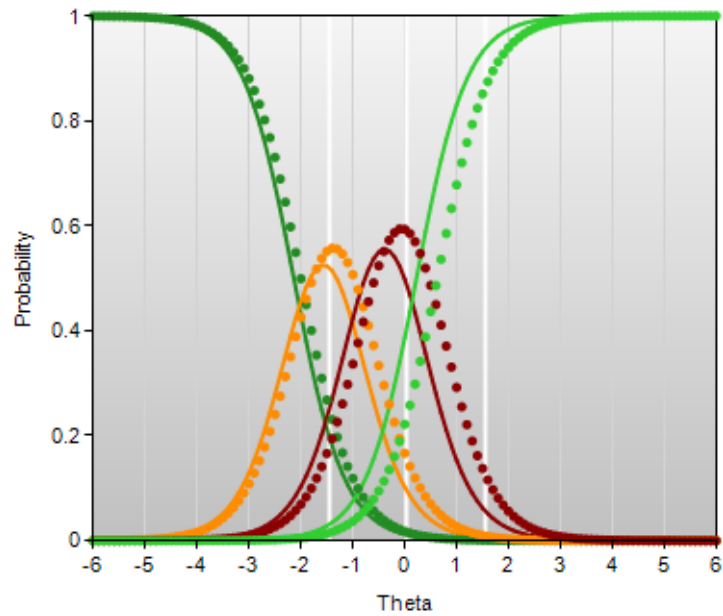
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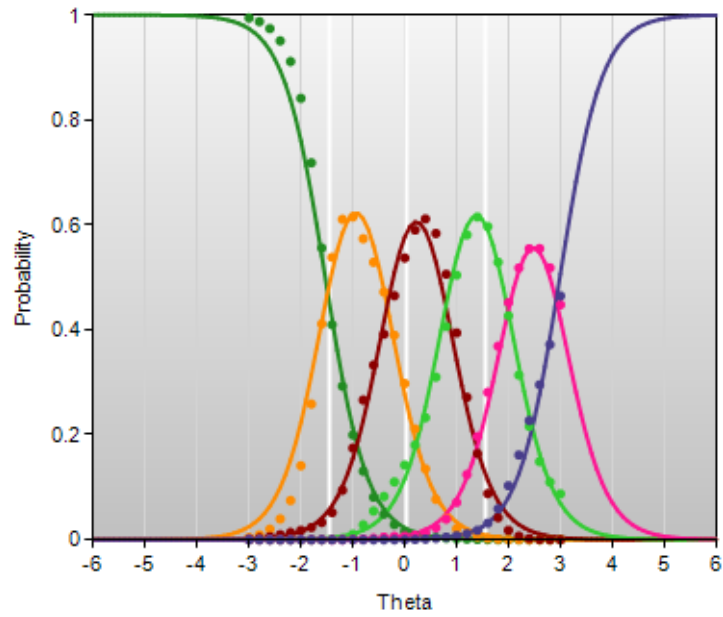
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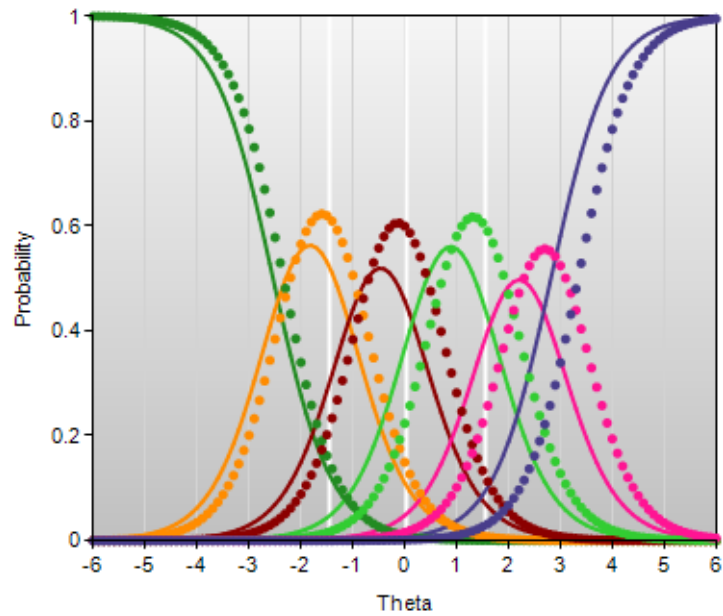
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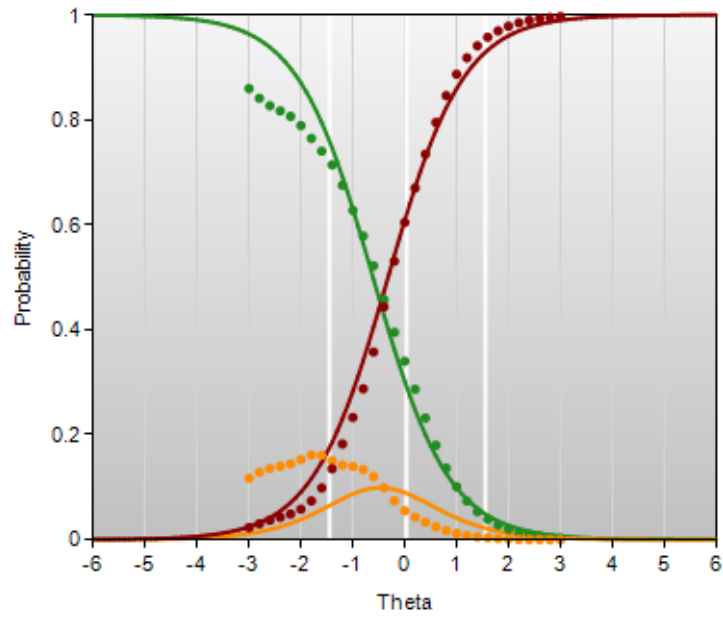
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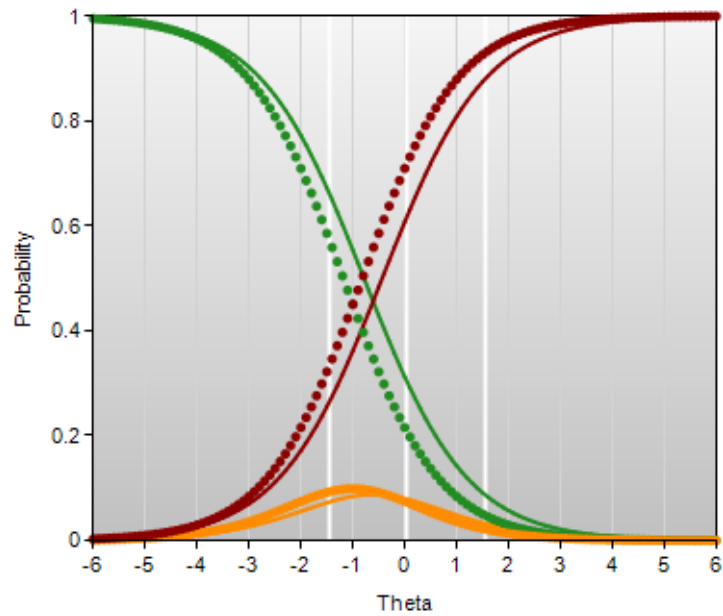
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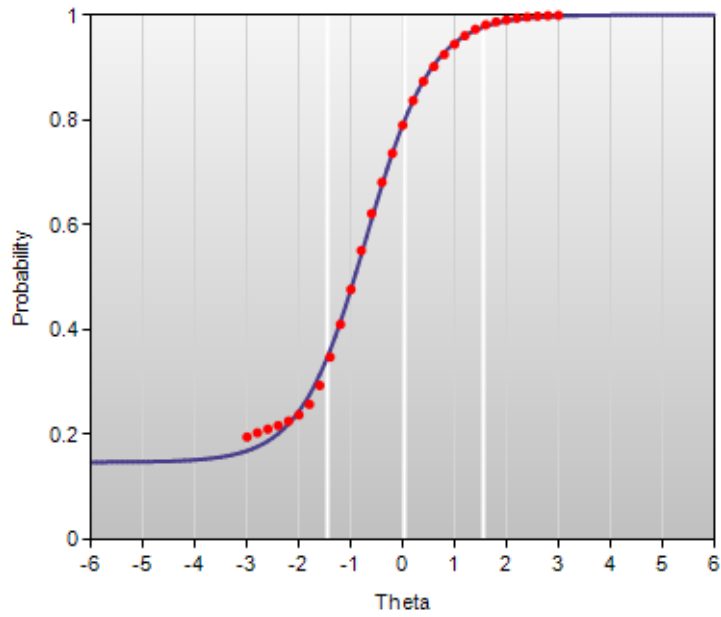
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English Language Arts Grade 8: IA00371
(EL623951471)



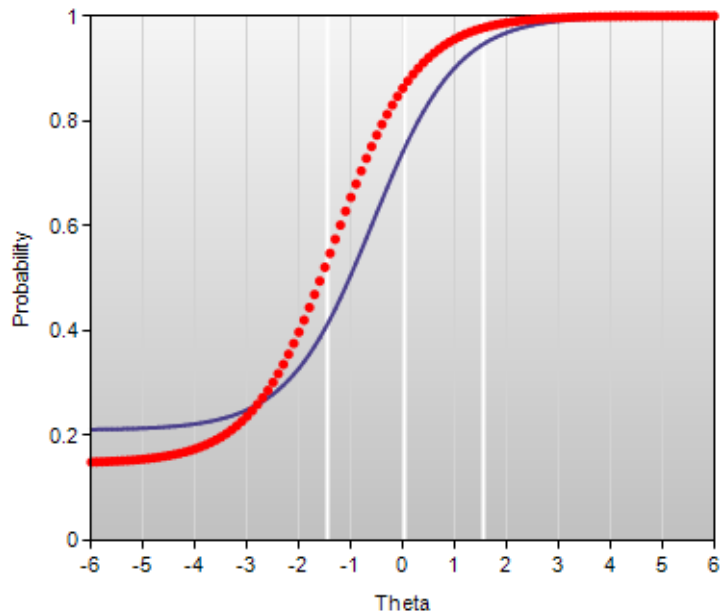
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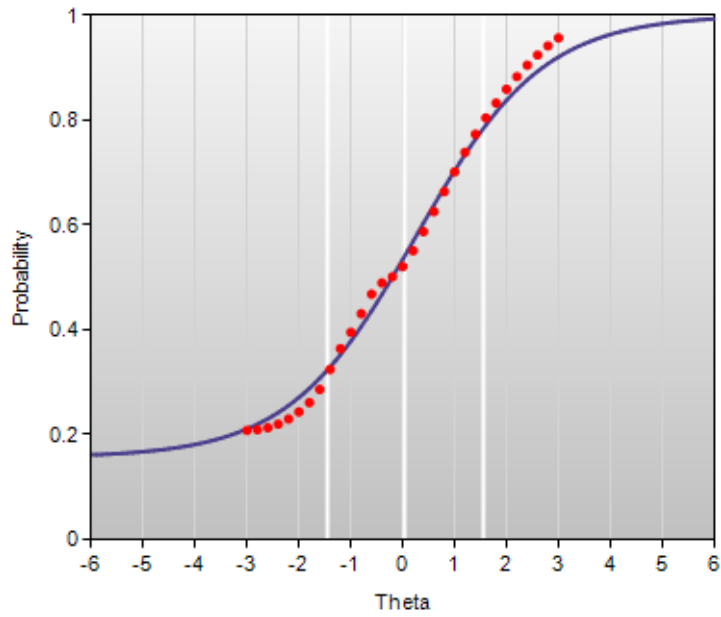
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English Language Arts Grade 8: IA00374
(EL623952612)



