

APPENDIX I:
TRACKING FORMS

Knowlton student tracking form

Student Name.....

Course and Year.....

Date..... **Excavation Week**.....

ATTRIBUTE	1	2	3	4	5	6	7	N/A
Technical skills i.e. trowelling; mattocking; setting out a grid; surveying skills; finds processing; levelling; drawing etc.								
Intellectual skills i.e. problem solving; being able to understand the whole site; being able to draw conclusions; understanding contexts; interpretation; critical thinking etc.								
Inter-personal skills i.e. listening; good communication; empathy; group interaction; understanding & acting on commands etc.								
Transferable skills i.e. working as part of a team; reflective thinking; good communication skills; keeping a log book; measuring; levelling; being organized; dealing with responsibility; time management etc.								
Attitude i.e. health and safety issues; team work								
Enthusiasm								
Confidence								

- 1....Very low
- 2....Low
- 3....Below Average
- 4....Average
- 5.....Above Average
- 6....High
- 7....Very High
- N/A....Not Applicable

Notes

Knowlton student tracking form – final week

Student Name.....

Course and Year.....

Date..... **Excavation Week**.....

Comments by supervisor/academic field co-ordinator

NB: try to include comments on:

- **Technical skills**
- **Inter-personal skills**
- **Attitude**
- **Enthusiasm**
- **Confidence**

APPENDIX II

RESULTS OF THE STATISTICAL COMPARISON BETWEEN THE PART 2 AND PART 3 DOCUMENTS

1 SITE RECORDS

1.1 Comprehending site records

Part 2: Comprehending site records	Part 3: Comprehending site records			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	27	20	2	13
Able with minor adjustments		5	3	
Able with substantial adjustments				
Not applicable				

3 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Comprehending site records - Part2: Comprehending site records	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	25 ^b	13.00	325.00
	Ties	32 ^c		
	Total	57		

a. Part3: Comprehending site records < Part2: Comprehending site records

b. Part3: Comprehending site records > Part2: Comprehending site records

c. Part3: Comprehending site records = Part2: Comprehending site records

Test Statistics^b

	Part3: Comprehending site records - Part2: Comprehending site records
Z	-4.838 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

1.2 Completing site records - descriptions

Part 2: Completing site records - descriptions	Part 3: Completing site records - descriptions			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	19	15	2	11
Able with minor adjustments	8	9		4
Able with substantial adjustments	1	1		
Not applicable				

3 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Completing site records - descriptions -	Negative Ranks	10 ^a	13.85	138.50
	Positive Ranks	17 ^b	14.09	239.50
Part2: Completing site records - descriptions	Ties	28 ^c		
	Total	55		

- a. Part3: Completing site records - descriptions < Part2: Completing site records - descriptions
- b. Part3: Completing site records - descriptions > Part2: Completing site records - descriptions
- c. Part3: Completing site records - descriptions = Part2: Completing site records - descriptions

Test Statistics^b

	Part3: Completing site records - descriptions - Part2: Completing site records - descriptions
Z	-1.329 ^a
Asymp. Sig. (2-tailed)	.184

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

1.3 Completing site records - numerical data

Part 2: Completing site records - numerical data	Part 3: Completing site records - numerical data			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	23	21	3	12
Able with minor adjustments	1	6		3
Able with substantial adjustments				
Not applicable				

4 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Completing site records - numerical data	Negative Ranks	1 ^a	11.50	11.50
	Positive Ranks	24 ^b	13.06	313.50
- Part2: Completing site records - numerical data	Ties	29 ^c		
Total		54		

a. Part3: Completing site records - numerical data < Part2: Completing site records - numerical data

b. Part3: Completing site records - numerical data > Part2: Completing site records - numerical data

c. Part3: Completing site records - numerical data = Part2: Completing site records - numerical data

Test Statistics^b

	Part3: Completing site records - numerical data - Part2: Completing site records - numerical data
Z	-4.435 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

1.4 Read and understand maps accurately

Part 2: Read and understand maps accurately	Part 3: Read and understand maps accurately			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	42	11		11
Able with minor adjustments		2		2
Able with substantial adjustments		1	1	1
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Read and understand maps accurately - Part2: Read and understand maps accurately	Negative Ranks	1 ^a	6.50	6.50
	Positive Ranks	11 ^b	6.50	71.50
	Ties	45 ^c		
	Total	57		

- a. Part3: Read and understand maps accurately < Part2: Read and understand maps accurately
- b. Part3: Read and understand maps accurately > Part2: Read and understand maps accurately
- c. Part3: Read and understand maps accurately = Part2: Read and understand maps accurately

Test Statistics^b

	Part3: Read and understand maps accurately - Part2: Read and understand maps accurately
Z	-2.887 ^a
Asymp. Sig. (2-tailed)	.004

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

1.5 Read and understand plans

Part 2: Read and understand plans	Part 3: Read and understand plans			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	42	11		12
Able with minor adjustments	1	2		1
Able with substantial adjustments		1	1	
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Read and understand plans - Part 2: Read and understand plans	Negative Ranks	2 ^a	7.00	14.00
	Positive Ranks	11 ^b	7.00	77.00
	Ties	45 ^c		
	Total	58		

a. Part3: Read and understand plans < Part 2: Read and understand plans

b. Part3: Read and understand plans > Part 2: Read and understand plans

c. Part3: Read and understand plans = Part 2: Read and understand plans

Test Statistics^b

	Part3: Read and understand plans - Part 2: Read and understand plans
Z	-2.496 ^a
Asymp. Sig. (2-tailed)	.013

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2. EXCAVATION

2.1 Cutting turf

Part 2: Cutting turf	Part 3: Cutting turf			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	36	5	1	29
Able with minor adjustments		1		
Able with substantial adjustments				1
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Cutting turf - Negative Ranks	0 ^a	.00	.00
Part2: Cutting turf Positive Ranks	6 ^b	3.50	21.00
Ties	37 ^c		
Total	43		

a. Part3: Cutting turf < Part2: Cutting turf

b. Part3: Cutting turf > Part2: Cutting turf

c. Part3: Cutting turf = Part2: Cutting turf

Test Statistics^b

	Part3: Cutting turf - Part2: Cutting turf
Z	-2.333 ^a
Asymp. Sig. (2-tailed)	.020

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2.2 Lifting turf

Part 2: Lifting turf	Part 3: Lifting turf			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	38	4	1	28
Able with minor adjustments		1		1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Lifting turf - Negative Ranks	0 ^a	.00	.00
Part2: Lifting turf - Positive Ranks	5 ^b	3.00	15.00
Ties	39 ^c		
Total	44		

a. Part3: Lifting turf < Part2: Lifting turf

b. Part3: Lifting turf > Part2: Lifting turf

c. Part3: Lifting turf = Part2: Lifting turf

Test Statistics^b

	Part3: Lifting turf - Part2: Lifting turf
Z	-2.121 ^a
Asymp. Sig. (2-tailed)	.034

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2.3 Excavation - large tools (pick, mattock, draw hoe)

