

Program written by DETECT for Windows

MULTIPLE (3) LEVEL ANALYSIS FROM SECTION 5.5

13 1 1 2 2 3 1 0 0 6 2 0 1 0 0

4

PERFORMC

TASKCLAR

(3F2.0,2F1.0,F2.0,4X,2F2.0)

DDDDDDD	EEEEEEEE	TTTTTTTT	EEEEEEEE	CCCCC	TTTTTTTT
DDDDDDDD	EEEEEEEE	TTTTTTTT	EEEEEEEE	CCCCCCC	TTTTTTTT
DD DD	EE	TT	EE	CC	TT
DD DD	EE	TT	EE	CC	TT
DD DD	EEEE	TT	EEEE	CC	TT
DD DD	EEEE	TT	EEEE	CC	TT
DD DD	EE	TT	EE	CC	TT
DD DD	EE	TT	EE	CC	TT
DDDDDDDD	EEEEEEEE	TT	EEEEEEEE	CCCCCCC	TT
DDDDDDD	EEEEEEEE	TT	EEEEEEEE	CCCCC	TT

DATA ENQUIRY THAT TESTS ENTITY AND
 CORRELATIONAL/CAUSAL THEORIES
 PROGRAM TITLE
 MULTIPLE (3) LEVEL ANALYSIS FROM SECTION 5.5

TABLE I
GENERAL INFORMATION LINE

ENTRY	MEANING	CODE
ONE	DATA INPUT FROM FILE	13,
TWO	OUTPUT TO FILE 8 ONLY. OPTION	1,
THREE	REGULAR TABLES OUTPUT. OPTION	1,
FOUR	SELECTED TABLES OUTPUT. OPTION	2,
FIVE	POSITION OF FIRST CELL INDICATOR	2,
SIX	POSITION OF SECOND CELL INDICATOR	3,
SEVEN	NUMBER OF ADDITIONAL LEVELS OF ANALYSIS	1,
EIGHT	MULTIPLE-VARIABLE ANALYSIS DELETED. OPTION	0,
NINE	MULTIPLE-RELATIONSHIP ANALYSIS DELETED. OPTION	0,
TEN	NUMBER OF VARIABLES NOT TO BE ANALYZED	6,
ELEVEN	NUMBER OF VARIABLES TO BE ANALYZED	2,
TWELVE	LABELS INPUT WITH PROGRAM. OPTION	0,
THIRTEEN	NUMBER OF LINES READ FOR FORMAT STATEMENT	1,
FOURTEEN	NO MISSING VALUES. OPTION	0,
FIFTEEN	DATA TRANSFORMATIONS DELETED. OPTION	0

TABLE II
DETAILED INFORMATION LINE

ENTRY	MEANING	CODE
ONE	TOTAL NUMBER OF LINES PER PAGE	61,
TWO	INFORMATION TABLES PRINTED (TABLES I,II AND III) OPTION	1,
THREE	NUMBER OF ENTRIES FOR CELL FREQUENCIES (TABLE CF)	23,
	NUMBER OF ENTRIES IN AVERAGE AND DISPERSION TABLES	
FOUR	ACROSS ALL CASES (TABLE AT)	20,
FIVE	BY CELLS (TABLE AC)	0,
SIX	BY VARIABLES (TABLE AV)	0,
	NUMBER OF ENTRIES IN WABA TABLES	
SEVEN	WABA I (TABLE WI)	15,
EIGHT	WABA II (TABLES WIID,WIIM AND WTC)	15,
	NUMBER OF ENTRIES IN MULTIPLE-VARIABLE ANALYSIS	
NINE	WITHIN-CELL (TABLE MVAW)	0,
TEN	BETWEEN-CELL (TABLE MVAB)	0,
ELEVEN	CORRELATION MATRIX DELETED. OPTION	0,
TWELVE	DEVIATIONS NOT OUTPUT. OPTION	0,
THIRTEEN	MULTIPLE-RELATIONSHIP ANALYSIS DELETED (TABLE MRA)	0,
FOURTEEN	SEQUENCING PACKAGE CALLED. OPTION	1,
FIFTEEN	EXTRA ROUNDING DELETED. OPTION	0