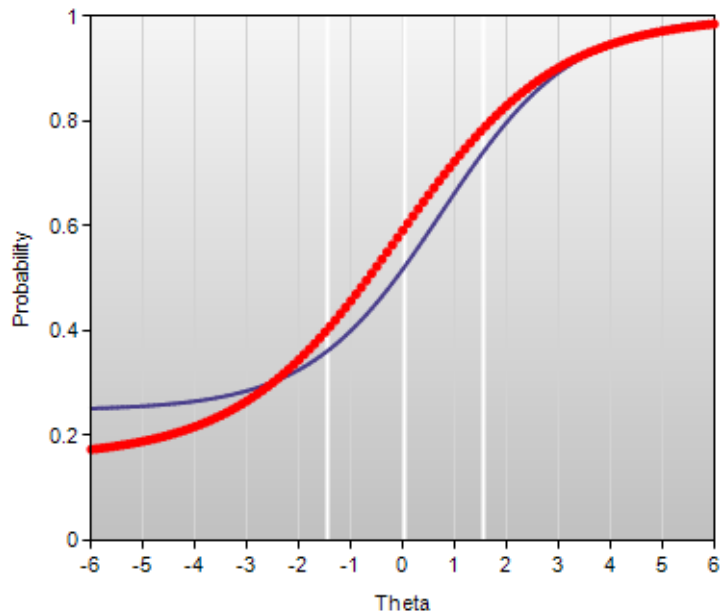
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English Language Arts Grade 8: IA00379
(EL623955757)



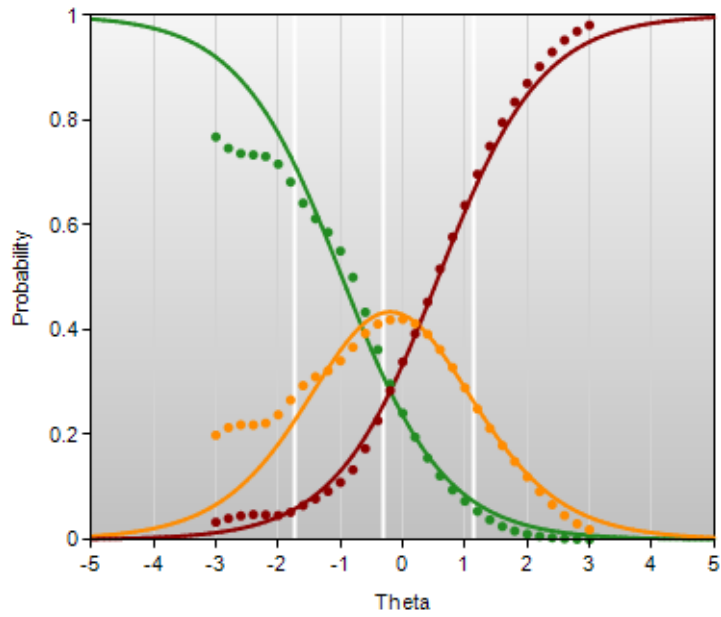
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English Language Arts Grade 8: IA00379
(EL623955757)



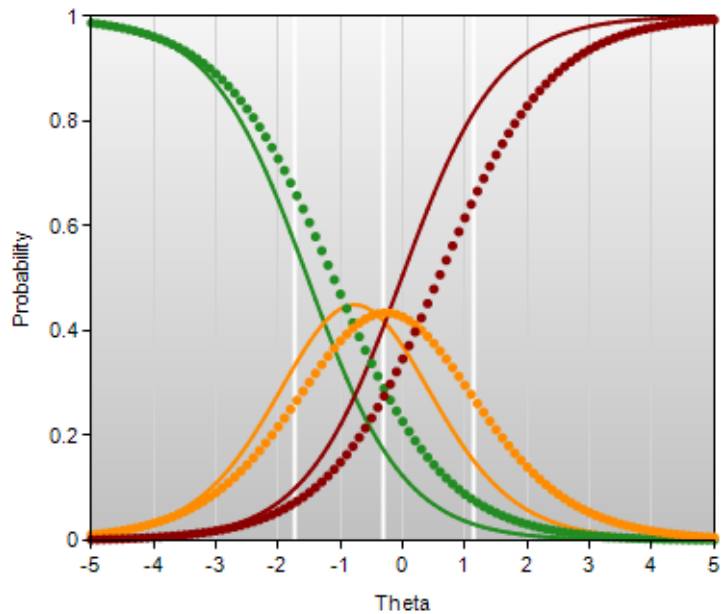
Initial Calibration

English Language Arts Grade 10: IA04110
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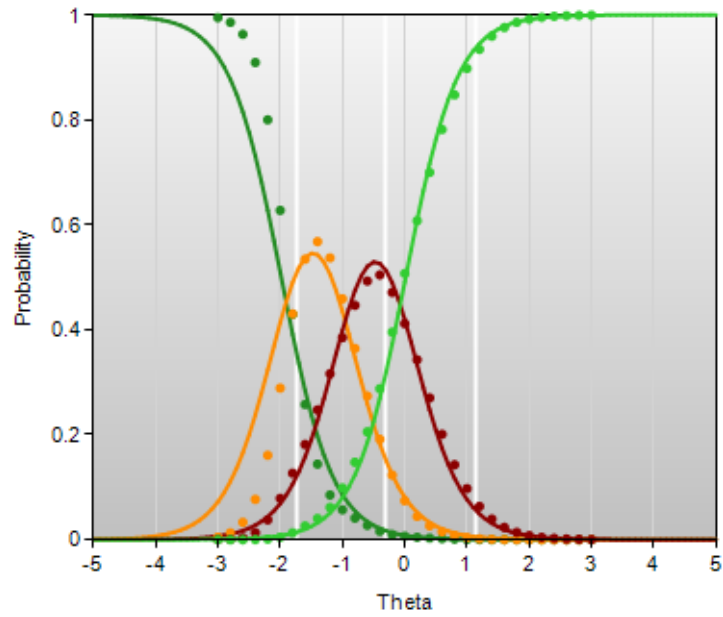
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English Language Arts Grade 10: IA04110
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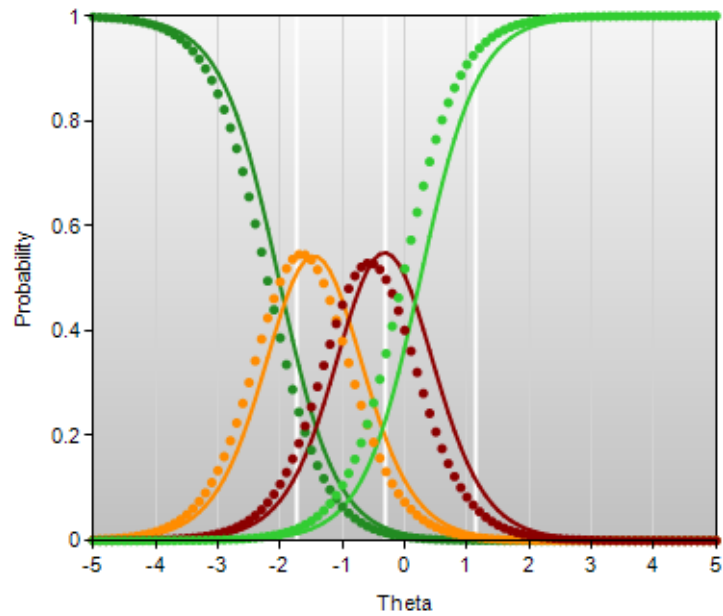
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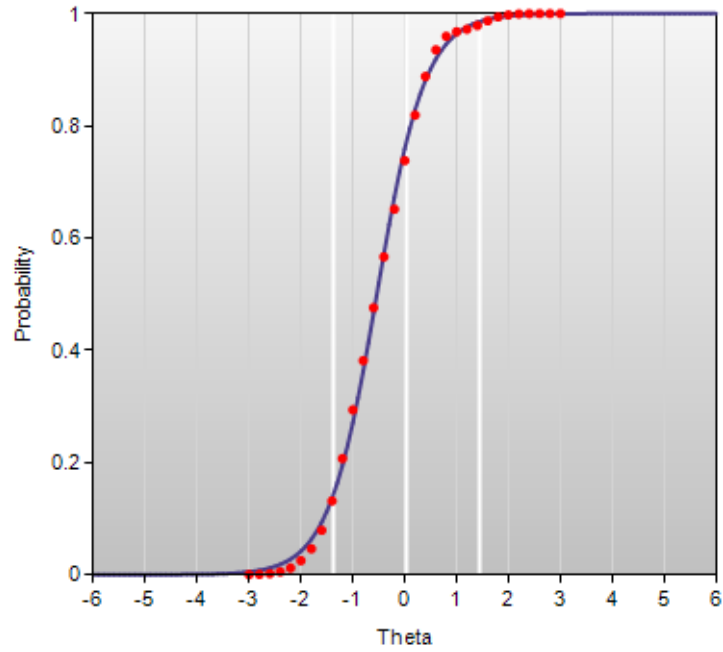
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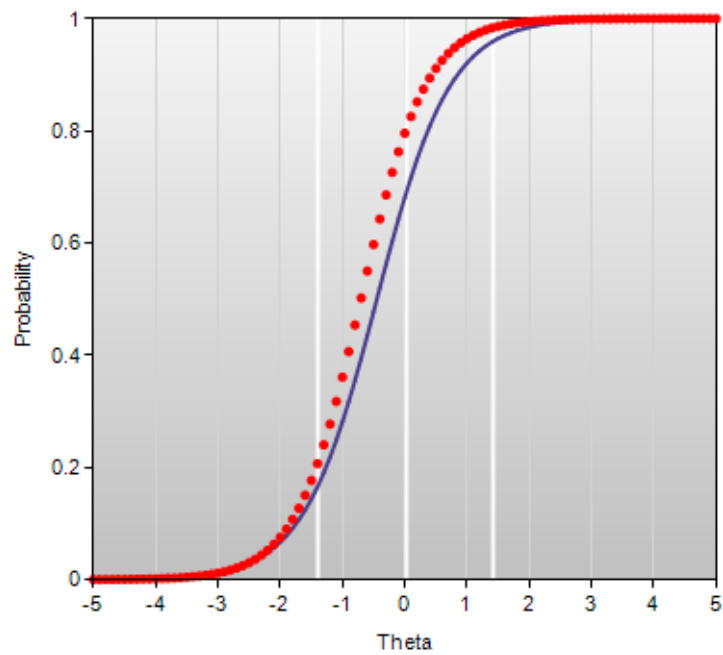
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Mathematics Grade 3: IA00930 (MA306359)



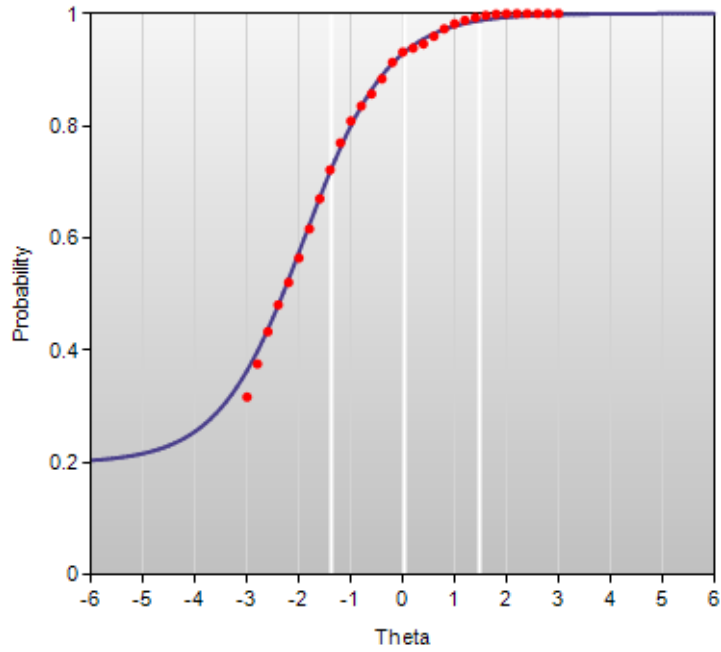
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Mathematics Grade 3: IA00930 (MA306359)