Part 2: Excavation - large tools (pick, mattock, draw hoe)	Part 3: Excavation - large tools (pick, mattock, draw hoe)			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	54	7		
Able with minor adjustments	8	3		1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Excavation - large tools (pick, mattock, draw hoe) - Part2: Excavation - large tools (pick, mattock, draw hoe)	Negative Ranks	8 ^a	8.00	64.00
	Positive Ranks	7 ^b	8.00	56.00
Ties		57 ^c		
Total		72		

- a. Part3: Excavation - large tools (pick, mattock, draw hoe) < Part2: Excavation - large tools (pick, mattock, draw hoe)
- b. Part3: Excavation - large tools (pick, mattock, draw hoe) > Part2: Excavation - large tools (pick, mattock, draw hoe)
- c. Part3: Excavation - large tools (pick, mattock, draw hoe) = Part2: Excavation - large tools (pick, mattock, draw hoe)

Test Statistics^b

	Part3: Excavation - large tools (pick, mattock, draw hoe) - Part2: Excavation - large tools (pick, mattock, draw hoe)
Z	-.258 ^a
Asymp. Sig. (2-tailed)	.796

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

2.4 Excavation - light tools (trowelling)

Part 2: Excavation - light tools (trowelling)	Part 3: Excavation - light tools (trowelling)			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	69	2		
Able with minor adjustments	2			
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Excavation - light tools (trowelling) - Negative Ranks	2 ^a	2.50	5.00
Part3: Excavation - light tools (trowelling) - Positive Ranks	2 ^b	2.50	5.00
Part2: Excavation - light tools (trowelling) - Ties	69 ^c		
Total	73		

- a. Part3: Excavation - light tools (trowelling) < Part2: Excavation - light tools (trowelling)
- b. Part3: Excavation - light tools (trowelling) > Part2: Excavation - light tools (trowelling)
- c. Part3: Excavation - light tools (trowelling) = Part2: Excavation - light tools (trowelling)

Test Statistics^b

	Part3: Excavation - light tools (trowelling) - Part2: Excavation - light tools (trowelling)
Z	.000 ^a
Asymp. Sig. (2-tailed)	1.000

- a. The sum of negative ranks equals the sum of positive ranks.
- b. Wilcoxon Signed Ranks Test

2.5 Excavation - brushing

Part 2: Excavation - brushing	Part 3: Excavation - brushing			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	68			4
Able with minor adjustments	1			
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Excavation - brushing - Part2: Excavation - brushing	Negative Ranks	1 ^a	1.00	1.00
	Positive Ranks	0 ^b	.00	.00
	Ties	68 ^c		
	Total	69		

- a. Part3: Excavation - brushing < Part2: Excavation - brushing
- b. Part3: Excavation - brushing > Part2: Excavation - brushing
- c. Part3: Excavation - brushing = Part2: Excavation - brushing

Test Statistics^b

	Part3: Excavation - brushing - Part2: Excavation - brushing
Z	-1.000 ^a
Asymp. Sig. (2-tailed)	.317

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

2.6 Excavation - secateurs

Part 2: Excavation - secateurs	Part 3: Excavation - secateurs			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	22	2		48
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Excavation - secateurs - Part2: Excavation - secateurs	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	2 ^b	1.50	3.00
	Ties	22 ^c		
	Total	24		

a. Part3: Excavation - secateurs < Part2: Excavation - secateurs

b. Part3: Excavation - secateurs > Part2: Excavation - secateurs

c. Part3: Excavation - secateurs = Part2: Excavation - secateurs

Test Statistics^b

	Part3: Excavation - secateurs - Part2: Excavation - secateurs
Z	-1.414 ^a
Asymp. Sig. (2-tailed)	.157

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2.7 Clear waste material - on a spade

Part 2: Clear waste material - on a spade	Part 3: Clear waste material - on a spade			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	67	4		
Able with minor adjustments	1			1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Clear waste material - on a spade	Negative Ranks	1 ^a	3.00	3.00
	Positive Ranks	4 ^b	3.00	12.00
- Part2: Clear waste material - on a spade	Ties	67 ^c		
	Total	72		

- a. Part3: Clear waste material - on a spade < Part2: Clear waste material - on a spade
- b. Part3: Clear waste material - on a spade > Part2: Clear waste material - on a spade
- c. Part3: Clear waste material - on a spade = Part2: Clear waste material - on a spade

Test Statistics^b

	Part3: Clear waste material - on a spade - Part2: Clear waste material - on a spade
Z	-1.342 ^a
Asymp. Sig. (2-tailed)	.180

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

2.8 Clear waste material - by hand

Part 2: Clear waste material - by hand	Part 3: Clear waste material - by hand			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	73			
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Clear waste material - by hand - Part2: Clear waste material - by hand	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	0 ^b	.00	.00
Part2: Clear waste material - by hand	Ties	73 ^c		
	Total	73		

- a. Part3: Clear waste material - by hand < Part2: Clear waste material - by hand
- b. Part3: Clear waste material - by hand > Part2: Clear waste material - by hand
- c. Part3: Clear waste material - by hand = Part2: Clear waste material - by hand

Test Statistics^b

	Part3: Clear waste material - by hand - Part2: Clear waste material - by hand
Z	.000 ^a
Asymp. Sig. (2-tailed)	1.000

- a. The sum of negative ranks equals the sum of positive ranks.
- b. Wilcoxon Signed Ranks Test

2.9 Dispose waste material - wheelbarrow/bucket

Part 2: Dispose waste material - wheelbarrow/bucket	Part 3: Dispose waste material - wheelbarrow/bucket			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	60	3		
Able with minor adjustments	8			
Able with substantial adjustments		2		
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Dispose waste material - wheelbarrow/bucket -	Negative Ranks	10 ^a	7.00	70.00
Part2: Dispose waste material - wheelbarrow/bucket	Positive Ranks	3 ^b	7.00	21.00
	Ties	60 ^c		
	Total	73		

- a. Part3: Dispose waste material - wheelbarrow/bucket < Part2: Dispose waste material - wheelbarrow/bucket
- b. Part3: Dispose waste material - wheelbarrow/bucket > Part2: Dispose waste material - wheelbarrow/bucket
- c. Part3: Dispose waste material - wheelbarrow/bucket = Part2: Dispose waste material - wheelbarrow/bucket

Test Statistics^b

	Part3: Dispose waste material - wheelbarrow/bucket - Part2: Dispose waste material - wheelbarrow/bucket
Z	-1.941 ^a
Asymp. Sig. (2-tailed)	.052

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

2.10 Dispose waste material - empty wheelbarrow/bucket

Part 2: Dispose waste material - empty wheelbarrow/bucket	Part 3: Dispose waste material - empty wheelbarrow/bucket			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	64	1		
Able with minor adjustments	5	3		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Dispose waste material - empty wheelbarrow/bucket -	Negative Ranks	5 ^a	3.50	17.50
	Positive Ranks	1 ^b	3.50	3.50
Part2: Dispose waste material - empty wheelbarrow/bucket	Ties	67 ^c		
	Total	73		

