

OmniLog

Project:	PISA 2000 Math Data Book 1 Australia-Germany-Japan-UK-USA
Description:	15 items 5 Group Factors
Date:	08 October 2009
Time:	05:29 PM

3PL Model Item Parameter Estimates for Group 1, logit: $a\theta + c$

Item	Label	a_1	s.e.	a_2	s.e.	a_3	s.e.	a_4	s.e.	a_5	s.e.	a_6	s.e.	c	s.e.	logit g	s.e.	g	s.e.				
3	Cube Painting	3	2.69	0.61	18	2.27	0.67	0.00	----	0.00	----	0.00	----	0.00	----	31	1.85	0.41	30	-2.31	0.80	0.09	0.07

Nominal Model Slopes and Scoring Function Contrasts for Items for Group 1, logit: $(a sk\theta + ck)$; $s = T\alpha$

Item	Label	a_1	s.e.	a_2	s.e.	a_3	s.e.	a_4	s.e.	a_5	s.e.	a_6	s.e.		
1	Cube Painting	1	1.20	0.11	16	0.98	0.17	0.00	----	0.00	----	0.00	----		
2	Cube Painting	2	1.07	0.11	17	0.82	0.15	0.00	----	0.00	----	0.00	----		
4	Cube Painting	4	1.33	0.12	19	0.96	0.18	0.00	----	0.00	----	0.00	----		
5	Farms	5	2.01	0.16	0.00	----	20	0.53	0.14	0.00	----	0.00	----		
6	Farms	6	0.89	0.08	0.00	----	20	0.53	0.14	0.00	----	0.00	----		
7	Walking	7	2.66	0.21	0.00	----	0.00	----	21	1.07	0.10	0.00	----		
8	Walking	8	1.92	0.17	0.00	----	0.00	----	21	1.07	0.10	0.00	----		
9	Apples	9	1.57	0.13	0.00	----	0.00	----	0.00	----	22	0.74	0.18		
10	Apples	10	3.20	0.28	0.00	----	0.00	----	0.00	----	23	0.81	0.20		
11	Apples	11	2.28	0.69	0.00	----	0.00	----	0.00	----	24	1.33	0.64		
12	Continent Area	12	1.23	0.11	0.00	----	0.00	----	0.00	----	0.00	----	0.00		
13	Growing Up	13	1.29	0.22	0.00	----	0.00	----	0.00	----	0.00	----	25	1.02	0.56
14	Growing Up	14	1.13	0.09	0.00	----	0.00	----	0.00	----	0.00	----	26	0.31	0.14
15	Growing Up	15	0.60	0.06	0.00	----	0.00	----	0.00	----	0.00	----	27	0.36	0.17

Item	Label	Contrasts	α_1	s.e.	α_2	s.e.	α_3	s.e.		
1	Cube Painting	Trend	1.00	----						
2	Cube Painting	Trend	1.00	----						
4	Cube Painting	Trend	1.00	----						
5	Farms	Trend	1.00	----						
6	Farms	Trend	1.00	----						
7	Walking	Trend	1.00	----						
8	Walking	Trend	1.00	----	36	0.50	0.13	37	0.08	0.07
9	Apples	Trend	1.00	----						
10	Apples	Trend	1.00	----						
11	Apples	Trend	1.00	----	43	0.54	0.11			
12	Continent Area	Trend	1.00	----	46	0.23	0.08			
13	Growing Up	Trend	1.00	----						
14	Growing Up	Trend	1.00	----						
15	Growing Up	Trend	1.00	----	51	0.04	0.09			

Nominal Model Scoring Function Values (s) for Group 1

Item	Label	s_1	s_2	s_3	s_4
1	Cube Painting	0.00	1.00		
2	Cube Painting	0.00	1.00		
4	Cube Painting	0.00	1.00		
5	Farms	0.00	1.00		
6	Farms	0.00	1.00		
7	Walking	0.00	1.00		
8	Walking	0.00	1.50	2.37	3.00
9	Apples	0.00	1.00		
10	Apples	0.00	1.00		
11	Apples	0.00	1.54	2.00	

12	Continent Area	0.00	1.23	2.00
13	Growing Up	0.00	1.00	
14	Growing Up	0.00	1.00	
15	Growing Up	0.00	1.04	2.00

Nominal Model Intercept Contrasts for Items for Group 1

Item	Label	Contrasts	γ_1	s.e.	γ_2	s.e.	γ_3	s.e.			
1	Cube Painting	Trend	28	0.54	0.14						
2	Cube Painting	Trend	29	-2.12	0.16						
4	Cube Painting	Trend	32	-1.41	0.16						
5	Farms	Trend	33	0.22	0.14						
6	Farms	Trend	34	0.29	0.07						
7	Walking	Trend	35	-2.20	0.20						
8	Walking	Trend	38	-2.47	0.21	39	0.12	0.34	40	0.15	0.19
9	Apples	Trend	41	0.28	0.11						
10	Apples	Trend	42	-3.22	0.28						
11	Apples	Trend	44	-3.53	0.99	45	-1.45	0.50			
12	Continent Area	Trend	47	-1.82	0.12	48	0.28	0.11			
13	Growing Up	Trend	49	0.33	0.11						
14	Growing Up	Trend	50	-0.10	0.09						
15	Growing Up	Trend	52	0.70	0.07	53	0.60	0.07			

