

ภาคผนวก ค

ตัวอย่างผลการวิเคราะห์การทำหน้าที่ต่างกันของข้อสอบด้วยวิธีชีพทดสอบที่ปรับใหม่

SIBTEST OUTPUT (กลุ่มคำ)

number of items on test = 40

name of file for Ref. grp. scores = d:\A\girl2_L.txt

name of file for Focal grp. scores = d:\A\man2_L.txt

minimum no. of examinees per matching score cell = 2

number of runs for this data set = 40

number of examinees in Reference Group = 509

number of examinees in Focal group = 508

Examinee Test Score Summary Statistics

Reference Group: Mean = 13.77

Standard deviation = 3.84

Focal Group: Mean = 13.60

Standard deviation = 3.53

Standardized Score Difference = 0.05

Item Statistics

= item number

p = proportion right on item (Classical Test Theory p-value)

r = point biserial (item score-test score correlation)

#: 1 2 3 4 5 6 7 8 9 10

p: 0.412 0.490 0.472 0.323 0.305 0.267 0.184 0.454 0.391 0.319

r: 0.201 0.282 0.289 0.098 0.107 0.123 0.052 0.192 0.278 0.224

#: 11 12 13 14 15 16 17 18 19 20

p: 0.313 0.395 0.312 0.273 0.413 0.382 0.423 0.284 0.356 0.274

r: 0.290 0.197 0.215 0.142 0.265 0.240 0.176 0.197 0.249 0.158

#: 21 22 23 24 25 26 27 28 29 30

p: 0.329 0.192 0.287 0.206 0.156 0.465 0.386 0.251 0.225 0.240

r: 0.215 0.102 0.196 0.152 0.113 0.252 0.297 0.294 0.197 0.044

#: 31 32 33 34 35 36 37 38 39 40
 p: 0.507 0.404 0.441 0.225 0.426 0.488 0.463 0.333 0.403 0.216
 r: 0.268 0.165 0.224 0.098 0.221 0.335 0.223 0.239 0.147 0.051

p-value notation:

R denotes p-value for test of DIF/DBF against Ref. group

F denotes p-value for test of DIF/DBF against Foc. group

E denotes p-value for test of DIF/DBF against either the
 Ref. or Foc. group.

NOTES:

MS/SSD = Matching Subtest Standardized Score Difference.

Standardized difference in mean observed scores
 between Reference group and Focal group on the
 matching subtest.

p-elim = proportion of Reference (R) and Focal (F) groups
 eliminated (not used) in SIBTEST calculations.

Positive Beta estimate indicates DIF/DBF favoring Ref. grp.

Negative Beta estimate indicates DIF/DBF favoring Foc. grp.

FLAG = error flag indicator. FLAG=0 indicates a normal
 successful completion of a SIBTEST run. All other values
 of FLAG come with short error messages.

SIBTEST-pooled weighting

SIBTEST-pooled weighting								F
								L
Run	Suspect	Subtest	Beta	standard	p-elim		MS	A
no.	Item	Numbers	estimate	error	p-value	R	SSD	G
1	1		0.108	0.033	0.001 E	.13	.11	0.03
2	2		0.103	0.032	0.002 E	.13	.11	0.03
3	3		0.043	0.033	0.187 E	.12	.10	0.04
4	4		0.025	0.031	0.431 E	.13	.10	0.05
5	5		-0.007	0.031	0.809 E	.13	.11	0.06
6	6		0.030	0.030	0.321 E	.13	.11	0.05
7	7		0.048	0.026	0.058 E	.16	.09	0.04
8	8		0.016	0.033	0.617 E	.12	.11	0.05
9	9		0.057	0.032	0.071 E	.11	.10	0.04
10	10		-0.058	0.031	0.062 E	.12	.10	0.07
11	11		0.036	0.030	0.237 E	.12	.10	0.05
12	12		0.017	0.033	0.601 E	.13	.11	0.05
13	13		0.062	0.031	0.044 E	.14	.10	0.04
14	14		-0.037	0.030	0.219 E	.13	.10	0.06
15	15		0.033	0.032	0.308 E	.12	.11	0.05
16	16		-0.006	0.032	0.846 E	.11	.10	0.06
17	17		-0.018	0.033	0.574 E	.13	.12	0.06
18	18		0.031	0.030	0.296 E	.12	.10	0.04
19	19		0.056	0.031	0.074 E	.11	.10	0.04
20	20		-0.017	0.030	0.559 E	.14	.10	0.06
21	21		-0.051	0.031	0.102 E	.13	.10	0.07
22	22		-0.091	0.026	0.001 E	.14	.10	0.08
23	23		-0.049	0.030	0.101 E	.13	.10	0.06
24	24		-0.036	0.027	0.182 E	.14	.10	0.07
25	25		-0.004	0.025	0.869 E	.14	.10	0.05
26	26		0.060	0.032	0.065 E	.12	.10	0.04
27	27		0.057	0.032	0.070 E	.12	.11	0.04
28	28		0.077	0.029	0.007 E	.12	.10	0.03
29	29		0.037	0.028	0.188 E	.12	.10	0.04
30	30		-0.004	0.029	0.898 E	.15	.11	0.05

31	31	0.024	0.032	0.462 E .12	.11	0.05	0
32	32	-0.024	0.033	0.470 E .14	.11	0.06	0
33	33	0.075	0.032	0.020 E .12	.11	0.04	0
34	34	0.026	0.028	0.367 E .14	.10	0.05	0
35	35	0.092	0.033	0.005 E .13	.10	0.03	0
36	36	0.150	0.032	0.000 E .12	.11	0.02	0
37	37	0.067	0.032	0.039 E .11	.11	0.04	0
38	38	0.048	0.031	0.124 E .13	.10	0.04	0
39	39	0.097	0.032	0.003 E .13	.11	0.03	0
40	40	-0.049	0.027	0.077 E .15	.10	0.06	0