TABLE III
ADDITIONAL INFORMATION

ADDITIONAL CELL INDICATOR LINE(S) GIL ENTRY SEVEN = 1
4
LABEL LINE(S) GIL ENTRY TWELVE = 0
PERFORMC
TASKCLAR
FORMAT LINE(S) GIL ENTRY THIRTEEN = 1
(3F2.0,2F1.0,F2.0,4X,2F2.0)

MISSING VALUES LINE(S) GIL ENTRY FOURTEEN = 0
NO LINES READ
DATA TRANSFORMATION LINE(S) GIL ENTRY FIFTEEN = 0
NO LINES READ
NUMBER OF CASES FOR ANALYSIS
40

TABLE CF
(LEVEL = 1 CONDITION = 1)
CELL FREQUENCIES

CELL ID NUMBER	CELL SIZE
1	2
7	2
9	2
34	2
35	2
3	2
2	2
10	2
36	2
38	2
4	2
5	2
31	2
37	2
39	2
6	2
8	2
33	2
32	2
40	2

TABLE AT
 (LEVEL = 1 CONDITION = 1)
 AVERAGES AND DISPERSIONS ACROSS ALL CASES

VARIABLE	AVERAGE	AVERAGE SUMS OF SQUARES		
	TOTAL SCORE	TOTAL	BETWEEN	WITHIN
PERFORMC	22.75000	133.58750	133.26250	0.32500
TASKCLAR	18.75000	51.78750	51.21250	0.57500
TOTAL NUMBER OF CASES	40			

TABLE WI
 (LEVEL = 1 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS I

	ETA CORRELATIONS		E RATIO INDUCTION	F RATIOS		
	BETWEEN	WITHIN		BETWEEN	WITHIN	PROB
PERFORMC	0.99878	0.04932	20.24941 WHOLES-30	431.61943		0.0000
TASKCLAR	0.99443	0.10537	9.43744 WHOLES-30	93.75286		0.0000
AVERAGES	0.99661	0.07735	14.84342	262.68615	0.00000	

PRACTICAL SIGNIFICANCE CRITERIA

WHOLES - 15	E > OR =	1.30323
WHOLES - 30	E > OR =	1.73205
PARTS - 15	E < OR =	0.76733
PARTS - 30	E < OR =	0.57735

DEGREES OF FREEDOM FOR (BETWEEN) F-RATIO = 19, 20
 DEGREES OF FREEDOM FOR (WITHIN) F-RATIO = 20, 19

TABLE WIID
 (LEVEL = 1 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS II (DIFFERENCE TESTS)

 CORRELATIONS

	BETWEEN	WITHIN	A-VALUE	INDUCTION	Z-VALUE
PERFORMC					
TASKCLAR	-0.96793	-0.11566	1.20094	WHOLES-30	5.74288**
AVERAGES	-0.96793	-0.11566	1.20094		5.74288

 PRACTICAL SIGNIFICANCE CRITERIA

WHOLES - 15	A >	OR =	0.26180
WHOLES - 30	A >	OR =	0.52360
PARTS - 15	A <	OR =	-0.26180
PARTS - 30	A <	OR =	-0.52360

 *P < OR = .05
 **P < OR = .01

TABLE WIIM
 (LEVEL = 1 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS II (MAGNITUDE TESTS)

		BETWEEN			WITHIN				
		R TEST	IND*	T TEST	PROB	R TEST	IND*	T TEST	PROB

PERFORMC									
TASKCLAR		3.85298	S-30	16.34681	0.0000	0.11644		0.50757	0.6176
AVERAGES		3.85298		16.34681		0.11644		0.50757	

PRACTICAL SIGNIFICANCE CRITERIA									
S - 15	R > OR =					0.26795			
S - 30	R > OR =					0.57735			

DEGREES OF FREEDOM FOR (BETWEEN)		T TEST = 1,			18				
DEGREES OF FREEDOM FOR (WITHIN)		T TEST = 1,			19	* INDICATES INDUCTION			

