

FLEISHMAN

FLEISHMAN EA/HEMPEL WE JR - BASIC AIRMEN
 CHANGES IN FACTOR STRUCTURE OF A COMPLEX PSYCHOMOTOR
 TEST AS A FUNCTION OF PRACTICE
 PSYCHOMETRIKA 1954 19 239-252 TABLE 1 P.243 PEARSON R'S

N=197

*** HIERARCHICAL FACTOR MATRIX, ORDER 1 ***

V#	1	2	3	4	H^2
FACTOR 1: O2;F1 GEN'L COGNITIVE ABILITY ..2G; ORDER 2					
FACTOR 2: O1;F1 PERCEPTUAL SPEED .....P; ORDER 1					
1 +10 DIAL AND TABLE READING .....	.67	.41	.27	.14	.71
2 +9 NUMERICAL OPERATIONS II.....	.46	.39	.06	.10	.38
3 +13 SPEED OF IDENTIFICATION .....	.62	.38	.16	.24	.61
4 +19 SPEED OF MARKING .....	.51	.38	-.034	.315	.50
5 +16 DECODING .....	.59	.37	.25	.10	.56
6 +18 SPATIAL ORIENTATION .....	.57	.28	.26	.16	.50
FACTOR 3: O1;F2 MECHANICAL KNOWLEDGE.....MK; ORDER 1					
7 +12 GENERAL MECHANICS .....	.39	-.03	.49	.00	.40
8 +11 MECHANICAL PRINCIPLES .....	.51	.16	.47	-.04	.51
9 +14 PATTERN COMPREHENSION .....	.60	.25	.31	.18	.55
10 +24 NUT AND BOLT .....	.32	-.03	.29	.14	.21
11 +17 INSTRUMENT COMPREHENSION .....	.50	.16	.26	.20	.39
FACTOR 4: O1;F3 REACTION TIME .....R1; ORDER 1					
12 +25 REACTION TIME .....	.12	-.13	-.15	.54	.35
13 +26 RATE OF MOVEMENT .....	.25	-.01	-.05	.44	.26
14 +21 ROTARY PURSUIT .....	.38	-.10	.23	.41	.38
15 +22 PLANE CONTROL.....	.30	-.23	.29	.36	.36
16 +20 LOG BOOK ACCURACY .....	.454	.315	-.05	.35	.42
17 +23 DISCRIMINATION REACTION TIME .	.55	.17	.22	.32	.48
18 +15 VISUAL PURSUIT .....	.43	.16	.18	.21	.29
SMSQ: 4.11 1.17 1.19 1.37 7.84					

*** HIERARCHICAL FACTOR MATRIX, ORDER 2 ***

HF # 1ST-ORD FACTOR	1	H^2
FACTOR 1: O2;F1 GEN'L COGNITIVE ABILITY ..2G; ORDER 2		
HF 2 O1;F1 PERCEPTUAL SPEED .....P	.65	.42
HF 3 O1;F2 MECHANICAL KNOWLEDGE.....MK	.65	.42
HF 4 O1;F3 REACTION TIME .....R1	.56	.31
SMSQ: 1.15 1.15		