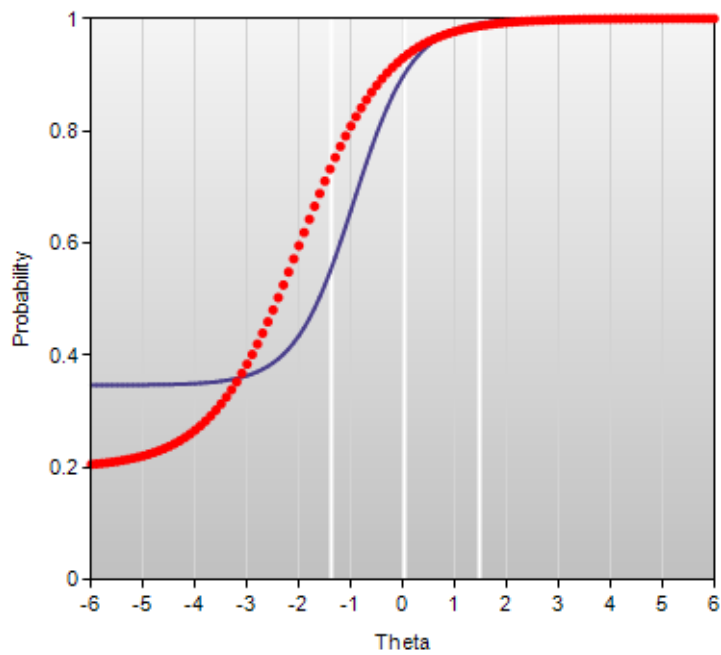
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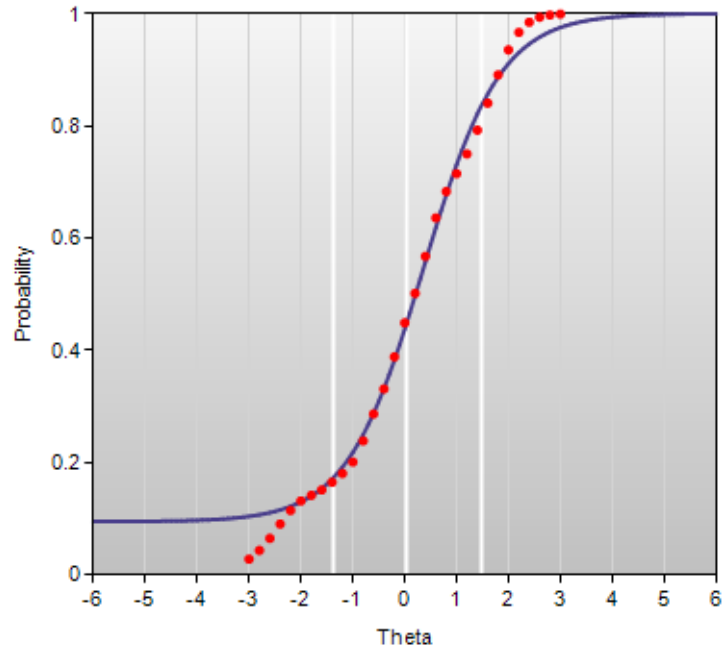
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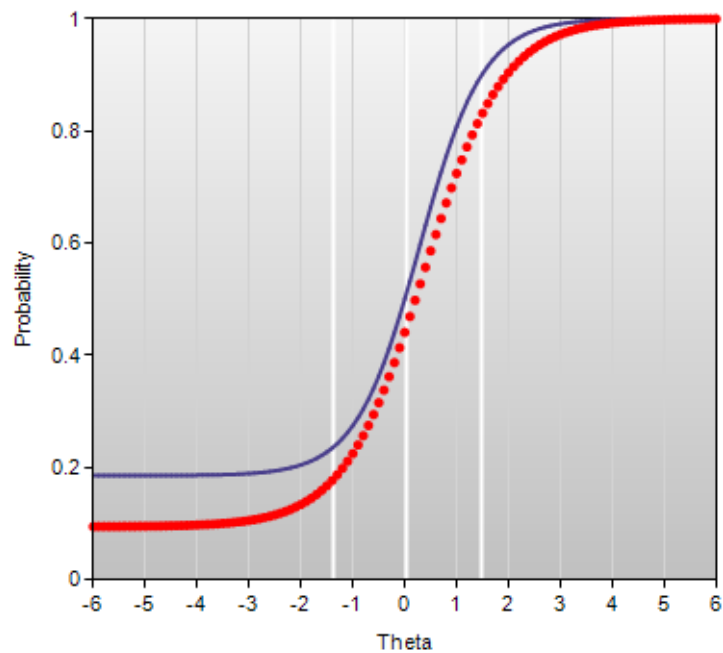
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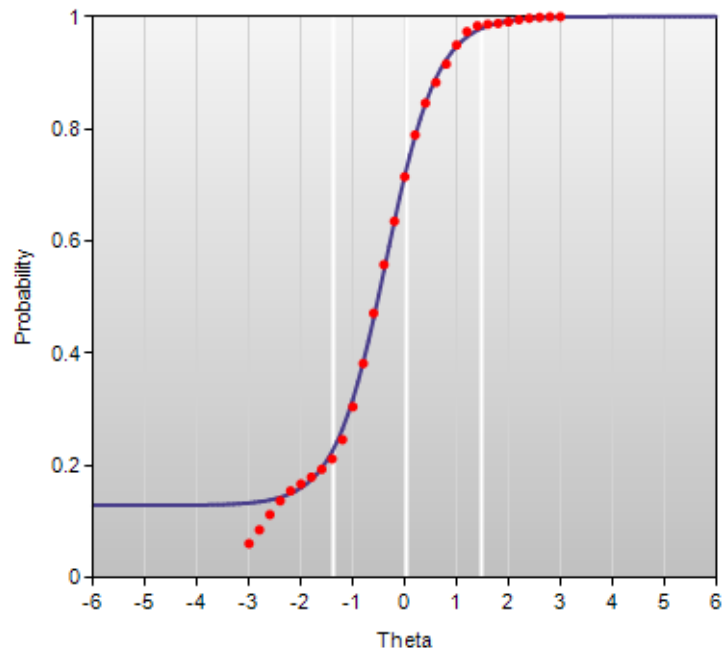
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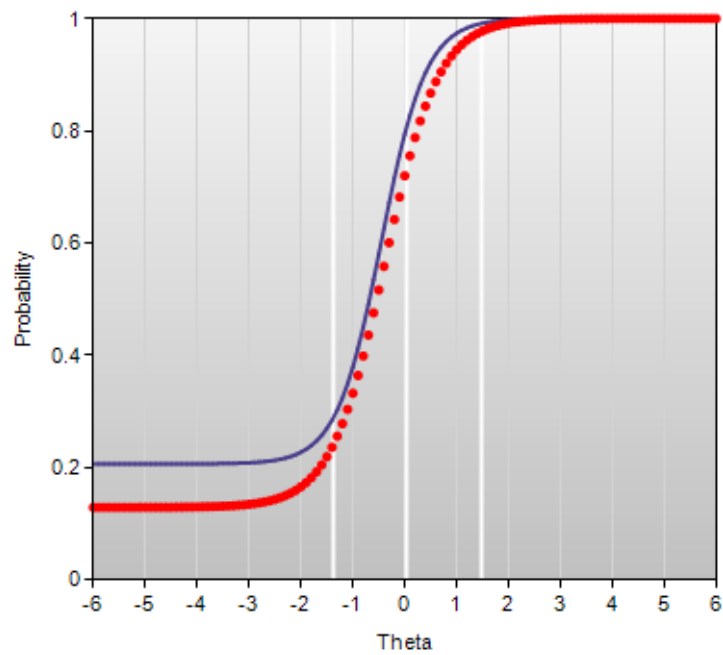
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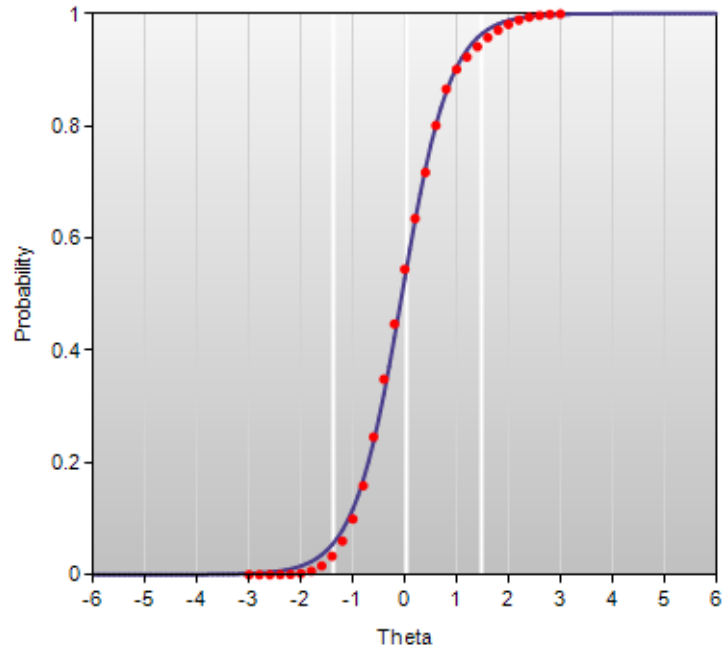
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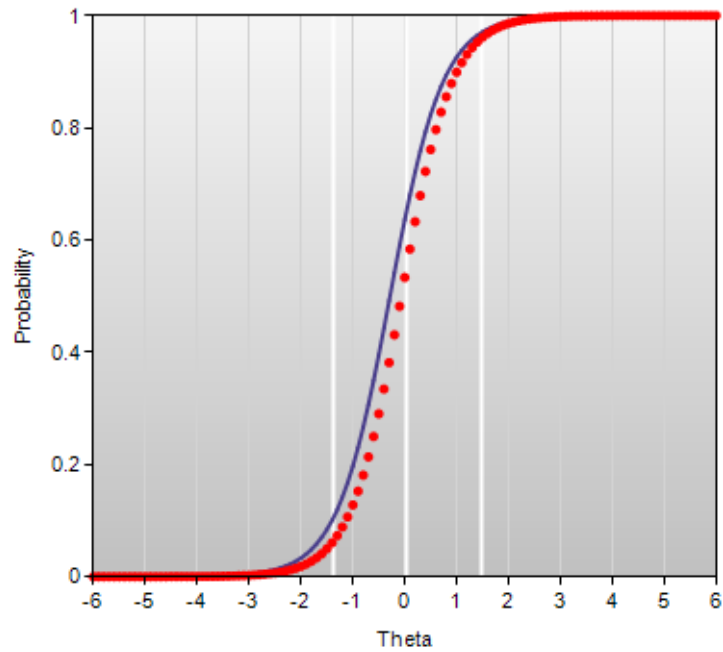
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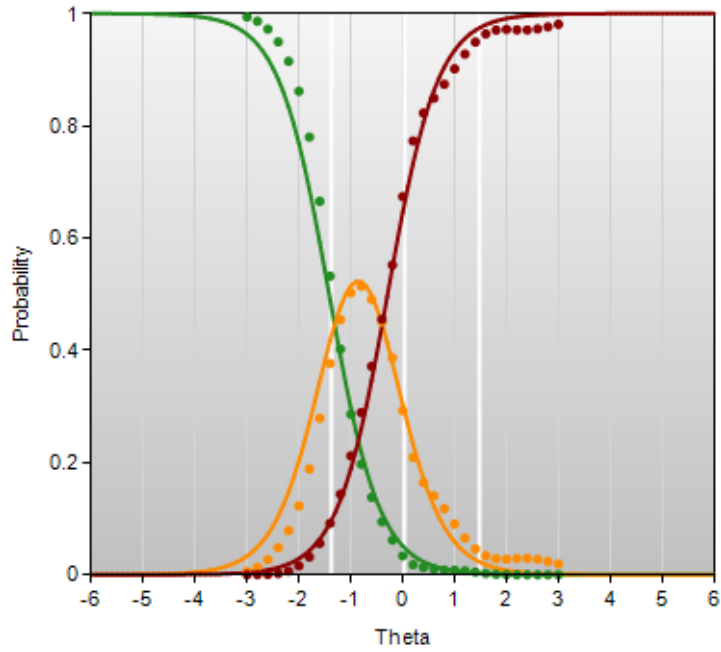
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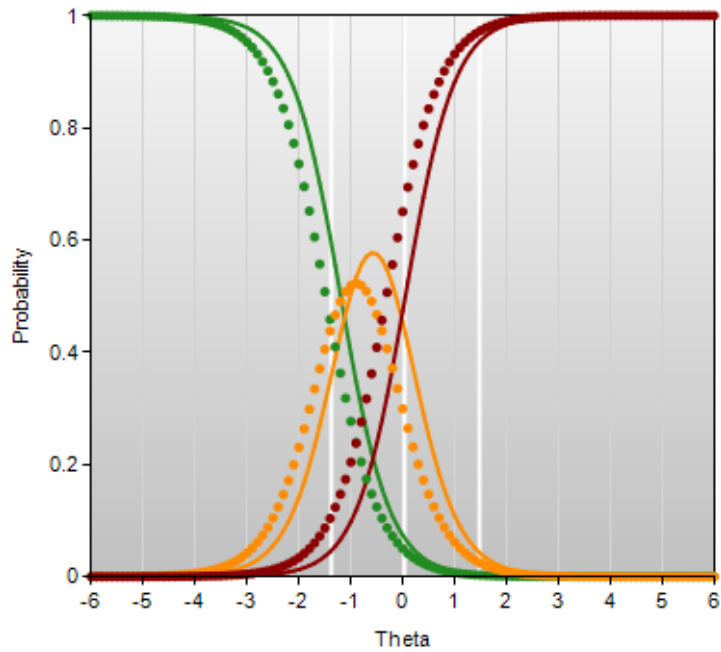
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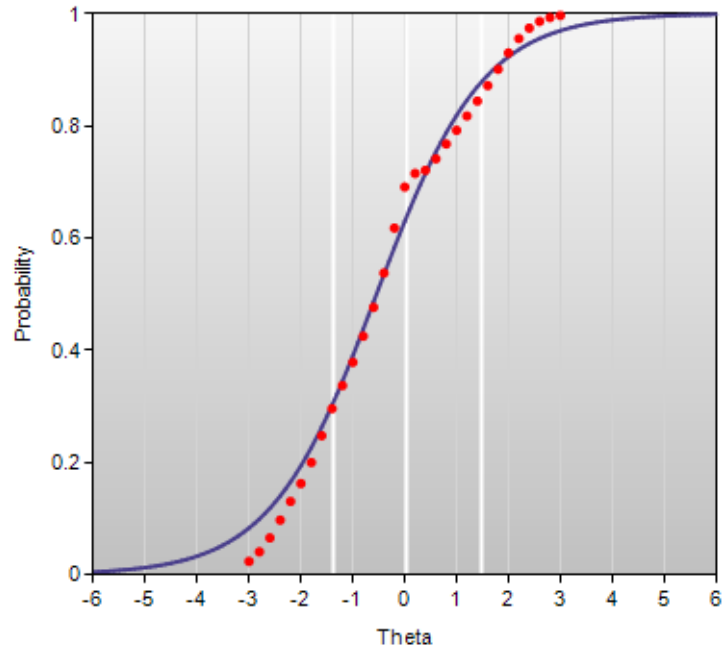
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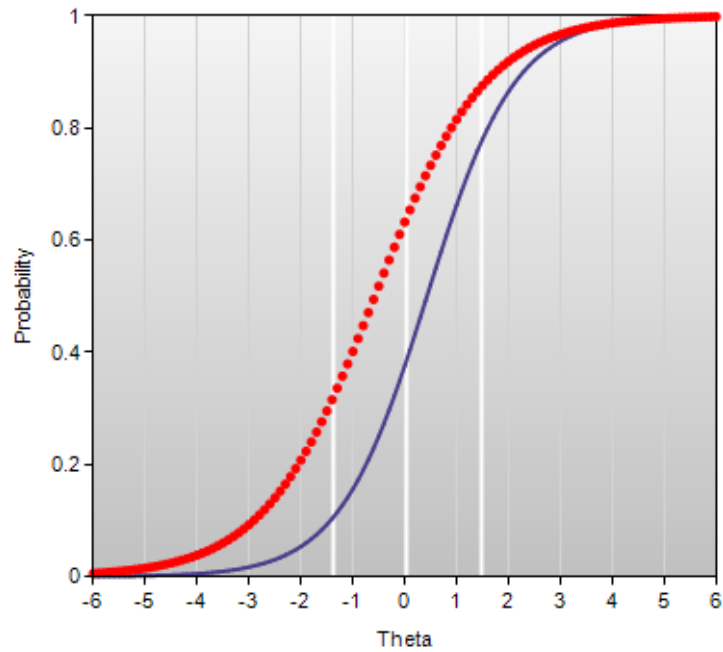
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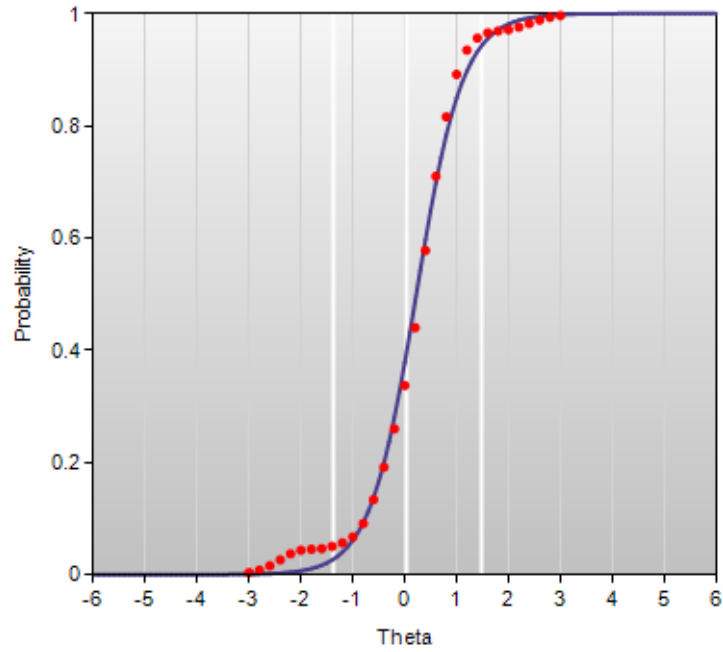
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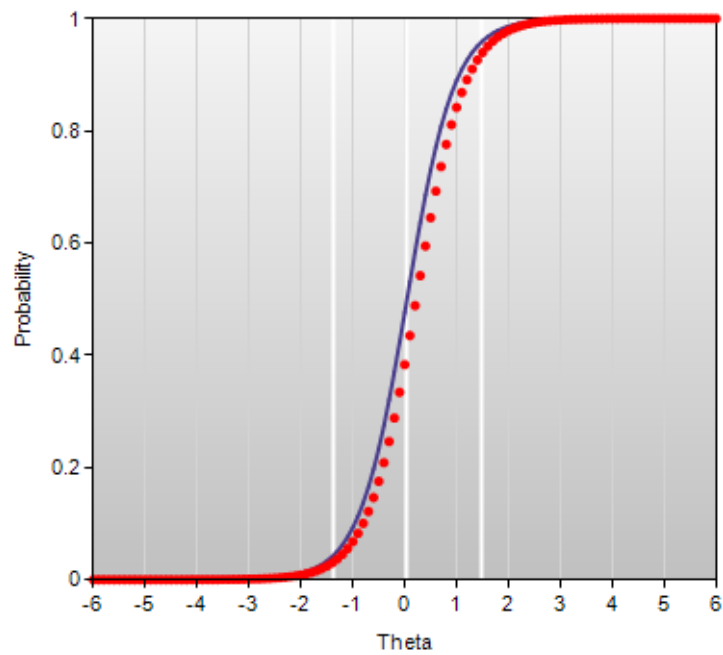
Initial Calibration