- a. Part3: Dispose waste material - empty wheelbarrow/bucket < Part2: Dispose waste material - empty wheelbarrow/bucket
- b. Part3: Dispose waste material - empty wheelbarrow/bucket > Part2: Dispose waste material - empty wheelbarrow/bucket
- c. Part3: Dispose waste material - empty wheelbarrow/bucket = Part2: Dispose waste material - empty wheelbarrow/bucket

Test Statistics ^b

	Part3: Dispose waste material - empty wheelbarrow/bucket - Part2: Dispose waste material - empty wheelbarrow/bucket
Z	-1.633 ^a
Asymp. Sig. (2-tailed)	.102

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

2.11 Dry sieving

Part 2: Dry sieving	Part 3: Dry sieving			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	54	4		15
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Dry sieving - Negative Ranks	0 ^a	.00	.00
Part2: Dry sieving Positive Ranks	4 ^b	2.50	10.00
Ties	54 ^c		
Total	58		

a. Part3: Dry sieving < Part2: Dry sieving

b. Part3: Dry sieving > Part2: Dry sieving

c. Part3: Dry sieving = Part2: Dry sieving

Test Statistics^b

	Part3: Dry sieving - Part2: Dry sieving
Z	-2.000 ^a
Asymp. Sig. (2-tailed)	.046

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2.12 Use a sprayer

Part 2: Use a sprayer	Part 3: Use a sprayer			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	28	8		32
Able with minor adjustments	2			
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Use a sprayer - Negative Ranks	2 ^a	5.50	11.00
Part2: Use a sprayer Positive Ranks	8 ^b	5.50	44.00
Ties	28 ^c		
Total	38		

a. Part3: Use a sprayer < Part2: Use a sprayer

b. Part3: Use a sprayer > Part2: Use a sprayer

c. Part3: Use a sprayer = Part2: Use a sprayer

Test Statistics^b

	Part3: Use a sprayer - Part2: Use a sprayer
Z	-1.897 ^a
Asymp. Sig. (2-tailed)	.058

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2.13 Discern stratigraphy - tactile

Part 2: Discern stratigraphy - tactile	Part 3: Discern stratigraphy - tactile			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	42	28		1
Able with minor adjustments	1	1		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Discern stratigraphy - tactile - Part2: Discern stratigraphy - tactile	Negative Ranks	1 ^a	15.00	15.00
	Positive Ranks	28 ^b	15.00	420.00
Ties		43 ^c		
Total		72		

- a. Part3: Discern stratigraphy - tactile < Part2: Discern stratigraphy - tactile
- b. Part3: Discern stratigraphy - tactile > Part2: Discern stratigraphy - tactile
- c. Part3: Discern stratigraphy - tactile = Part2: Discern stratigraphy - tactile

Test Statistics^b

	Part3: Discern stratigraphy - tactile - Part2: Discern stratigraphy - tactile
Z	-5.014 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

2.14 Discern stratigraphy - vision

Part 2: Discern stratigraphy - vision	Part 3: Discern stratigraphy - vision			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	47	19	1	
Able with minor adjustments	3	3		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Discern stratigraphy - vision -	Negative Ranks	3 ^a	11.50	34.50
Part2: Discern stratigraphy - vision	Positive Ranks	20 ^b	12.08	241.50
	Ties	50 ^c		
	Total	73		

- a. Part3: Discern stratigraphy - vision < Part2: Discern stratigraphy - vision
- b. Part3: Discern stratigraphy - vision > Part2: Discern stratigraphy - vision
- c. Part3: Discern stratigraphy - vision = Part2: Discern stratigraphy - vision

Test Statistics^b

	Part3: Discern stratigraphy - vision - Part2: Discern stratigraphy - vision
Z	-3.530 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

2.15 Discern stratigraphy - colour

Part 2: Discern stratigraphy - colour	Part 3: Discern stratigraphy - colour			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	47	16	1	
Able with minor adjustments	3	3		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Discern stratigraphy - colour - Part2: Discern stratigraphy - colour	Negative Ranks	6 ^a	11.50	69.00
	Positive Ranks	17 ^b	12.18	207.00
Ties		50 ^c		
Total		73		

a. Part3: Discern stratigraphy - colour < Part2: Discern stratigraphy - colour

b. Part3: Discern stratigraphy - colour > Part2: Discern stratigraphy - colour

c. Part3: Discern stratigraphy - colour = Part2: Discern stratigraphy - colour

Test Statistics^b

	Part3: Discern stratigraphy - colour - Part2: Discern stratigraphy - colour
Z	-2.353 ^a
Asymp. Sig. (2-tailed)	.019

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

2.16 Discern stratigraphy - texture

Part 2: Discern stratigraphy - texture	Part 3: Discern stratigraphy - texture			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	45	24	1	2
Able with minor adjustments		1		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Discern stratigraphy - texture - Part2: Discern stratigraphy - texture	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	25 ^b	13.00	325.00
Ties		46 ^c		
Total		71		

- a. Part3: Discern stratigraphy - texture < Part2: Discern stratigraphy - texture
- b. Part3: Discern stratigraphy - texture > Part2: Discern stratigraphy - texture
- c. Part3: Discern stratigraphy - texture = Part2: Discern stratigraphy - texture

Test Statistics^b

	Part3: Discern stratigraphy - texture - Part2: Discern stratigraphy - texture
Z	-4.914 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

2.17 Open and close finds bags

Part 2: Open and close finds bags	Part 3: Open and close finds bags			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	65			4
Able with minor adjustments	4			
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Open and close finds bags - Part2: Open and close finds bags	Negative Ranks	4 ^a	2.50	10.00
	Positive Ranks	0 ^b	.00	.00
	Ties	65 ^c		
	Total	69		

- a. Part3: Open and close finds bags < Part2: Open and close finds bags
 b. Part3: Open and close finds bags > Part2: Open and close finds bags
 c. Part3: Open and close finds bags = Part2: Open and close finds bags

Test Statistics^b

	Part3: Open and close finds bags - Part2: Open and close finds bags
Z	-2.000 ^a
Asymp. Sig. (2-tailed)	.046

- a. Based on positive ranks.
 b. Wilcoxon Signed Ranks Test

2.18 Write labels

Part 2: Write labels	Part 3: Write labels			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	52	3	1	7
Able with minor adjustments	6	2		1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Write labels - Negative Ranks	6 ^a	5.00	30.00
Part2: Write labels Positive Ranks	4 ^b	6.25	25.00
Ties	54 ^c		
Total	64		

- a. Part3: Write labels < Part2: Write labels
- b. Part3: Write labels > Part2: Write labels
- c. Part3: Write labels = Part2: Write labels

Test Statistics^b

	Part3: Write labels - Part2: Write labels
Z	-.277 ^a
Asymp. Sig. (2-tailed)	.782

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

3. PLANNING AND SECTION DRAWING

3.1 Lay a tape measure

Part 2: Lay a tape measure	Part 3: Lay a tape measure			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	59	2		6
Able with minor adjustments	4	1		1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Lay a tape measure - Part2: Lay a tape measure	Negative Ranks	4 ^a	3.50	14.00
	Positive Ranks	2 ^b	3.50	7.00
Ties		60 ^c		
Total		66		

a. Part3: Lay a tape measure < Part2: Lay a tape measure

b. Part3: Lay a tape measure > Part2: Lay a tape measure

c. Part3: Lay a tape measure = Part2: Lay a tape measure

Test Statistics^b

	Part3: Lay a tape measure - Part2: Lay a tape measure
Z	-.816 ^a
Asymp. Sig. (2-tailed)	.414

