Supplementary Table 7. The result of Poly-DIMTEST statistic report.

Poly-DIMTEST Statistic Report

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Test length: 12

# of Examinees in Poly-DIMTEST Stat. Calculation Group: 226

This represents a *small* test administration:

up to 2000 examinees.

Minimum # of persons required for each cell: 1

AT1 item list	AT2 item list
1	11
2	5
3	10

4 6

PT item list

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7 8 9 12

Calculation summary

AT lengths: m = 4

PT length: n = 4

Number of partition cells: K = 17

ASSESSMENT TEST 1

SigmaK2 : Formula in page 7. (Li & Stout, 1995)

SigmaUK2 : Formula in page 7. (Li & Stout, 1995)

Vk2 : Formula in page 8. (Li & Stout, 1995)

Xk = SigmaK2 - SigmaUK2

	PT Cell	PT Avg	AT1 Avg	SigmaK2	SigmaUK2	sqrt(Vk2)	
*	1	0.125	0.292	0.000	0.000	0.000	kick this cell out
	2	0.167	0.281	0.016	0.007	0.004	
	3	0.208	0.458	0.024	0.016	0.008	
	4	0.250	0.354	0.011	0.007	0.008	
	5	0.292	0.404	0.012	0.007	0.005	
	6	0.333	0.413	0.024	0.009	0.014	
	7	0.375	0.542	0.002	0.005	0.002	
	8	0.417	0.507	0.027	0.009	0.012	
	9	0.458	0.549	0.016	0.009	0.007	
	10	0.500	0.566	0.014	0.006	0.007	
	11	0.542	0.625	0.008	0.003	0.003	
	12	0.583	0.639	0.020	0.010	0.007	
*	13	0.625	0.667	0.000	0.000	0.000	kick this cell out
*	14	0.667	0.646	0.000	0.000	0.000	kick this cell out
	15	0.750	0.740	0.006	0.006	0.004	
	16	0.833	0.833	0.000	0.000	0.000	
*	17	0.875	1.083	0.000	0.000	0.000	kick this cell out
				---	---		
			Sum:	0.181	0.096	0.081	

Max(sqrt(Vk2))/Min(sqrt(Vk2)) = 0.014 / 0.000 = 43.8363

ASSESSMENT TEST 2

SigmaK2 : Formula in page 7. (Li & Stout, 1995)

SigmaUK2 : Formula in page 7. (Li & Stout, 1995)

Vk2 : Formula in page 8. (Li & Stout, 1995)

Xk = SigmaK2 - SigmaUK2

	PT Cell	PT Avg	AT2 Avg	SigmaK2	SigmaUK2	sqrt(Vk2)	
*	1	0.125	0.292	0.000	0.000	0.000	kick this cell out
	2	0.167	0.237	0.011	0.007	0.003	
	3	0.208	0.385	0.016	0.013	0.008	
	4	0.250	0.384	0.026	0.012	0.006	
	5	0.292	0.388	0.013	0.008	0.005	
	6	0.333	0.386	0.008	0.006	0.003	
	7	0.375	0.403	0.007	0.004	0.004	
	8	0.417	0.472	0.013	0.011	0.007	
	9	0.458	0.479	0.020	0.014	0.010	
	10	0.500	0.545	0.020	0.010	0.008	

	11	0.542	0.556	0.006	0.005	0.003
	12	0.583	0.644	0.007	0.009	0.004
	13	0.625	0.708	0.000	0.000	0.000
*	14	0.667	0.646	0.000	0.000	0.000kick this cell out
	15	0.750	0.677	0.005	0.008	0.005
*	16	0.833	0.792	0.000	0.000	0.000kick this cell out
	17	0.875	1.042	0.000	0.000	0.001
				---	---	
			Sum:	0.150	0.107	0.069

Max(sqrt(Vk2))/Min(sqrt(Vk2)) = 0.010 / 0.000 = 58.9042

Table of Intermediate Values for Poly-DIMTEST Statistic T

	PT Cell	PT Score	# Examinees	TL,k	TB,k	TL,k - TB,k
*	kick out					
	2	4	90	2.00318	1.11599	0.88719
	3	5	13	0.98183	0.27538	0.70645
	4	6	14	0.42317	2.35886	-1.93569

5	7	16	0.79363	0.82795	-0.03432
6	8	38	1.10783	0.76632	0.34152
7	9	6	-1.79301	0.69221	-2.48523
8	10	6	1.51096	0.25111	1.25984
9	11	6	1.08150	0.61060	0.47090
10	12	12	1.21575	1.14352	0.07223
11	13	3	1.35827	0.55085	0.80743
12	14	9	1.47144	-0.59159	2.06303
13	15	1	0.00000	0.00012	-0.00012
* kick out					
15	18	4	0.10674	-0.64457	0.75131
* kick out					
17	21	1	0.00000	0.00007	-0.00007
		---	---	---	---
	Sum:	219	10.2613	7.3568	2.9045

TL,k = Xk/Sqrt(Vk2)) (using AT1 sigma's),

TB,k = Xk/Sqrt(Vk2)) (using AT2 sigma's).

Original examinee Poly-DIMTEST statistic group size: 226

Size after deleting sparse cells: 219

Proportion of examinees included in

calculating the Poly-DIMTEST statistics: .9690

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Poly-DIMTEST Summary and Results

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TL = sum { Xk/sqrt(Vk2)} / sqrt(K) (using AT1)

TB = sum { Xk/sqrt(Vk2)} / sqrt(K) (using AT2)

Poly-Dimtest Statistics

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TL	TB	T	P-value
2.845981	1.966195	0.622102	0.266937