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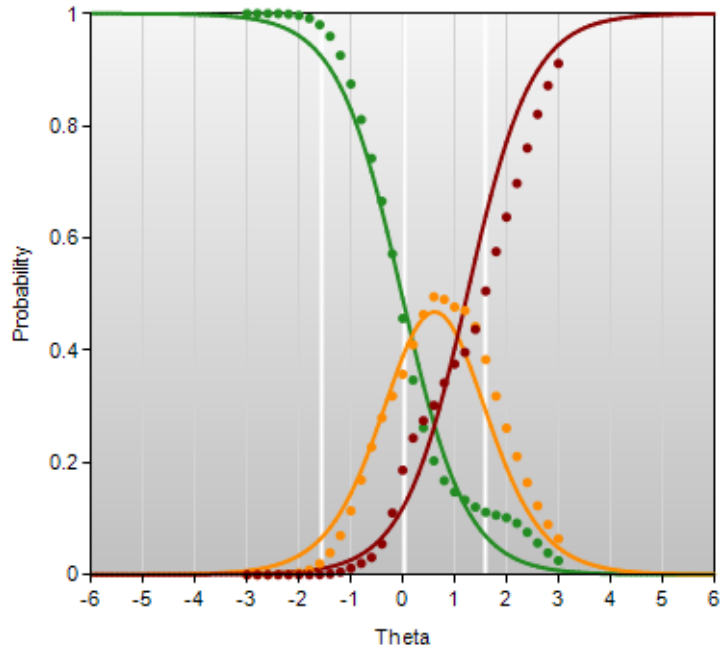
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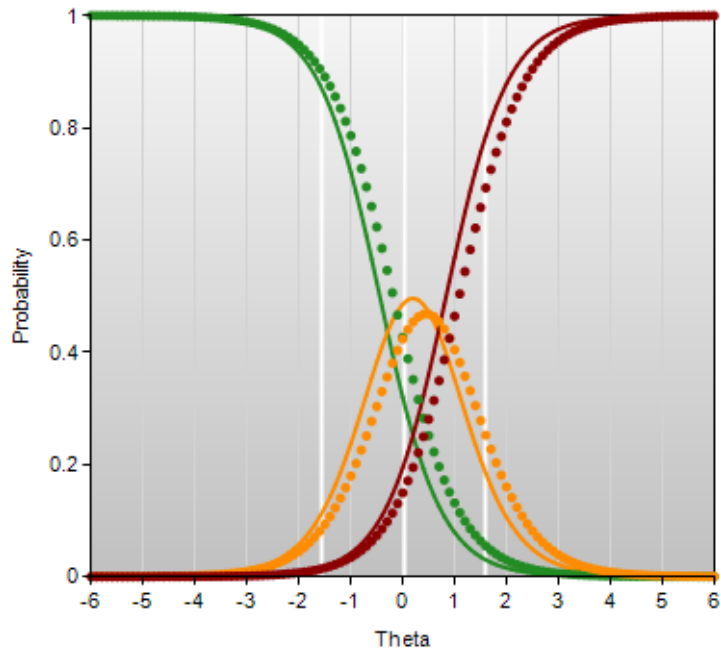
Initial Calibration