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

3.2 Read a tape measure accurately

Part 2: Read a tape measure accurately	Part 3: Read a tape measure accurately			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	65			4
Able with minor adjustments	2	1		1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Read a tape measure accurately - Part2: Read a tape measure accurately	Negative Ranks	2 ^a	1.50	3.00
	Positive Ranks	0 ^b	.00	.00
Ties		66 ^c		
Total		68		

- a. Part3: Read a tape measure accurately < Part2: Read a tape measure accurately
- b. Part3: Read a tape measure accurately > Part2: Read a tape measure accurately
- c. Part3: Read a tape measure accurately = Part2: Read a tape measure accurately

Test Statistics^b

Part3: Read a tape measure accurately - Part2: Read a tape measure accurately	
Z	-1.414 ^a
Asymp. Sig. (2-tailed)	.157

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

3.3 See area to be planned

Part 2: See area to be planned	Part 3: See area to be planned			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	56	4	1	7
Able with minor adjustments	3			2
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: See area to be planned - Part2: See area to be planned	3 ^a	4.00	12.00
	5 ^b	4.80	24.00
Ties	56 ^c		
Total	64		

a. Part3: See area to be planned < Part2: See area to be planned

b. Part3: See area to be planned > Part2: See area to be planned

c. Part3: See area to be planned = Part2: See area to be planned

Test Statistics^b

	Part3: See area to be planned - Part2: See area to be planned
Z	-.905 ^a
Asymp. Sig. (2-tailed)	.366

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

3.4 Handle and manipulate planning frame

Part 2: Handle and manipulate planning frame	Part 3: Handle and manipulate planning frame			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	26	12		25
Able with minor adjustments	2	1		5
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Handle and manipulate planning frame - Part2: Handle and manipulate planning frame	Negative Ranks	2 ^a	7.50	15.00
	Positive Ranks	12 ^b	7.50	90.00
	Ties	27 ^c		
	Total	41		

- a. Part3: Handle and manipulate planning frame < Part2: Handle and manipulate planning frame
- b. Part3: Handle and manipulate planning frame > Part2: Handle and manipulate planning frame
- c. Part3: Handle and manipulate planning frame = Part2: Handle and manipulate planning frame

Test Statistics^b

	Part3: Handle and manipulate planning frame - Part2: Handle and manipulate planning frame
Z	-2.673 ^a
Asymp. Sig. (2-tailed)	.008

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

3.5 Drawing - ability

Part 2: Drawing - ability	Part 3: Drawing - ability			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	39	13	5	9
Able with minor adjustments	1	1		3
Able with substantial adjustments				2
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Drawing - ability - Negative Ranks	1 ^a	7.50	7.50
Part2: Drawing - ability Positive Ranks	18 ^b	10.14	182.50
Ties	40 ^c		
Total	59		

- a. Part3: Drawing - ability < Part2: Drawing - ability
- b. Part3: Drawing - ability > Part2: Drawing - ability
- c. Part3: Drawing - ability = Part2: Drawing - ability

Test Statistics^b

	Part3: Drawing - ability - Part2: Drawing - ability
Z	-3.704 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

3.6 Drawing - use graph paper

Part 2: Drawing - use graph paper	Part 3: Drawing - use graph paper			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	46	11	2	12
Able with minor adjustments		1		1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Drawing - use graph paper - Negative Ranks	0 ^a	.00	.00
Part3: Drawing - use graph paper - Positive Ranks	13 ^b	7.00	91.00
Part2: Drawing - use graph paper - Ties	47 ^c		
Total	60		

- a. Part3: Drawing - use graph paper < Part2: Drawing - use graph paper
 b. Part3: Drawing - use graph paper > Part2: Drawing - use graph paper
 c. Part3: Drawing - use graph paper = Part2: Drawing - use graph paper

Test Statistics^b

	Part3: Drawing - use graph paper - Part2: Drawing - use graph paper
Z	-3.419 ^a
Asymp. Sig. (2-tailed)	.001

- a. Based on negative ranks.
 b. Wilcoxon Signed Ranks Test

4. PROCESSING OF ARTEFACTS

4.1 Handling finds

Part 2: Handling finds	Part 3: Handling finds			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	59	2		11
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Handling finds - Negative Ranks	0 ^a	.00	.00
Part2: Handling finds Positive Ranks	2 ^b	1.50	3.00
Ties	59 ^c		
Total	61		

a. Part3: Handling finds < Part2: Handling finds

b. Part3: Handling finds > Part2: Handling finds

c. Part3: Handling finds = Part2: Handling finds

Test Statistics^b

	Part3: Handling finds - Part2: Handling finds
Z	-1.414 ^a
Asymp. Sig. (2-tailed)	.157

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

4.2 Washing finds

Part 2: Washing finds	Part 3: Washing finds			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	37	3		32
Able with minor adjustments				1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Washing finds - Negative Ranks	0 ^a	.00	.00
Part2: Washing finds Positive Ranks	3 ^b	2.00	6.00
Ties	37 ^c		
Total	40		

- a. Part3: Washing finds < Part2: Washing finds
- b. Part3: Washing finds > Part2: Washing finds
- c. Part3: Washing finds = Part2: Washing finds

Test Statistics^b

	Part3: Washing finds - Part2: Washing finds
Z	-1.732 ^a
Asymp. Sig. (2-tailed)	.083

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

4.3 Sorting finds

Part 2: Sorting finds	Part 3: Sorting finds			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	34	13		26
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Sorting finds - Negative Ranks	0 ^a	.00	.00
Part2: Sorting finds Positive Ranks	13 ^b	7.00	91.00
Ties	34 ^c		
Total	47		

- a. Part3: Sorting finds < Part2: Sorting finds
- b. Part3: Sorting finds > Part2: Sorting finds
- c. Part3: Sorting finds = Part2: Sorting finds

Test Statistics^b

	Part3: Sorting finds - Part2: Sorting finds
Z	-3.606 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

4.4 Identifying finds - tactile

Part 2: Identifying finds - tactile	Part 3: Identifying finds - tactile			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	32	25	1	12
Able with minor adjustments		1		1
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Identifying finds - tactile - Part2: Identifying finds - tactile	0 ^a	.00	.00
Negative Ranks	26 ^b	13.50	351.00
Positive Ranks	33 ^c		
Ties			
Total	59		

a. Part3: Identifying finds - tactile < Part2: Identifying finds - tactile

b. Part3: Identifying finds - tactile > Part2: Identifying finds - tactile

c. Part3: Identifying finds - tactile = Part2: Identifying finds - tactile

Test Statistics^b

	Part3: Identifying finds - tactile - Part2: Identifying finds - tactile
Z	-5.014 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