TABLE WTC
 (LEVEL = 1 CONDITION = 1)
 TOTAL CORRELATION AND COMPONENT ANALYSIS

	TOTAL				COMPONENTS		
	CORRELATION	R TEST	T TEST	PROB	BETWEEN	WITHIN	INDUCTION
PERFORMC							
TASKCLAR	-0.96197	3.52180	21.70983	0.0000	-0.96137	-0.00060	WHOLES-30
AVERAGES	-0.96197	3.52180	21.70983		-0.96137	-0.00060	

PRACTICAL SIGNIFICANCE CRITERIA

WHOLES-15	E(1) AND E(2)	> OR =	1.30323	AND A(1+2)	> OR =	0.26180
WHOLES-30	E(1) AND E(2)	> OR =	1.73205	AND A(1+2)	> OR =	0.52360
PARTS-15	E(1) AND E(2)	< OR =	0.76733	AND A(1+2)	< OR =	-0.26180
PARTS-30	E(1) AND E(2)	< OR =	0.57735	AND A(1+2)	< OR =	-0.52360

DEGREES OF FREEDOM FOR (TOTAL) T TEST = 1, 38

TABLE CF
(LEVEL = 2 CONDITION = 1)
CELL FREQUENCIES

CELL ID NUMBER	CELL SIZE
1	4
3	4
8	4
7	4
2	4
9	4
10	4
4	4
5	4
6	4

TABLE AT
 (LEVEL = 2 CONDITION = 1)
 AVERAGES AND DISPERSIONS ACROSS ALL CASES

VARIABLE	AVERAGE	AVERAGE SUMS OF SQUARES		
	TOTAL SCORE	TOTAL	BETWEEN	WITHIN
PERFORMC	0.00000	133.26250	133.26250	0.00000
TASKCLAR	0.00000	51.21250	51.21250	0.00000
TOTAL NUMBER OF CASES		40		
INDETERMINATE CORRELATION SET TO ZERO				

TABLE WI
 (LEVEL = 2 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS I

ETA CORRELATIONS				F RATIOS		
	BETWEEN	WITHIN	E RATIO INDUCTION	BETWEEN	WITHIN	PROB
E AND F SET EQUAL TO 99.00						
PERFORMC	1.00000	0.00000	99.00000 WHOLES-30	99.00000		0.0000
E AND F SET EQUAL TO 99.00						
TASKCLAR	1.00000	0.00000	99.00000 WHOLES-30	99.00000		0.0000
AVERAGES	1.00000	0.00000	99.00000	99.00000	0.00000	
PRACTICAL SIGNIFICANCE CRITERIA						
WHOLES - 15	E > OR =		1.30323			
WHOLES - 30	E > OR =		1.73205			
PARTS - 15	E < OR =		0.76733			
PARTS - 30	E < OR =		0.57735			
DEGREES OF FREEDOM FOR (BETWEEN) F-RATIO =				9,	10	
DEGREES OF FREEDOM FOR (WITHIN) F-RATIO =				10,	9	

TABLE WIID
 (LEVEL = 2 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS II (DIFFERENCE TESTS)

 CORRELATIONS

	BETWEEN	WITHIN	A-VALUE	INDUCTION	Z-VALUE
PERFORMC					
TASKCLAR	-0.96793	0.00000	1.31686	WHOLES-30	3.97725**
AVERAGES	-0.96793	0.00000	1.31686		3.97725

 PRACTICAL SIGNIFICANCE CRITERIA

WHOLES - 15	A	>	OR	=	0.26180
WHOLES - 30	A	>	OR	=	0.52360
PARTS - 15	A	<	OR	=	-0.26180
PARTS - 30	A	<	OR	=	-0.52360

 *P < OR = .05
 **P < OR = .01

TABLE WIIM
 (LEVEL = 2 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS II (MAGNITUDE TESTS)