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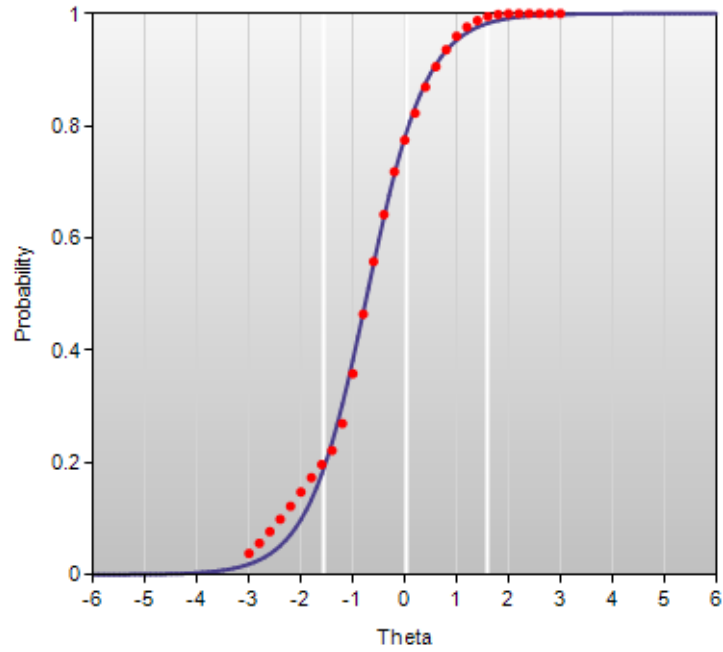
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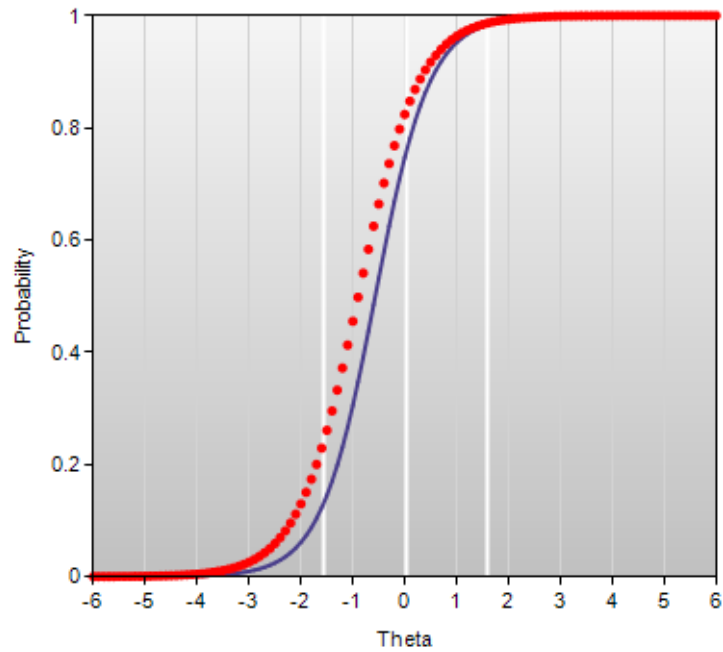
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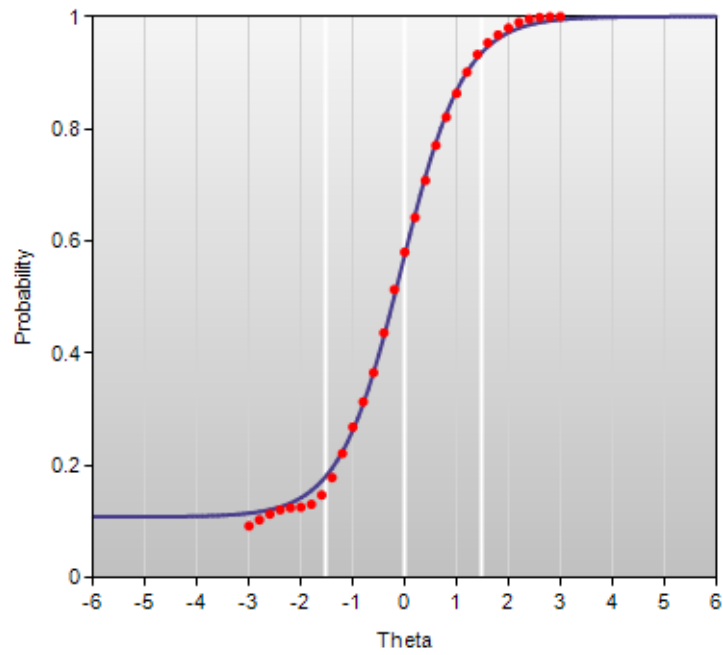
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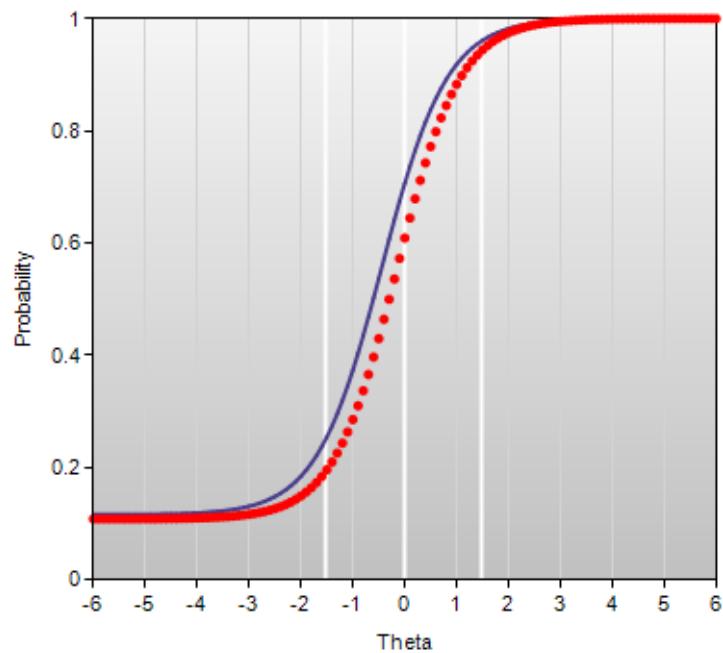
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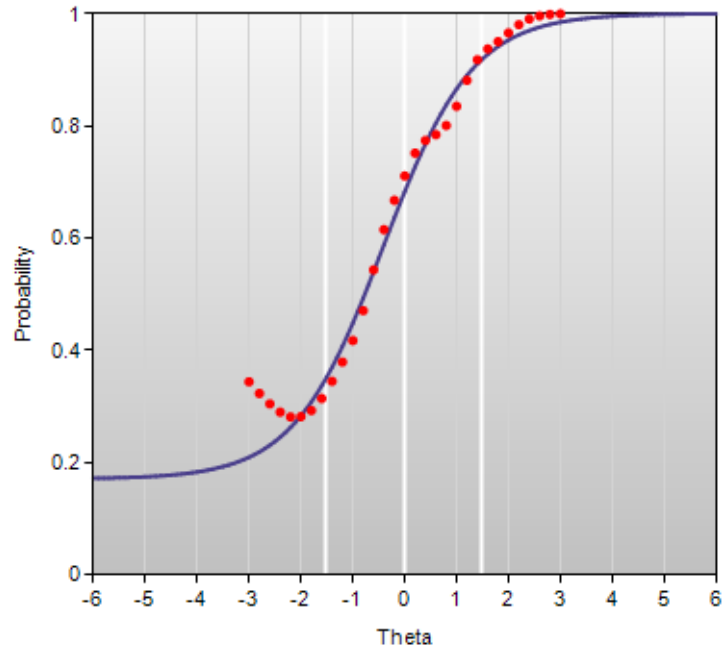
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Mathematics Grade 6: IA00827 (MA287186)



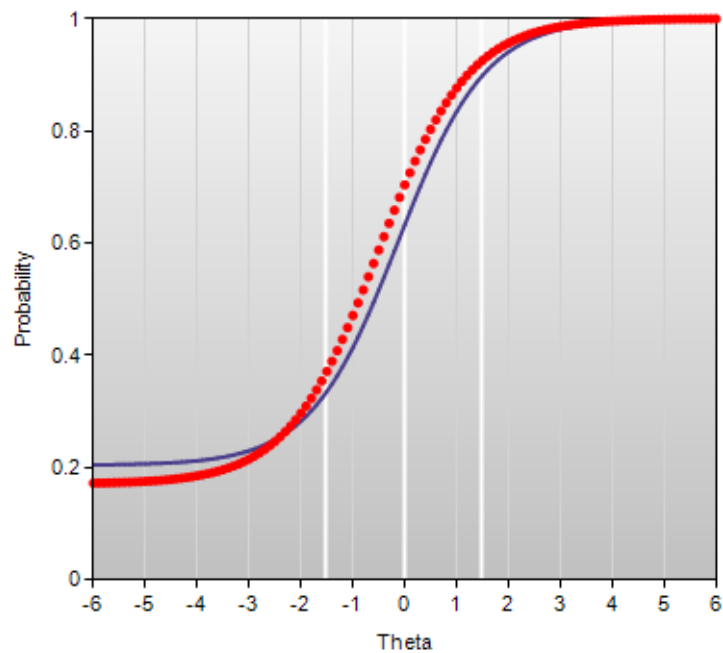
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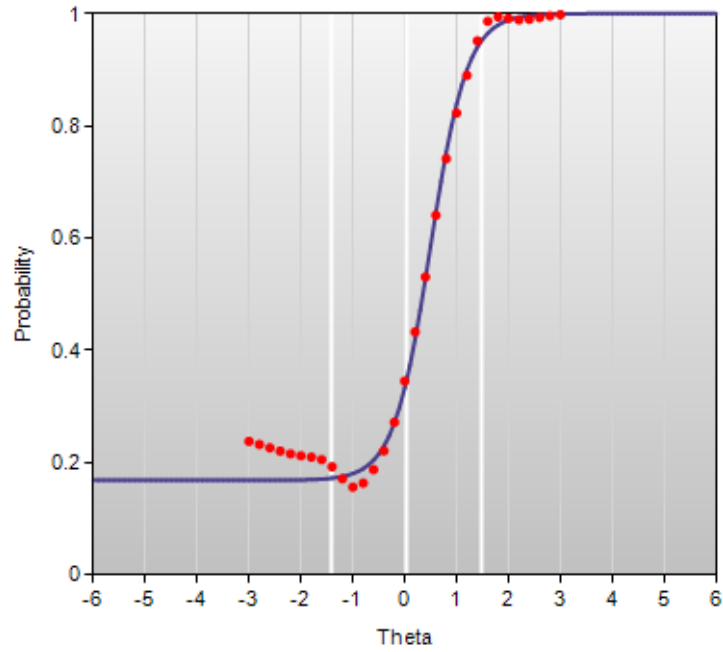
Beta Chart

Mathematics Grade 6: IA02037 (MA217493)



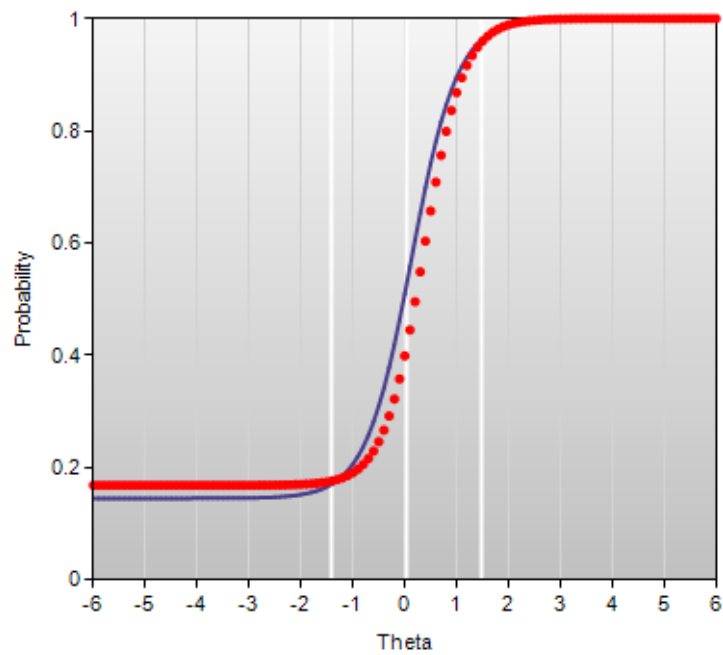
Initial Calibration

Mathematics Grade 7: IA00796 (MA259267)



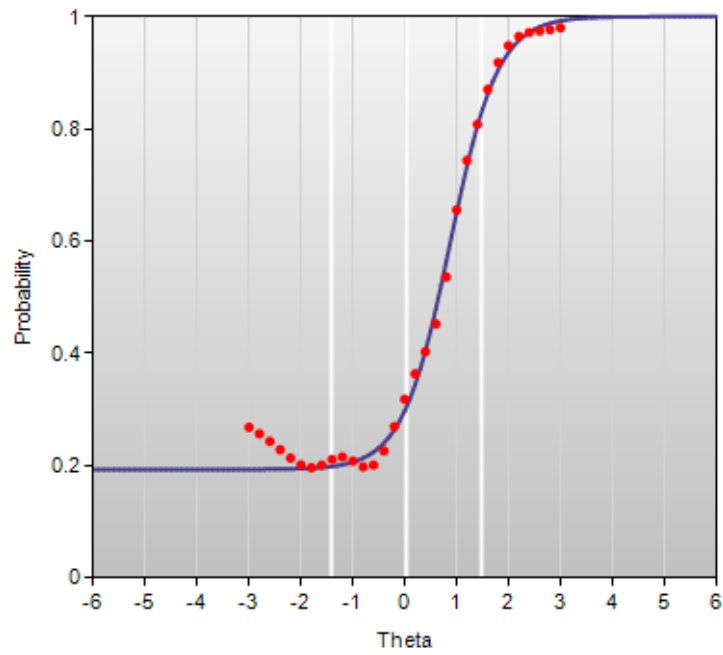
Beta Chart

Mathematics Grade 7: IA00796 (MA259267)