SIBTEST OUTPUT (กลุ่มสูง)

number of items on test = 40

name of file for Ref. grp. scores = d:\A\girl2_H.txt

name of file for Focal grp. scores = d:\A\man2_H.txt

minimum no. of examinees per matching score cell = 2

number of runs for this data set = 40

number of examinees in Reference Group = 491

number of examinees in Focal group = 492

Examinee Test Score Summary Statistics

Reference Group: Mean = 27.55

Standard deviation = 4.23

Focal Group: Mean = 26.93

Standard deviation = 4.31

Standardized Score Difference = 0.14

Item Statistics

= item number

p = proportion right on item (Classical Test Theory p-value)

r = point biserial (item score-test score correlation)

#: 1 2 3 4 5 6 7 8 9 10

p: 0.727 0.859 0.851 0.599 0.702 0.613 0.464 0.811 0.810 0.720

r: 0.129 0.237 0.260 0.304 0.365 0.306 0.321 0.293 0.287 0.261

#: 11 12 13 14 15 16 17 18 19 20

p: 0.778 0.716 0.700 0.604 0.727 0.748 0.656 0.671 0.762 0.540

r: 0.332 0.266 0.307 0.357 0.203 0.267 0.221 0.233 0.177 0.168

#: 21 22 23 24 25 26 27 28 29 30
 p: 0.697 0.461 0.563 0.476 0.456 0.784 0.753 0.677 0.506 0.471
 r: 0.233 0.202 0.121 0.291 0.297 0.190 0.158 0.204 0.102 0.228

#: 31 32 33 34 35 36 37 38 39 40
 p: 0.845 0.666 0.787 0.569 0.715 0.886 0.840 0.764 0.708 0.560
 r: 0.121 0.246 0.158 0.304 0.164 0.172 0.193 0.291 0.194 0.341

p-value notation:

R denotes p-value for test of DIF/DBF against Ref. group

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 Ref. or Foc. group.

NOTES:

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 between Reference group and Focal group on the
 matching subtest.

p-elim = proportion of Reference (R) and Focal (F) groups
 eliminated (not used) in SIBTEST calculations.

Positive Beta estimate indicates DIF/DBF favoring Ref. grp.

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 successful completion of a SIBTEST run. All other values
 of FLAG come with short error messages.

SIBTEST-pooled weighting						F	
						L	
Run	Suspect	Subtest	Beta	standard	p-elim	MS	A
no.	Item	Numbers	estimate	error	p-value	R	F
						SSD	G
1	1		0.039	0.028	0.166 E	.00 .04	0.14 0
2	2		0.019	0.022	0.396 E	.00 .04	0.14 0
3	3		0.003	0.022	0.909 E	.00 .04	0.15 0
4	4		0.008	0.030	0.801 E	.00 .03	0.15 0
5	5		0.000	0.027	0.994 E	.00 .03	0.15 0
6	6		-0.064	0.029	0.029 E	.00 .03	0.16 0
7	7		0.081	0.030	0.008 E	.00 .01	0.13 0
8	8		-0.023	0.024	0.337 E	.00 .04	0.16 0
9	9		0.068	0.025	0.006 E	.00 .05	0.14 0
10	10		0.064	0.028	0.023 E	.00 .04	0.14 0
11	11		0.007	0.025	0.781 E	.00 .03	0.15 0
12	12		-0.003	0.028	0.917 E	.00 .03	0.15 0
13	13		0.096	0.028	0.001 E	.00 .03	0.13 0
14	14		-0.014	0.029	0.645 E	.00 .02	0.16 0
15	15		0.043	0.028	0.126 E	.00 .03	0.14 0
16	16		0.007	0.027	0.784 E	.00 .04	0.15 0
17	17		0.042	0.030	0.168 E	.00 .04	0.14 0
18	18		-0.013	0.030	0.659 E	.00 .03	0.15 0
19	19		0.044	0.027	0.103 E	.00 .03	0.14 0
20	20		-0.007	0.032	0.825 E	.00 .04	0.16 0
21	21		-0.058	0.029	0.044 E	.00 .04	0.17 0
22	22		0.042	0.031	0.173 E	.00 .03	0.15 0
23	23		-0.028	0.031	0.378 E	.00 .03	0.16 0
24	24		-0.046	0.030	0.128 E	.00 .02	0.16 0
25	25		0.001	0.031	0.966 E	.00 .02	0.15 0
26	26		0.016	0.026	0.534 E	.00 .04	0.14 0
27	27		0.117	0.027	0.000 E	.00 .04	0.12 0
28	28		0.066	0.029	0.024 E	.00 .03	0.13 0
29	29		0.071	0.032	0.026 E	.00 .02	0.13 0
30	30		-0.009	0.031	0.779 E	.00 .02	0.15 0

31	31	0.020	0.024	0.393 E	.00	.06	0.14	0
32	32	0.064	0.030	0.030 E	.00	.03	0.14	0
33	33	0.042	0.026	0.103 E	.00	.05	0.14	0
34	34	0.141	0.030	0.000 E	.00	.02	0.12	0
35	35	0.090	0.029	0.002 E	.00	.04	0.13	0
36	36	0.074	0.021	0.000 E	.00	.05	0.13	0
37	37	-0.004	0.023	0.853 E	.00	.04	0.15	0
38	38	0.108	0.026	0.000 E	.00	.04	0.12	0
39	39	0.065	0.029	0.024 E	.00	.04	0.13	0
40	40	-0.018	0.030	0.543 E	.00	.01	0.15	0