		BETWEEN			WITHIN				
		R TEST	IND*	T TEST	PROB	R TEST	IND*	T TEST	PROB

PERFORMC									
TASKCLAR	3.85298	S-30	10.89787	0.0000	0.00000	0.00000	1.0000		
AVERAGES	3.85298		10.89787		0.00000	0.00000			

PRACTICAL SIGNIFICANCE CRITERIA									
S - 15	R >	OR =	0.26795		0.26795				
S - 30	R >	OR =	0.57735		0.57735				

DEGREES OF FREEDOM FOR (BETWEEN)		T TEST =	1,		8			* INDICATES	
DEGREES OF FREEDOM FOR (WITHIN)		T TEST =	1,		9			INDUCTION	

TABLE CF
(LEVEL = 3 CONDITION = 1)
CELL FREQUENCIES

CELL ID NUMBER	CELL SIZE
1	12
4	8
2	8
3	12

TABLE AT
 (LEVEL = 3 CONDITION = 1)
 AVERAGES AND DISPERSIONS ACROSS ALL CASES

VARIABLE	AVERAGE	AVERAGE SUMS OF SQUARES		
	TOTAL SCORE	TOTAL	BETWEEN	WITHIN
PERFORMC	0.00000	133.26250	130.66667	2.59583
TASKCLAR	0.00000	51.21250	50.31667	0.89583
TOTAL NUMBER OF CASES	40			

TABLE WI
 (LEVEL = 3 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS I

	ETA CORRELATIONS		E RATIO INDUCTION	F RATIOS		
	BETWEEN	WITHIN		BETWEEN	WITHIN	PROB
PERFORMC	0.99021	0.13957	7.09486 WHOLES-30	100.67416		0.0000
TASKCLAR	0.99122	0.13226	7.49449 WHOLES-30	112.33488		0.0000
AVERAGES	0.99071	0.13591	7.29468	106.50452	0.00000	

PRACTICAL SIGNIFICANCE CRITERIA

WHOLES - 15	E > OR =	1.30323
WHOLES - 30	E > OR =	1.73205
PARTS - 15	E < OR =	0.76733
PARTS - 30	E < OR =	0.57735

DEGREES OF FREEDOM FOR (BETWEEN) F-RATIO = 3, 6
 DEGREES OF FREEDOM FOR (WITHIN) F-RATIO = 6, 3

TABLE WIID
 (LEVEL = 3 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS II (DIFFERENCE TESTS)

 CORRELATIONS

	BETWEEN	WITHIN	A-VALUE	INDUCTION	Z-VALUE
PERFORMC					
TASKCLAR	-0.98960	0.18307	1.24237	WHOLES-30	2.18419*
AVERAGES	-0.98960	0.18307	1.24237		2.18419

 PRACTICAL SIGNIFICANCE CRITERIA

WHOLES - 15	A	>	OR	=	0.26180
WHOLES - 30	A	>	OR	=	0.52360
PARTS - 15	A	<	OR	=	-0.26180
PARTS - 30	A	<	OR	=	-0.52360

 *P < OR = .05
 **P < OR = .01

TABLE WIIM
 (LEVEL = 3 CONDITION = 1)
 WITHIN AND BETWEEN ANALYSIS II (MAGNITUDE TESTS)

		BETWEEN			WITHIN		
	R TEST IND*	T TEST	PROB	R TEST IND*	T TEST	PROB	
PERFORMC							
TASKCLAR	6.88102 S-30	9.73123	0.0104	0.18621	0.41639	0.6944	
AVERAGES	6.88102	9.73123		0.18621	0.41639		
PRACTICAL SIGNIFICANCE CRITERIA							
S - 15	R > OR =	0.26795		0.26795			
S - 30	R > OR =	0.57735		0.57735			
DEGREES OF FREEDOM FOR (BETWEEN)		T TEST = 1,		2		* INDICATES	
DEGREES OF FREEDOM FOR (WITHIN)		T TEST = 1,		5		INDUCTION	