4.5 Identifying finds - colour

Part 2: Identifying finds - colour	Part 3: Identifying finds - colour			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	38	16	1	9
Able with minor adjustments	3	3		3
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Identifying finds - colour - Part2: Identifying finds - colour	3 ^a	10.00	30.00
Negative Ranks			
Positive Ranks	17 ^b	10.59	180.00
Ties	41 ^c		
Total	61		

a. Part3: Identifying finds - colour < Part2: Identifying finds - colour

b. Part3: Identifying finds - colour > Part2: Identifying finds - colour

c. Part3: Identifying finds - colour = Part2: Identifying finds - colour

Test Statistics^b

	Part3: Identifying finds - colour - Part2: Identifying finds - colour
Z	-3.128 ^a
Asymp. Sig. (2-tailed)	.002

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

4.6 Identifying finds - texture

Part 2: Identifying finds - texture	Part 3: Identifying finds - texture			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	41	20		11
Able with minor adjustments				1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Identifying finds - texture - Part2: Identifying finds - texture	0 ^a	.00	.00
Negative Ranks			
Positive Ranks	20 ^b	10.50	210.00
Ties	41 ^c		
Total	61		

a. Part3: Identifying finds - texture < Part2: Identifying finds - texture

b. Part3: Identifying finds - texture > Part2: Identifying finds - texture

c. Part3: Identifying finds - texture = Part2: Identifying finds - texture

Test Statistics^b

	Part3: Identifying finds - texture - Part2: Identifying finds - texture
Z	-4.472 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

4.7 Identifying finds - vision

Part 2: Identifying finds - vision	Part 3: Identifying finds - vision			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	44	16		11
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Identifying finds - vision - Part2: Identifying finds - vision	0 ^a	.00	.00
Negative Ranks	16 ^b	8.50	136.00
Positive Ranks	45 ^c		
Ties	61		
Total			

a. Part3: Identifying finds - vision < Part2: Identifying finds - vision

b. Part3: Identifying finds - vision > Part2: Identifying finds - vision

c. Part3: Identifying finds - vision = Part2: Identifying finds - vision

Test Statistics^b

	Part3: Identifying finds - vision - Part2: Identifying finds - vision
Z	-4.000 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

4.8 Open and close finds bags

Part 2: Open and close finds bags	Part 3: Open and close finds bags			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	59			10
Able with minor adjustments	3			1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Open and close finds bags - Part2: Open and close finds bags	Negative Ranks	3 ^a	2.00	6.00
	Positive Ranks	0 ^b	.00	.00
	Ties	59 ^c		
	Total	62		

- a. Part3: Open and close finds bags < Part2: Open and close finds bags
- b. Part3: Open and close finds bags > Part2: Open and close finds bags
- c. Part3: Open and close finds bags = Part2: Open and close finds bags

Test Statistics^b

	Part3: Open and close finds bags - Part2: Open and close finds bags
Z	-1.732 ^a
Asymp. Sig. (2-tailed)	.083

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

4.9 Marking finds

Part 2: Marking finds	Part 3: Marking finds			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	36	5	1	22
Able with minor adjustments	2			7
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Marking finds - Negative Ranks	2 ^a	4.00	8.00
Part2: Marking finds Positive Ranks	6 ^b	4.67	28.00
Ties	36 ^c		
Total	44		

a. Part3: Marking finds < Part2: Marking finds

b. Part3: Marking finds > Part2: Marking finds

c. Part3: Marking finds = Part2: Marking finds

Test Statistics^b

	Part3: Marking finds - Part2: Marking finds
Z	-1.508 ^a
Asymp. Sig. (2-tailed)	.132

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5. ENVIRONMENTAL SAMPLING

5.1 Take bulk samples

Part 2: Take bulk samples	Part 3: Take bulk samples			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	19	13	1	36
Able with minor adjustments	1			1
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Take bulk samples - Part2: Take bulk samples	Negative Ranks	1 ^a	7.50	7.50
Take bulk samples	Positive Ranks	14 ^b	8.04	112.50
	Ties	19 ^c		
	Total	34		

a. Part3: Take bulk samples < Part2: Take bulk samples

b. Part3: Take bulk samples > Part2: Take bulk samples

c. Part3: Take bulk samples = Part2: Take bulk samples

Test Statistics^b

	Part3: Take bulk samples - Part2: Take bulk samples
Z	-3.300 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.2 Wet sieving

Part 2: Wet sieving	Part 3: Wet sieving			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	30	9		32
Able with minor adjustments		1		
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Wet sieving - Negative Ranks	0 ^a	.00	.00
Part2: Wet sieving Positive Ranks	9 ^b	5.00	45.00
Ties	31 ^c		
Total	40		

a. Part3: Wet sieving < Part2: Wet sieving

b. Part3: Wet sieving > Part2: Wet sieving

c. Part3: Wet sieving = Part2: Wet sieving

Test Statistics^b

	Part3: Wet sieving - Part2: Wet sieving
Z	-3.000 ^a
Asymp. Sig. (2-tailed)	.003

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.3 Sorting samples

Part 2: Sorting samples	Part 3: Sorting samples			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	24	10	1	35
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

3 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sorting samples - Small sized material	Negative Ranks	0 ^a	.00	.00
Part2: Sorting samples - Small sized material	Positive Ranks	11 ^b	6.00	66.00
	Ties	24 ^c		
	Total	35		

- a. Part3: Sorting samples - Small sized material < Part2: Sorting samples - Small sized material
- b. Part3: Sorting samples - Small sized material > Part2: Sorting samples - Small sized material
- c. Part3: Sorting samples - Small sized material = Part2: Sorting samples - Small sized material

Test Statistics^b

	Part3: Sorting samples - Small sized material - Part2: Sorting samples - Small sized material
Z	-3.207 ^a
Asymp. Sig. (2-tailed)	.001

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

5.4 Sorting samples – tactile

Part 2: Sorting samples – tactile	Part 3: Sorting samples – tactile			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	16	17	1	35
Able with minor adjustments		1		1
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sorting samples - tactile - Part2: Sorting samples - tactile	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	18 ^b	9.50	171.00
	Ties	17 ^c		
	Total	35		

a. Part3: Sorting samples - tactile < Part2: Sorting samples - tactile

b. Part3: Sorting samples - tactile > Part2: Sorting samples - tactile

c. Part3: Sorting samples - tactile = Part2: Sorting samples - tactile

Test Statistics^b

	Part3: Sorting samples - tactile - Part2: Sorting samples - tactile
Z	-4.146 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.5 Sorting samples – colour

Part 2: Sorting samples – colour	Part 3: Sorting samples – colour			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	14	16	1	32
Able with minor adjustments	3	2		3
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sorting samples - colour - Part2: Sorting samples - colour	Negative Ranks	3 ^a	10.00	30.00
	Positive Ranks	17 ^b	10.59	180.00
	Ties	16 ^c		
	Total	36		

a. Part3: Sorting samples - colour < Part2: Sorting samples - colour

b. Part3: Sorting samples - colour > Part2: Sorting samples - colour

c. Part3: Sorting samples - colour = Part2: Sorting samples - colour

Test Statistics^b

	Part3: Sorting samples - colour - Part2: Sorting samples - colour
Z	-3.128 ^a
Asymp. Sig. (2-tailed)	.002