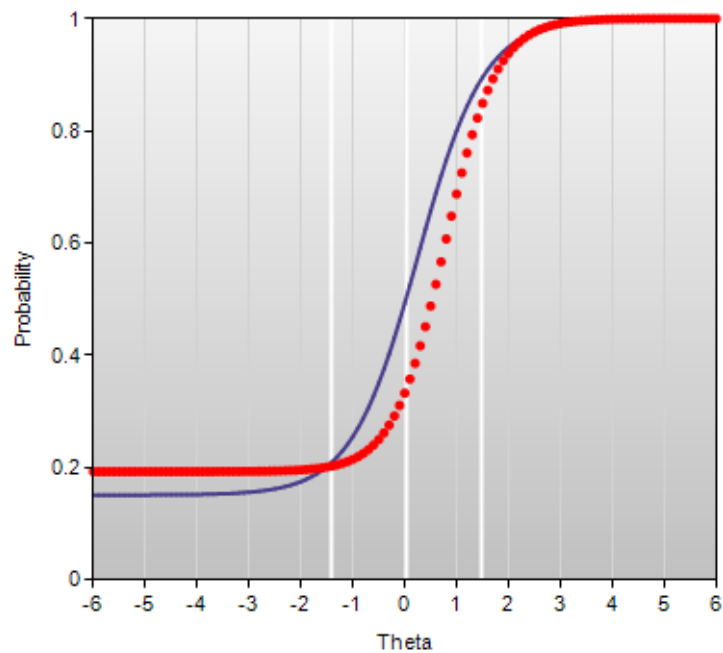
Initial Calibration

Mathematics Grade 7: IA01011 (MA311109)



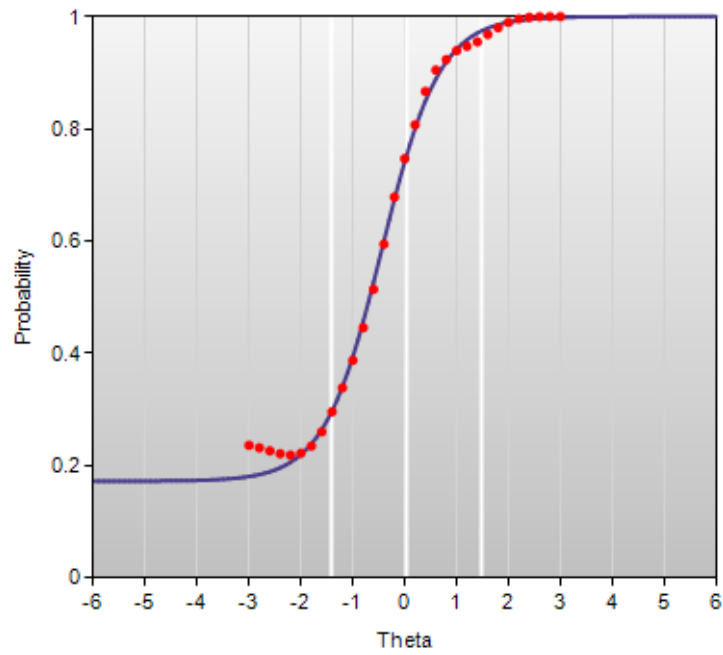
Beta Chart

Mathematics Grade 7: IA01011 (MA311109)



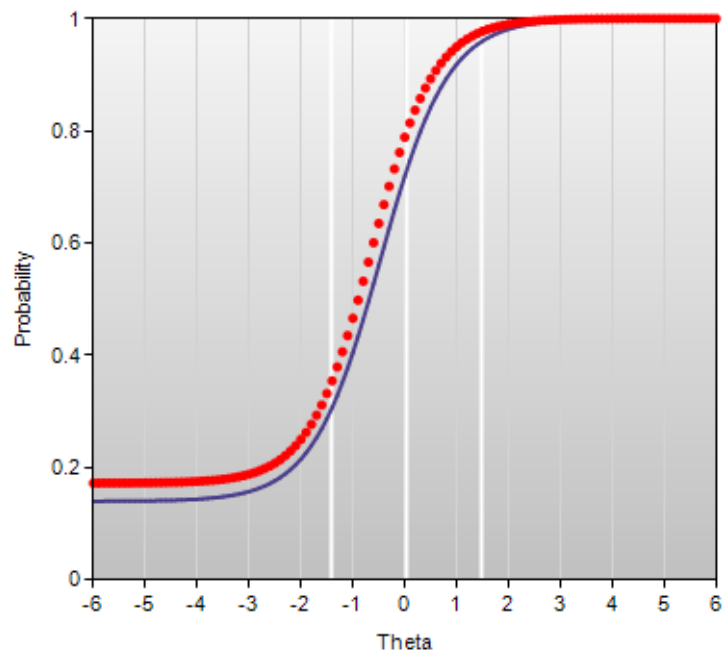
Initial Calibration

Mathematics Grade 7: IA04486 (MA227988)



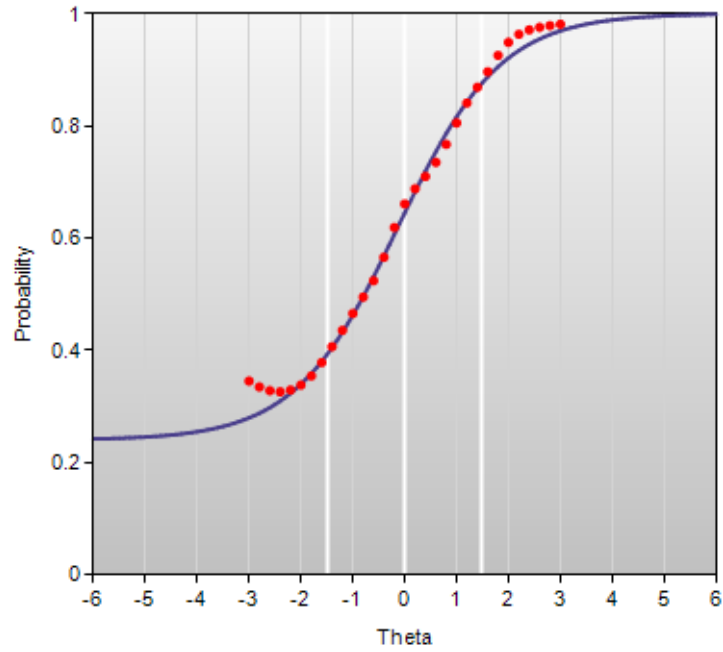
Beta Chart

Mathematics Grade 7: IA04486 (MA227988)



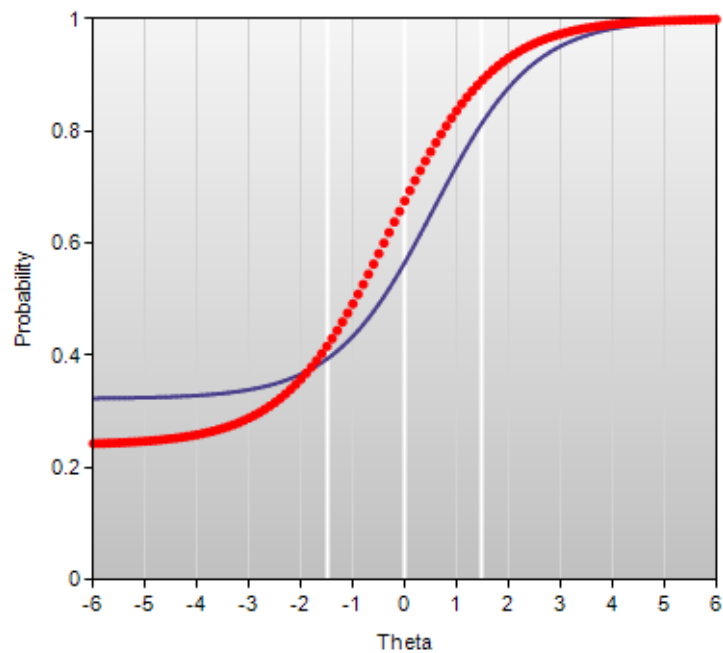
Initial Calibration

Mathematics Grade 8: IA00979 (MA307472)



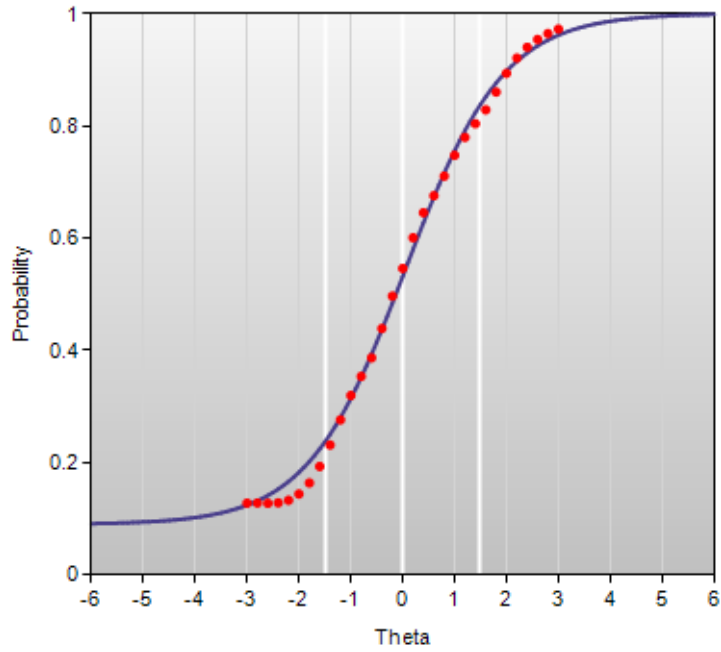
Beta Chart

Mathematics Grade 8: IA00979 (MA307472)



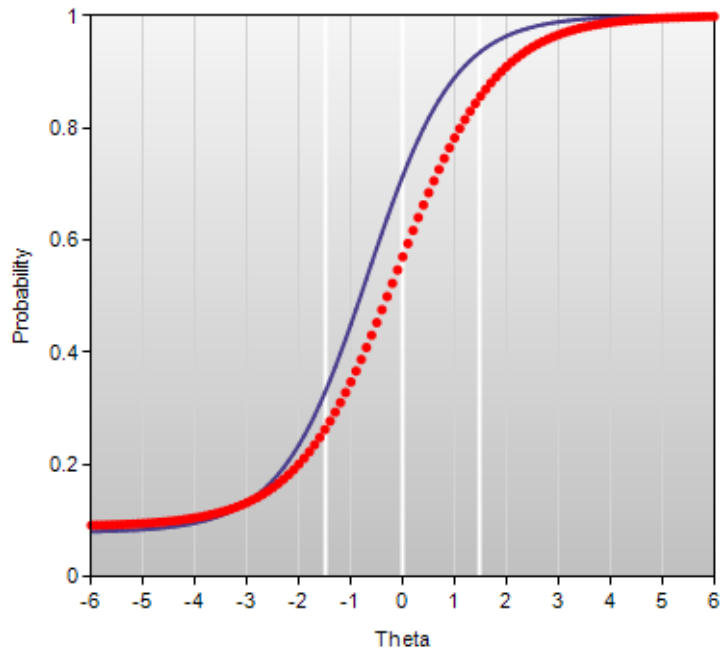
Initial Calibration

Mathematics Grade 8: IA01042 (MA311448)



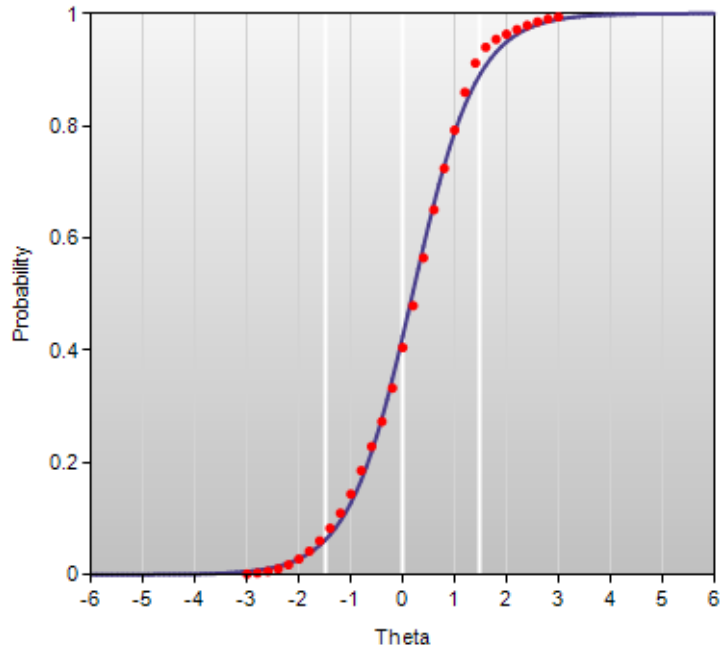
Beta Chart

Mathematics Grade 8: IA01042 (MA311448)



