

## 附錄 E

### 『數位控制技術能力發展』各項職責之 SPSS 統計分析

----- ONEWAY -----

Variable VA=  
By Variable GROUP

#### Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	69.1354	34.5677	3.9377	.0201
Within Groups	503	4415.6472	8.7786		
Total	505	4484.7826			

----- ONEWAY -----

Variable VA  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 2.0951 * RANGE * SQRT(1/N(I) + 1/N(J))$   
 with the following value(s) for RANGE: 2.78

(\*) Indicates significant differences which are shown in the lower triangle

Mean	GROUP	
13.5361	Grp 1	G G G
14.4667	Grp 3	r r r
15.1579	Grp 2	p p p
		1 3 2

----- ONEWAY -----

Variable VB  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	77.6633	38.8317	3.9198	.0205
Within Groups	503	4983.0481	9.9067		
Total	505	5060.7115			

----- ONEWAY -----

Variable VB  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq 2.2256 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.78

(\*) Indicates significant differences which are shown in the lower triangle

Mean	GROUP	
13.7243	Grp 1	
14.4333	Grp 3	
15.6316	Grp 2	*

GGG  
rrr  
PPP  
132

----- ONEWAY -----

Variable VC  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	79.5985	39.7993	3.9226	.0204
Within Groups	503	5103.4864	10.1461		
Total	505	5183.0850			

----- O N E W A Y -----

Variable VC  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 2.2523 * RANGE * SQRT(1/N(I) + 1/N(J))$   
 with the following value(s) for RANGE: 2.78

(\*) Indicates significant differences which are shown in the lower triangle

			G G G
			r r r
			p p p
			1 3 2
Mean	GROUP		
13.1291	Grp 1		
14.4333	Grp 3	*	
14.5263	Grp 2		

----- O N E W A Y -----

Variable VD  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	64.4640	32.2320	1.9791	.1393
Within Groups	501	8159.4090	16.2862		
Total	503	8223.8730			

----- O N E W A Y -----

Variable VD  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 2.8536 * RANGE * SQRT(1/N(I) + 1/N(J))$

with the following value(s) for RANGE: 2.78

- No two groups are significantly different at the .050 level

----- ONEWAY -----

Variable VE  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	443.8604	221.9302	2.9426	.0536
Within Groups	501	37784.6932	75.4185		
Total	503	38228.5536			

----- ONEWAY -----

Variable VE  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$$\text{MEAN}(J) - \text{MEAN}(I) \geq 6.1408 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$$

with the following value(s) for RANGE: 2.78

(\*) Indicates significant differences which are shown in the lower triangle

Mean	GROUP	
41.1670	Grp 1	G G G
43.0333	Grp 3	r r r
45.6316	Grp 2	p p p
		l 3 2
		*

----- ONEWAY -----

Variable VF  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.2772	.1386	.0132	.9869
Within Groups	499	5224.7208	10.4704		
Total	501	5224.9980			

----- O N E W A Y -----

Variable VF  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 2.2881 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.78

- No two groups are significantly different at the .050 level

----- O N E W A Y -----

Variable VG  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	25.1347	12.5674	1.8728	.1548
Within Groups	500	3355.2709	6.7105		
Total	502	3380.4056			

----- O N E W A Y -----

Variable VG  
By Variable GROUP  
Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 1.8317 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.78

- No two groups are significantly different at the .050 level

----- ONEWAY -----

Variable VH  
 By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.0935	.0468	.0099	.9901
Within Groups	499	2350.6635	4.7107		
Total	501	2350.7570			

----- ONEWAY -----

Variable VH  
 By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 1.5347 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.78

- No two groups are significantly different at the .050 level

----- ONEWAY -----

Variable VI  
 By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
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Between Groups	2	29.6878	14.8439	.9544	.3858
Within Groups	500	7776.8052	15.5536		
Total	502	7806.4930			

----- O N E W A Y -----

Variable VI  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 2.7887 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.78

- No two groups are significantly different at the .050 level

----- O N E W A Y -----

Variable VJ  
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	9.4395	4.7198	1.3083	.2712
Within Groups	500	1803.8289	3.6077		
Total	502	1813.2684			

----- O N E W A Y -----

Variable VJ  
By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if  
 $MEAN(J)-MEAN(I) \geq 1.3431 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
 with the following value(s) for RANGE: 2.78

- No two groups are significantly different at the .050 level