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.6 Sorting samples – texture

Part 2: Sorting samples – texture	Part 3: Sorting samples – texture			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	15	18	1	36
Able with minor adjustments	1			
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sorting samples - texture	Negative Ranks	1 ^a	10.00	10.00
Part2: Sorting samples - texture	Positive Ranks	19 ^b	10.53	200.00
	Ties	15 ^c		
	Total	35		

a. Part3: Sorting samples - texture < Part2: Sorting samples - texture

b. Part3: Sorting samples - texture > Part2: Sorting samples - texture

c. Part3: Sorting samples - texture = Part2: Sorting samples - texture

Test Statistics^b

	Part3: Sorting samples - texture - Part2: Sorting samples - texture
Z	-3.962 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.7 Sorting samples – vision

Part 2: Sorting samples – vision	Part 3: Sorting samples – vision			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	20	16	1	32
Able with minor adjustments		1		
Able with substantial adjustments				
Not applicable				

3 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sorting samples - vision - Part2: Sorting samples - vision	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	17 ^b	9.00	153.00
	Ties	21 ^c		
	Total	38		

a. Part3: Sorting samples - vision < Part2: Sorting samples - vision

b. Part3: Sorting samples - vision > Part2: Sorting samples - vision

c. Part3: Sorting samples - vision = Part2: Sorting samples - vision

Test Statistics^b

	Part3: Sorting samples - vision - Part2: Sorting samples - vision
Z	-4.025 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.8 Open and close finds bags

Part 2: Open and close finds bags	Part 3: Open and close finds bags			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	43	2	1	21
Able with minor adjustments	3			1
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Open and close finds bags - Part2: Open and close finds bags	Negative Ranks	3 ^a	3.00	9.00
	Positive Ranks	3 ^b	4.00	12.00
	Ties	43 ^c		
	Total	49		

a. Part3: Open and close finds bags < Part2: Open and close finds bags

b. Part3: Open and close finds bags > Part2: Open and close finds bags

c. Part3: Open and close finds bags = Part2: Open and close finds bags

Test Statistics^b

	Part3: Open and close finds bags - Part2: Open and close finds bags
Z	-.333 ^a
Asymp. Sig. (2-tailed)	.739

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

5.9 Mark sample trays/boxes

Part 2: Mark sample trays/boxes	Part 3: Mark sample trays/boxes			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	31	8		24
Able with minor adjustments	1	4		4
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Mark sample trays/boxes - Part2: Mark sample trays/boxes	Negative Ranks	1 ^a	5.00	5.00
	Positive Ranks	8 ^b	5.00	40.00
	Ties	35 ^c		
	Total	44		

a. Part3: Mark sample trays/boxes < Part2: Mark sample trays/boxes

b. Part3: Mark sample trays/boxes > Part2: Mark sample trays/boxes

c. Part3: Mark sample trays/boxes = Part2: Mark sample trays/boxes

Test Statistics^b

	Part3: Mark sample trays/boxes - Part2: Mark sample trays/boxes
Z	-2.333 ^a
Asymp. Sig. (2-tailed)	.020

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

6. SURVEYING

6.1 Lay a tape measure

Part 2: Lay a tape measure	Part 3: Lay a tape measure			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	59	2		6
Able with minor adjustments	5			1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Lay a tape measure - Part2: Lay a tape measure	Negative Ranks	5 ^a	4.00	20.00
	Positive Ranks	2 ^b	4.00	8.00
	Ties	59 ^c		
	Total	66		

a. Part3: Lay a tape measure < Part2: Lay a tape measure

b. Part3: Lay a tape measure > Part2: Lay a tape measure

c. Part3: Lay a tape measure = Part2: Lay a tape measure

Test Statistics^b

	Part3: Lay a tape measure - Part2: Lay a tape measure
Z	-1.134 ^a
Asymp. Sig. (2-tailed)	.257

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

6.2 Read a tape measure accurately

Part 2: Read a tape measure accurately	Part 3: Read a tape measure accurately			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	62	1		6
Able with minor adjustments	2	1		1
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Read a tape measure accurately - Part2: Read a tape measure accurately	Negative Ranks	2 ^a	2.00	4.00
	Positive Ranks	1 ^b	2.00	2.00
	Ties	63 ^c		
	Total	66		

- a. Part3: Read a tape measure accurately < Part2: Read a tape measure accurately
- b. Part3: Read a tape measure accurately > Part2: Read a tape measure accurately
- c. Part3: Read a tape measure accurately = Part2: Read a tape measure accurately

Test Statistics^b

	Part3: Read a tape measure accurately - Part2: Read a tape measure accurately
Z	-.577 ^a
Asymp. Sig. (2-tailed)	.564

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

6.3 Ranging poles – hold

Part 2: Ranging poles – hold	Part 3: Ranging poles – hold			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	52	1		16
Able with minor adjustments	2		1	1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Ranging poles - hold - Part2: Ranging poles - hold	2 ^a	2.50	5.00
	2 ^b	2.50	5.00
Ties	52 ^c		
Total	56		

a. Part3: Ranging poles - hold < Part2: Ranging poles - hold

b. Part3: Ranging poles - hold > Part2: Ranging poles - hold

c. Part3: Ranging poles - hold = Part2: Ranging poles - hold

Test Statistics^b

	Part3: Ranging poles - hold - Part2: Ranging poles - hold
Z	.000 ^a
Asymp. Sig. (2-tailed)	1.000

a. The sum of negative ranks equals the sum of positive ranks.

b. Wilcoxon Signed Ranks Test

6.4 Ranging poles – line up

Part 2: Ranging poles – line up	Part 3: Ranging poles – line up			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	49	1	2	19
Able with minor adjustments	1			1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Ranging poles - line up - Part2: Ranging poles - line up	1 ^a	1.50	1.50
	3 ^b	2.83	8.50
	49 ^c		
Total	53		

- a. Part3: Ranging poles - line up < Part2: Ranging poles - line up
- b. Part3: Ranging poles - line up > Part2: Ranging poles - line up
- c. Part3: Ranging poles - line up = Part2: Ranging poles - line up

Test Statistics^b

	Part3: Ranging poles - line up - Part2: Ranging poles - line up
Z	-1.300 ^a
Asymp. Sig. (2-tailed)	.194

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

7. INSTRUMENT SURVEY

7.1 Measuring staff – hold

Part 2: Measuring staff – hold	Part 3: Measuring staff – hold			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	44	4		20
Able with minor adjustments	3	1		
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Measuring staff - hold < Part2: Measuring staff - hold	3 ^a	4.00	12.00
Part3: Measuring staff - hold > Part2: Measuring staff - hold	4 ^b	4.00	16.00
Ties	45 ^c		
Total	52		

a. Part3: Measuring staff - hold < Part2: Measuring staff - hold

b. Part3: Measuring staff - hold > Part2: Measuring staff - hold

c. Part3: Measuring staff - hold = Part2: Measuring staff - hold

Test Statistics^b

	Part3: Measuring staff - hold - Part2: Measuring staff - hold
Z	-.378 ^a
Asymp. Sig. (2-tailed)	.705