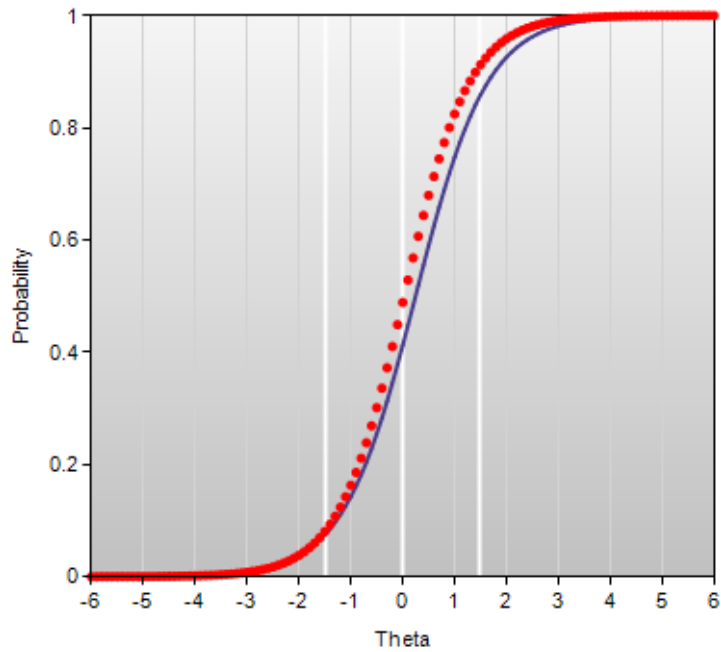
Initial Calibration

Mathematics Grade 8: IA02495 (MA309741)



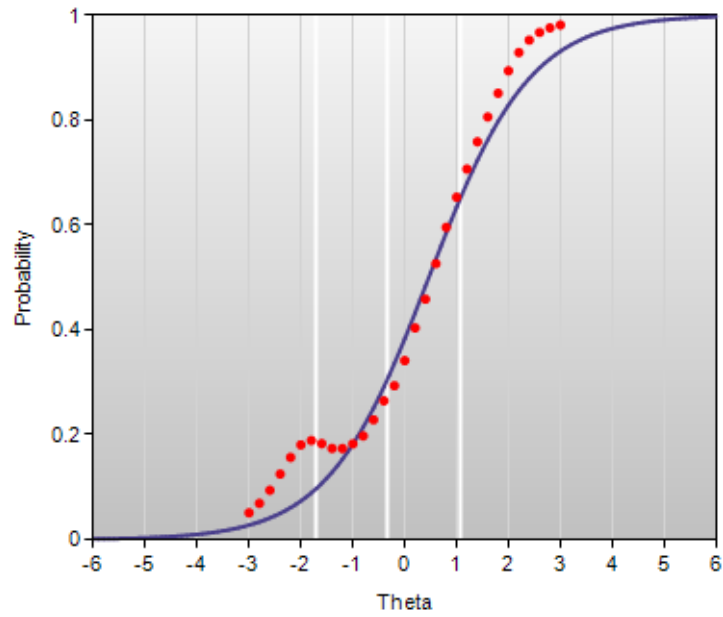
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Mathematics Grade 8: IA02495 (MA309741)



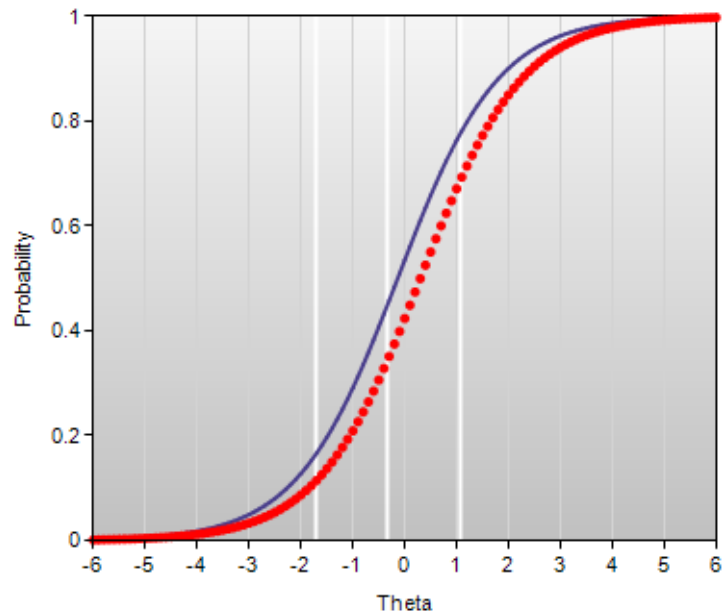
Initial Calibration

Mathematics Grade 10: IA04800 (MA717740737)



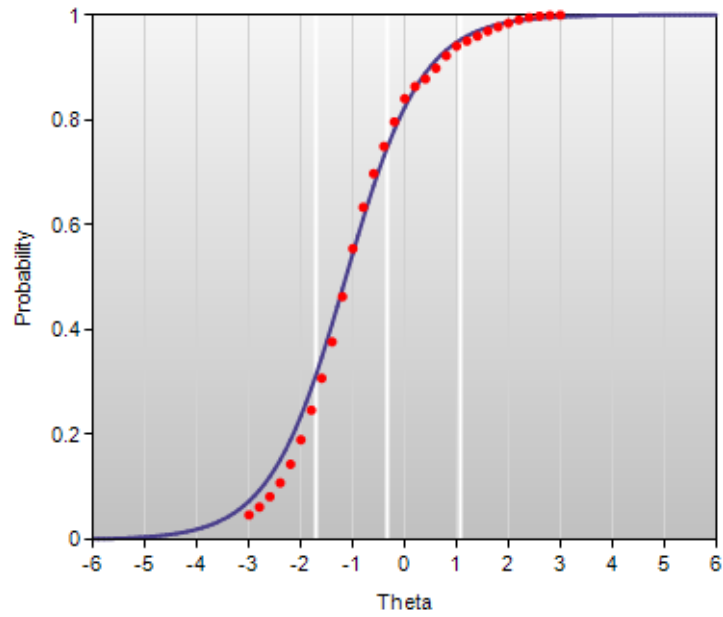
Beta Chart

Mathematics Grade 10: IA04800 (MA717740737)



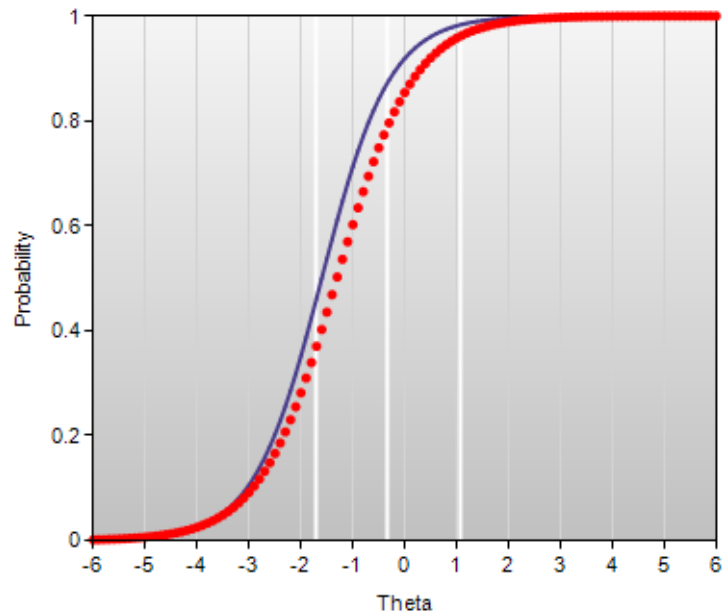
Initial Calibration

Mathematics Grade 10: IA04846 (MA735743236)



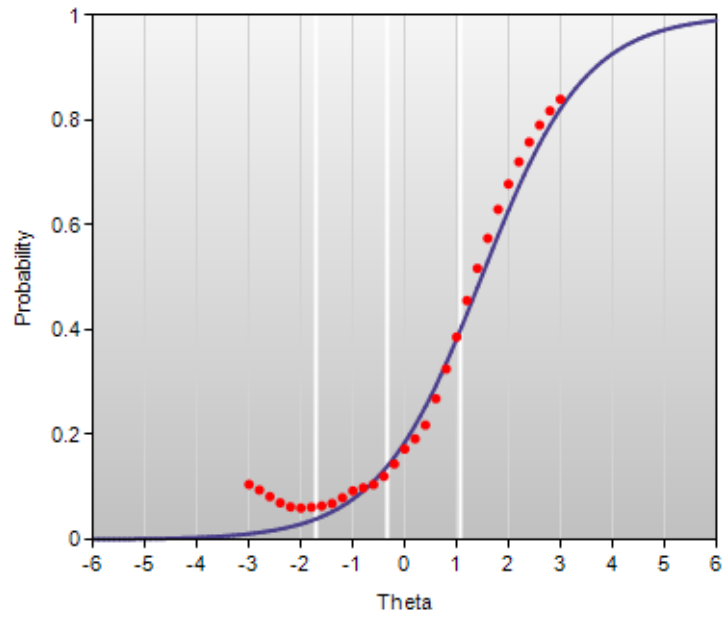
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Mathematics Grade 10: IA04846 (MA735743236)



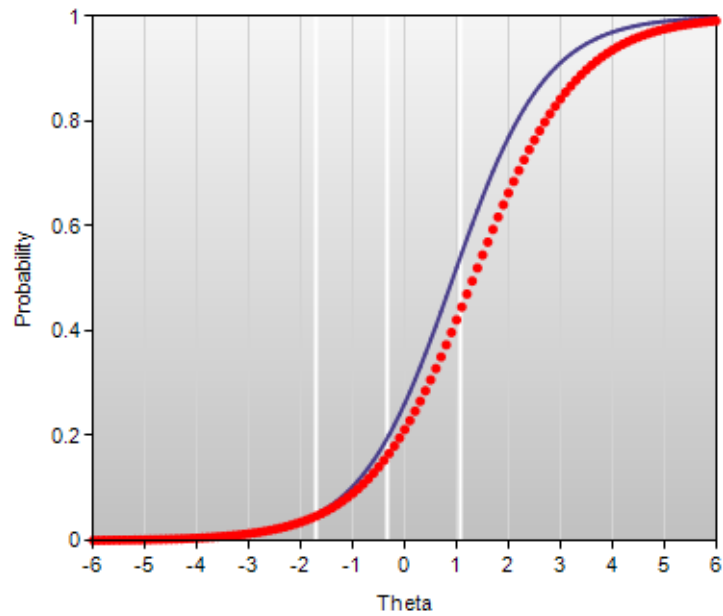
Initial Calibration

Mathematics Grade 10: IA04993 (MA801434971)



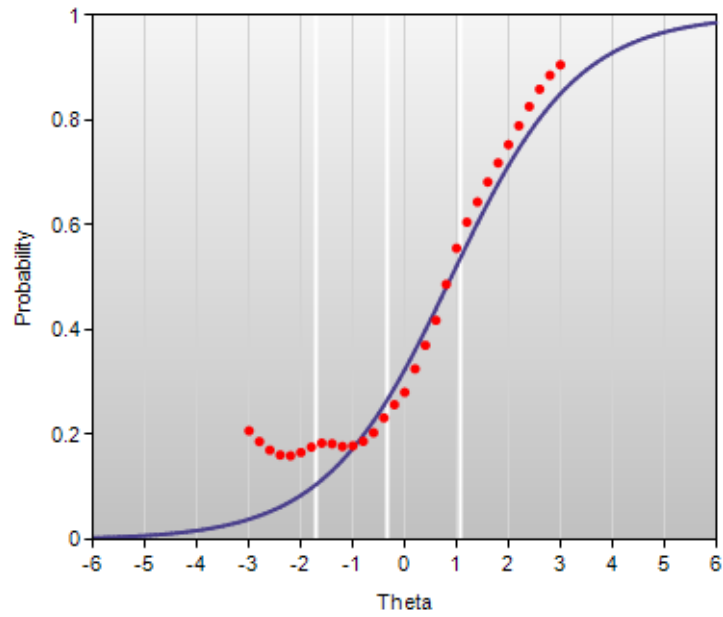
Beta Chart

Mathematics Grade 10: IA04993 (MA801434971)