Factor Loadings for Group 1

Item	Label	λ_1	s.e.	λ_2	s.e.	λ_3	s.e.	λ_4	s.e.	λ_5	s.e.	λ_6	s.e.
1	Cube Painting	0.51	0.06	0.41	0.10	0.00	----	0.00	----	0.00	----	0.00	----
2	Cube Painting	0.48	0.07	0.37	0.10	0.00	----	0.00	----	0.00	----	0.00	----
3	Cube Painting	0.66	0.06	0.55	0.12	0.00	----	0.00	----	0.00	----	0.00	----
4	Cube Painting	0.55	0.06	0.39	0.10	0.00	----	0.00	----	0.00	----	0.00	----
5	Farms	0.74	0.06	0.00	----	0.20	0.08	0.00	----	0.00	----	0.00	----
6	Farms	0.45	0.06	0.00	----	0.26	0.11	0.00	----	0.00	----	0.00	----
7	Walking	0.79	0.06	0.00	----	0.00	----	0.32	0.04	0.00	----	0.00	----
8	Walking	0.69	0.06	0.00	----	0.00	----	0.38	0.04	0.00	----	0.00	----
9	Apples	0.64	0.06	0.00	----	0.00	----	0.00	----	0.30	0.11	0.00	----
10	Apples	0.85	0.05	0.00	----	0.00	----	0.00	----	0.22	0.08	0.00	----
11	Apples	0.72	0.09	0.00	----	0.00	----	0.00	----	0.42	0.17	0.00	----
12	Continent Area	0.58	0.07	0.00	----	0.00	----	0.00	----	0.00	----	0.00	----
13	Growing Up	0.54	0.06	0.00	----	0.00	----	0.00	----	0.00	----	0.43	0.30
14	Growing Up	0.55	0.06	0.00	----	0.00	----	0.00	----	0.00	----	0.15	0.11
15	Growing Up	0.33	0.05	0.00	----	0.00	----	0.00	----	0.00	----	0.19	0.15

Group Latent Variable Means: [\(Back to TOC\)](#)

Group	Label	μ_1	s.e.	μ_2	s.e.	μ_3	s.e.	μ_4	s.e.	μ_5	s.e.	μ_6	s.e.
1	Australia	54	0.36	0.09	55	0.59	0.18	0.00	----	0.00	----	0.00	----
2	Germany	58	0.20	0.09	59	0.06	0.16	0.00	----	0.00	----	0.00	----
3	Japan	62	0.74	0.09	63	0.42	0.18	0.00	----	0.00	----	0.00	----
4	UK	66	0.47	0.08	67	0.20	0.14	0.00	----	0.00	----	0.00	----
5	USA		0.00	----		0.00	----	0.00	----	0.00	----	0.00	----

Latent Variable Variance-Covariance Matrix for Group 1, Australia [\(Back\)](#)

θ_1	s.e.	θ_2	s.e.	θ_3	s.e.	θ_4	s.e.	θ_5	s.e.	θ_6	s.e.	
56	1.02	0.15										
	0.00	----	57	1.27	0.43							
				0.00	----	1.00	----					
						0.00	----	1.00	----			
								0.00	----	1.00	----	
										0.00	----	
											1.00	----

Latent Variable Variance-Covariance Matrix for Group 2, Germany [\(Back\)](#)

	θ_1	s.e.	θ_2	s.e.	θ_3	s.e.	θ_4	s.e.	θ_5	s.e.	θ_6	s.e.
60	1.06	0.17										
	0.00	----	61	2.57	0.92							
	0.00	----	0.00	----	1.00	----						
	0.00	----	0.00	----	0.00	----	1.00	----				
	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----		
	0.00	----	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----

Latent Variable Variance-Covariance Matrix for Group 3, Japan [\(Back\)](#)

	θ_1	s.e.	θ_2	s.e.	θ_3	s.e.	θ_4	s.e.	θ_5	s.e.	θ_6	s.e.
64	0.59	0.10										
	0.00	----	65	1.53	0.53							
	0.00	----	0.00	----	1.00	----						
	0.00	----	0.00	----	0.00	----	1.00	----				
	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----		
	0.00	----	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----

Latent Variable Variance-Covariance Matrix for Group 4, UK [\(Back\)](#)

	θ_1	s.e.	θ_2	s.e.	θ_3	s.e.	θ_4	s.e.	θ_5	s.e.	θ_6	s.e.
68	0.85	0.12										
	0.00	----	69	1.21	0.37							
	0.00	----	0.00	----	1.00	----						
	0.00	----	0.00	----	0.00	----	1.00	----				
	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----		
	0.00	----	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----

Latent Variable Variance-Covariance Matrix for Group 5, USA [\(Back\)](#)

	θ_1	s.e.	θ_2	s.e.	θ_3	s.e.	θ_4	s.e.	θ_5	s.e.	θ_6	s.e.
	1.00	----										
	0.00	----	1.00	----								
	0.00	----	0.00	----	1.00	----						
	0.00	----	0.00	----	0.00	----	1.00	----				
	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----		
	0.00	----	0.00	----	0.00	----	0.00	----	0.00	----	1.00	----

Summary of the Data and Control Parameters [\(Back to TOC\)](#)

Group:	Australia	Germany	Japan	UK	USA
Sample Size	464	409	445	889	358
Number of Items	15	15	15	15	15
Number of Dimensions	6	6	6	6	6
Bi-factor Model	Yes	Yes	Yes	Yes	Yes

Processing times (in seconds)

A-time:	0.00
E-time:	74.75
D-time:	0.00
M-time:	286.63
S-time:	15.11
Total:	376.48