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.2 Measuring staff – extend

Part 2: Measuring staff – extend	Part 3: Measuring staff – extend			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	38	6		21
Able with minor adjustments	3			3
Able with substantial adjustments	1			
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Measuring staff - extend - Part2: Measuring staff - extend	4 ^a	6.25	25.00
Negative Ranks			
Positive Ranks	6 ^b	5.00	30.00
Ties	38 ^c		
Total	48		

a. Part3: Measuring staff - extend < Part2: Measuring staff - extend

b. Part3: Measuring staff - extend > Part2: Measuring staff - extend

c. Part3: Measuring staff - extend = Part2: Measuring staff - extend

Test Statistics^b

	Part3: Measuring staff - extend - Part2: Measuring staff - extend
Z	-.277 ^a
Asymp. Sig. (2-tailed)	.782

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.3 Level – set up tripod

Part 2: Level – set up tripod	Part 3: Level – set up tripod			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	34	7	2	23
Able with minor adjustments				6
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Level - set up tripod - Part2: Level - set up tripod	0 ^a	.00	.00
Negative Ranks			
Positive Ranks	9 ^b	5.00	45.00
Ties	34 ^c		
Total	43		

a. Part3: Level - set up tripod < Part2: Level - set up tripod

b. Part3: Level - set up tripod > Part2: Level - set up tripod

c. Part3: Level - set up tripod = Part2: Level - set up tripod

Test Statistics^b

	Part3: Level - set up tripod - Part2: Level - set up tripod
Z	-2.810 ^a
Asymp. Sig. (2-tailed)	.005

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.4 Level – attach to tripod

Part 2: Level – attach to tripod	Part 3: Level – attach to tripod			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	33	5	1	22
Able with minor adjustments	3		1	6
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Level - attach to tripod - Part2: Level - attach to tripod	Negative Ranks	3 ^a	5.00	15.00
	Positive Ranks	7 ^b	5.71	40.00
	Ties	33 ^c		
	Total	43		

a. Part3: Level - attach to tripod < Part2: Level - attach to tripod

b. Part3: Level - attach to tripod > Part2: Level - attach to tripod

c. Part3: Level - attach to tripod = Part2: Level - attach to tripod

Test Statistics^b

	Part3: Level - attach to tripod - Part2: Level - attach to tripod
Z	-1.387 ^a
Asymp. Sig. (2-tailed)	.166

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.5 Level – use visually

Part 2: Level – use visually	Part 3: Level – use visually			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	35	6	1	25
Able with minor adjustments	1		1	1
Able with substantial adjustments				1
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Level - use visually - Part2: Level - use visually	Negative Ranks	1 ^a	4.50	4.50
	Positive Ranks	8 ^b	5.06	40.50
	Ties	35 ^c		
	Total	44		

a. Part3: Level - use visually < Part2: Level - use visually

b. Part3: Level - use visually > Part2: Level - use visually

c. Part3: Level - use visually = Part2: Level - use visually

Test Statistics^b

	Part3: Level - use visually - Part2: Level - use visually
Z	-2.309 ^a
Asymp. Sig. (2-tailed)	.021

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.6 Level – manual focussing

Part 2: Level – manual focussing	Part 3: Level – manual focussing			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	34	6	2	30
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Level - manual focussing - Part2: Level - manual focussing	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	8 ^b	4.50	36.00
	Ties	34 ^c		
	Total	42		

a. Part3: Level - manual focussing < Part2: Level - manual focussing

b. Part3: Level - manual focussing > Part2: Level - manual focussing

c. Part3: Level - manual focussing = Part2: Level - manual focussing

Test Statistics^b

	Part3: Level - manual focussing - Part2: Level - manual focussing
Z	-2.640 ^a
Asymp. Sig. (2-tailed)	.008

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.7 Level – read measurements

Part 2: Level – read measurements	Part 3: Level – read measurements			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	38	3	2	27
Able with minor adjustments		1		1
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Level - read measurements - Part2: Level - read measurements	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	5 ^b	3.00	15.00
Ties		39 ^c		
Total		44		

a. Part3: Level - read measurements < Part2: Level - read measurements

b. Part3: Level - read measurements > Part2: Level - read measurements

c. Part3: Level - read measurements = Part2: Level - read measurements

Test Statistics^b

	Part3: Level - read measurements - Part2: Level - read measurements
Z	-2.070 ^a
Asymp. Sig. (2-tailed)	.038

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.8 Total Station – set up tripod

Part 2: Total Station – set up tripod	Part 3: Total Station – set up tripod			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	26	7	2	31
Able with minor adjustments				6
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Total Station - set up tripod - Part2: Total Station - set up tripod	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	9 ^b	5.00	45.00
	Ties	26 ^c		
	Total	35		

a. Part3: Total Station - set up tripod < Part2: Total Station - set up tripod

b. Part3: Total Station - set up tripod > Part2: Total Station - set up tripod

c. Part3: Total Station - set up tripod = Part2: Total Station - set up tripod

Test Statistics^b

	Part3: Total Station - set up tripod - Part2: Total Station - set up tripod
Z	-2.810 ^a
Asymp. Sig. (2-tailed)	.005

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.9 Total Station – attach to tripod

Part 2: Total Station – attach to tripod	Part 3: Total Station – attach to tripod			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	25	5	1	30
Able with minor adjustments	3	1		6
Able with substantial adjustments				1
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Total Station - attach to tripod	Negative Ranks	3 ^a	4.50	13.50
Part2: Total Station - attach to tripod	Positive Ranks	6 ^b	5.25	31.50
	Ties	26 ^c		
	Total	35		

a. Part3: Total Station - attach to tripod < Part2: Total Station - attach to tripod

b. Part3: Total Station - attach to tripod > Part2: Total Station - attach to tripod

c. Part3: Total Station - attach to tripod = Part2: Total Station - attach to tripod

Test Statistics^b

	Part3: Total Station - attach to tripod - Part2: Total Station - attach to tripod
Z	-1.155 ^a
Asymp. Sig. (2-tailed)	.248

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.10 Total Station – use visually

Part 2: Total Station – use visually	Part 3: Total Station – use visually			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	29	7	1	31
Able with minor adjustments		1		2
Able with substantial adjustments				1
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Total Station - use visually - Part2: Total Station - use visually	0 ^a	.00	.00
	8 ^b	4.50	36.00
	30 ^c		
Total	38		

a. Part3: Total Station - use visually < Part2: Total Station - use visually

b. Part3: Total Station - use visually > Part2: Total Station - use visually

c. Part3: Total Station - use visually = Part2: Total Station - use visually

Test Statistics^b

	Part3: Total Station - use visually - Part2: Total Station - use visually
Z	-2.714 ^a
Asymp. Sig. (2-tailed)	.007

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.11 Total Station – manual focussing