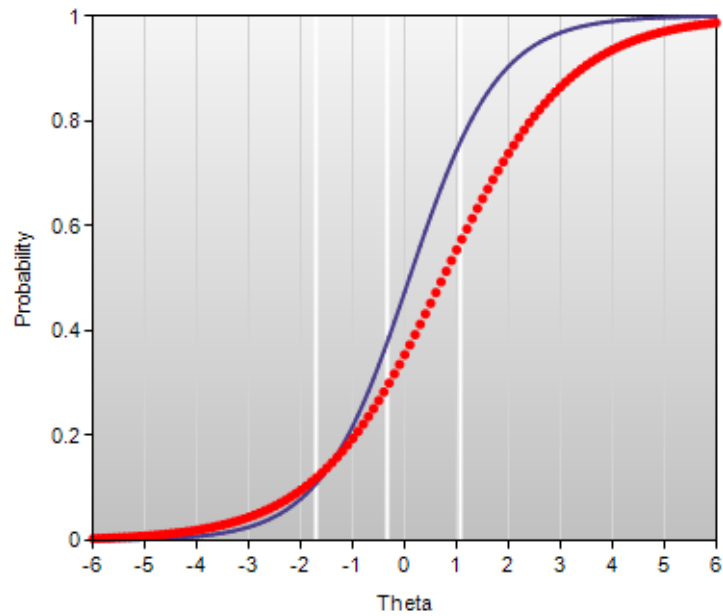
Initial Calibration

Mathematics Grade 10: IA05117 (MA804678931)



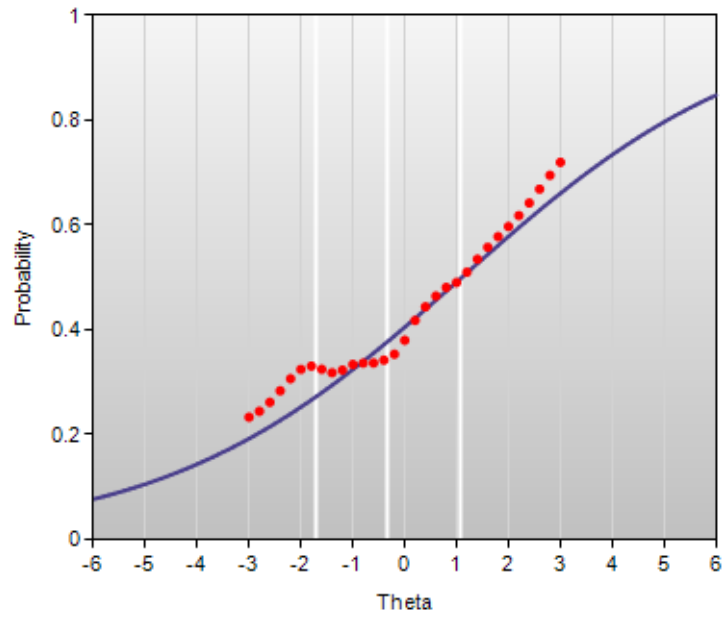
Beta Chart

Mathematics Grade 10: IA05117 (MA804678931)



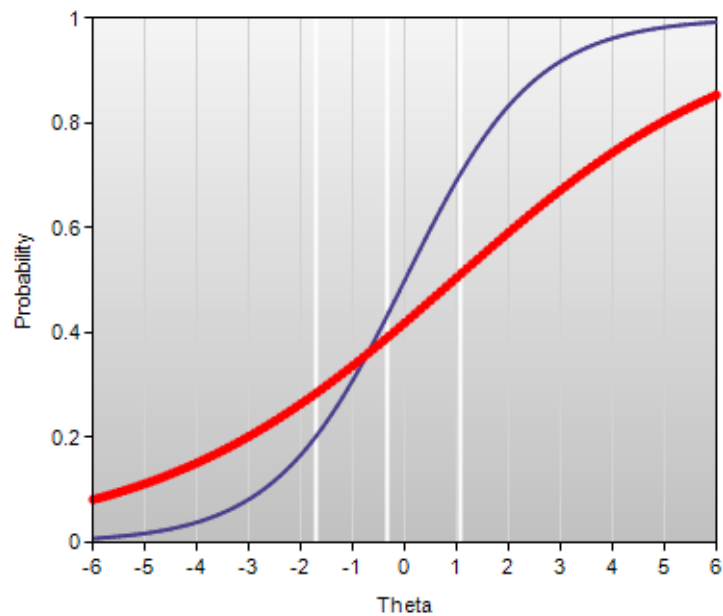
Initial Calibration

Mathematics Grade 10: IA05144 (MA805372590)



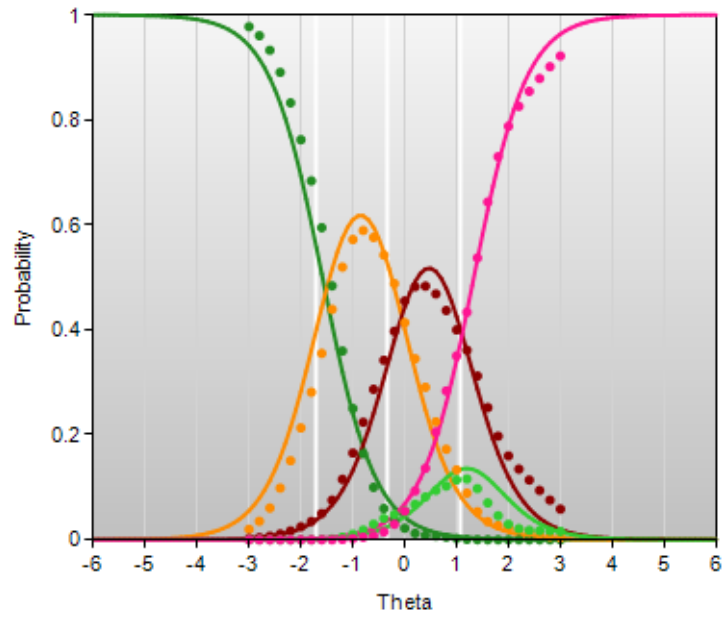
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Mathematics Grade 10: IA05144 (MA805372590)



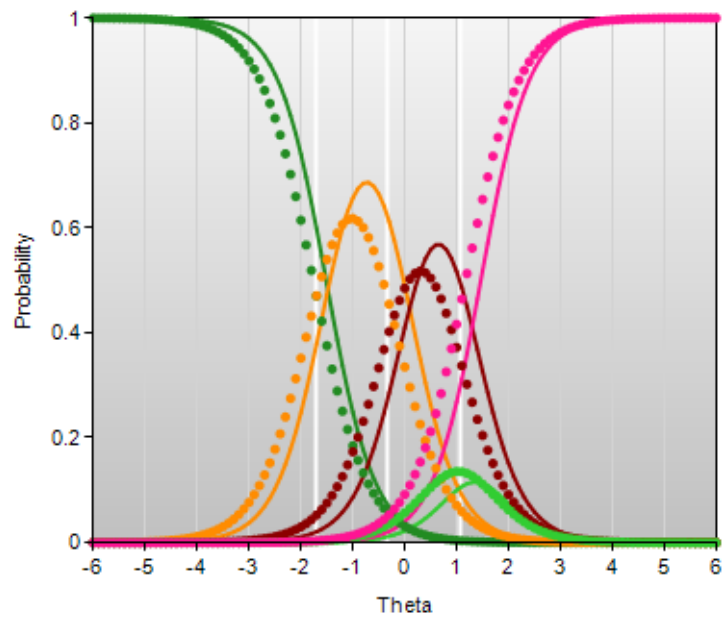
Initial Calibration

Mathematics Grade 10: IA05170 (MA806408603)



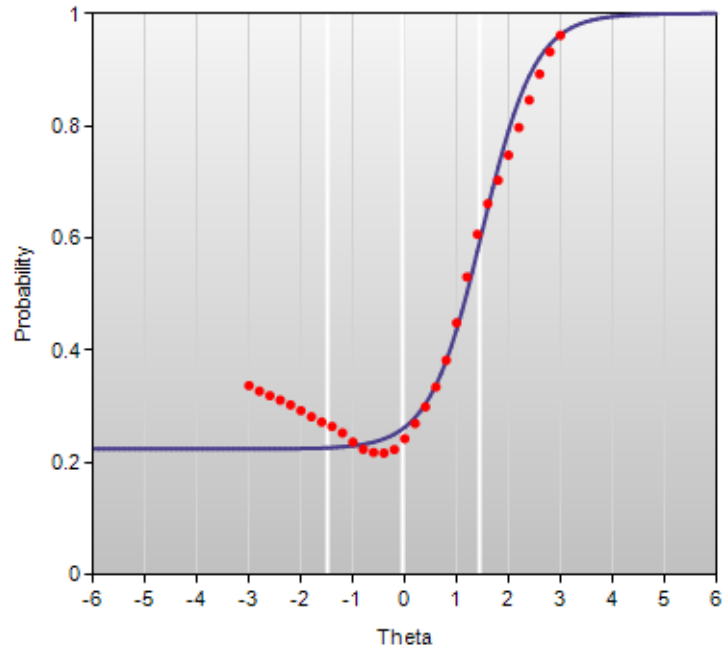
Beta Chart

Mathematics Grade 10: IA05170 (MA806408603)



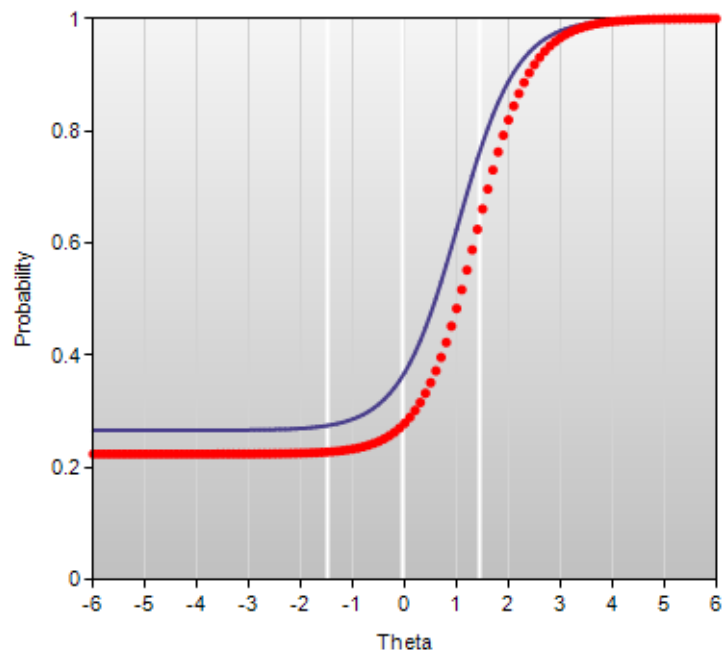
Initial Calibration

Science Grade 8: IA05243 (SC289702)



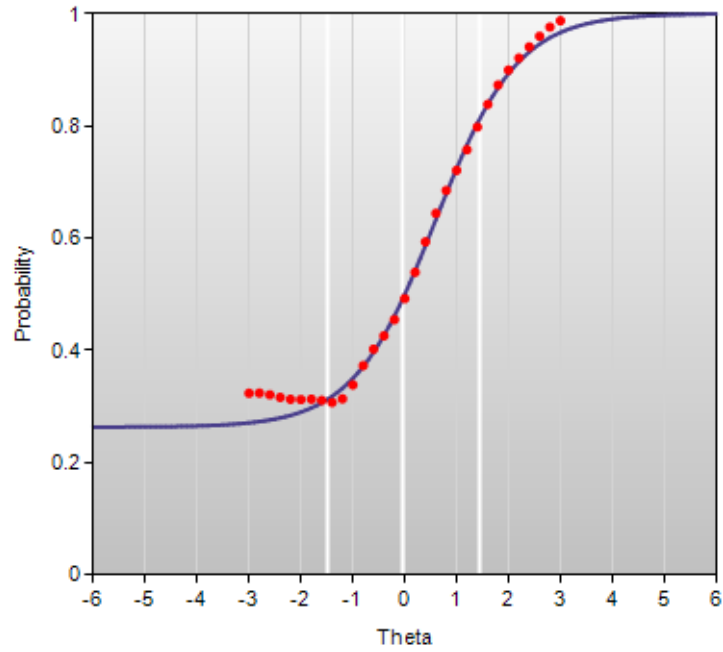
Beta Chart

Science Grade 8: IA05243 (SC289702)



Initial Calibration

Science Grade 8: IA05245 (SC290144)



Beta Chart

Science Grade 8: IA05245 (SC290144)