Part 2: Total Station – manual focussing	Part 3: Total Station – manual focussing			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	25	9	2	36
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Total Station - manual focussing - Negative Ranks	0 ^a	.00	.00
Part3: Total Station - manual focussing - Positive Ranks	11 ^b	6.00	66.00
Part2: Total Station - manual focussing - Ties	25 ^c		
Total	36		

a. Part3: Total Station - manual focussing < Part2: Total Station - manual focussing

b. Part3: Total Station - manual focussing > Part2: Total Station - manual focussing

c. Part3: Total Station - manual focussing = Part2: Total Station - manual focussing

Test Statistics^b

	Part3: Total Station - manual focussing - Part2: Total Station - manual focussing
Z	-3.127 ^a
Asymp. Sig. (2-tailed)	.002

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.12 Total Station – read measurements

Part 2: Total Station – read measurements	Part 3: Total Station – read measurements			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	28	7	2	33
Able with minor adjustments				2
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Total Station - read measurements - Negative Ranks	0 ^a	.00	.00
Part3: Total Station - read measurements - Positive Ranks	9 ^b	5.00	45.00
Part2: Total Station - read measurements - Ties	28 ^c		
Total	37		

- a. Part3: Total Station - read measurements < Part2: Total Station - read measurements
- b. Part3: Total Station - read measurements > Part2: Total Station - read measurements
- c. Part3: Total Station - read measurements = Part2: Total Station - read measurements

Test Statistics^b

	Part3: Total Station - read measurements - Part2: Total Station - read measurements
Z	-2.810 ^a
Asymp. Sig. (2-tailed)	.005

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

7.13 Total Station – record readings on screen

Part 2: Total Station – record readings on screen	Part 3: Total Station – record readings on screen			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	22	12	2	36
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Total Station - record readings on screen - Part2: Total Station - record readings on screen	0 ^a	.00	.00
Negative Ranks	14 ^b	7.50	105.00
Positive Ranks	22 ^c		
Ties	36		
Total			

- a. Part3: Total Station - record readings on screen < Part2: Total Station - record readings on screen
- b. Part3: Total Station - record readings on screen > Part2: Total Station - record readings on screen
- c. Part3: Total Station - record readings on screen = Part2: Total Station - record readings on screen

Test Statistics^b

	Part3: Total Station - record readings on screen - Part2: Total Station - record readings on screen
Z	-3.557 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

7.14 Total Station – audible signals

Part 2: Total Station – audible signals	Part 3: Total Station – audible signals			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	22	8	2	38
Able with minor adjustments	1			
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Total Station - audible signals -	Negative Ranks	1 ^a	5.00	5.00
Part2: Total Station - audible signals	Positive Ranks	10 ^b	6.10	61.00
	Ties	22 ^c		
	Total	33		

a. Part3: Total Station - audible signals < Part2: Total Station - audible signals

b. Part3: Total Station - audible signals > Part2: Total Station - audible signals

c. Part3: Total Station - audible signals = Part2: Total Station - audible signals

Test Statistics^b

	Part3: Total Station - audible signals - Part2: Total Station - audible signals
Z	-2.653 ^a
Asymp. Sig. (2-tailed)	.008

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.15 Total Station – attach crystal to staff

Part 2: Total Station – attach crystal to staff	Part 3: Total Station – attach crystal to staff			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	24	5	4	39
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Total Station - attach prism to staff - Negative Ranks	0 ^a	.00	.00
Part3: Total Station - attach prism to staff - Positive Ranks	9 ^b	5.00	45.00
Part2: Total Station - attach prism to staff - Ties	24 ^c		
Total	33		

a. Part3: Total Station - attach prism to staff < Part2: Total Station - attach prism to staff

b. Part3: Total Station - attach prism to staff > Part2: Total Station - attach prism to staff

c. Part3: Total Station - attach prism to staff = Part2: Total Station - attach prism to staff

Test Statistics^b

	Part3: Total Station - attach prism to staff - Part2: Total Station - attach prism to staff
Z	-2.739 ^a
Asymp. Sig. (2-tailed)	.006

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.16 Prismatic compass – use

Part 2: Prismatic compass – use	Part 3: Prismatic compass – use			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	12	8	5	43
Able with minor adjustments				2
Able with substantial adjustments				
Not applicable				

3 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Prismatic compass - use - Part2: Prismatic compass - use	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	13 ^b	7.00	91.00
	Ties	12 ^c		
	Total	25		

a. Part3: Prismatic compass - use < Part2: Prismatic compass - use

b. Part3: Prismatic compass - use > Part2: Prismatic compass - use

c. Part3: Prismatic compass - use = Part2: Prismatic compass - use

Test Statistics^b

	Part3: Prismatic compass - use - Part2: Prismatic compass - use
Z	-3.286 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

7.17 Optical square – use

Part 2: Optical square – use	Part 3: Optical square – use			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	9	8	3	46
Able with minor adjustments			1	2
Able with substantial adjustments				1
Not applicable				

3 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Optical square - use < Part2: Optical square - use	0 ^a	.00	.00
Part3: Optical square - use > Part2: Optical square - use	12 ^b	6.50	78.00
Ties	9 ^c		
Total	21		

a. Part3: Optical square - use < Part2: Optical square - use

b. Part3: Optical square - use > Part2: Optical square - use

c. Part3: Optical square - use = Part2: Optical square - use

Test Statistics^b

	Part3: Optical square - use - Part2: Optical square - use
Z	-3.217 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

8. SURFACE SURVEY

8.1 Field walking – traverse

Part 2: Field walking – traverse	Part 3: Field walking – traverse			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	29	6		30
Able with minor adjustments	2			3
Able with substantial adjustments	1			1
Not applicable				

1 missing participant

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Field walking - traverse - Part2: Field walking - traverse	3 ^a	6.00	18.00
	6 ^b	4.50	27.00
	29 ^c		
Total	38		

a. Part3: Field walking - traverse < Part2: Field walking - traverse

b. Part3: Field walking - traverse > Part2: Field walking - traverse

c. Part3: Field walking - traverse = Part2: Field walking - traverse

Test Statistics^b

	Part3: Field walking - traverse - Part2: Field walking - traverse
Z	-.577 ^a
Asymp. Sig. (2-tailed)	.564

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

8.2 Field walking – identifying material

Part 2: Field walking – identifying material	Part 3: Field walking – identifying material			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	30	15		22
Able with minor adjustments				6
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Field walking - identify material -	Negative Ranks	0 ^a	.00	.00
Part2: Field walking - identify material -	Positive Ranks	15 ^b	8.00	120.00
	Ties	30 ^c		
	Total	45		

- a.
Part3: Field walking - identify material < Part2: Field walking - identify material
- b.
Part3: Field walking - identify material > Part2: Field walking - identify material
- c.
Part3: Field walking - identify material = Part2: Field walking - identify material

Test Statistics^b

	Part3: Field walking - identify material - Part2: Field walking - identify material
Z	-3.873 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

8.3 Field walking – pick up material

Part 2: Field walking – pick up material	Part 3: Field walking – pick up material			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	43	2		28
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Field walking - pick up material - Part2: Field walking - pick up material	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	2 ^b	1.50	3.00
	Ties	43 ^c		
	Total	45		

- a. Part3: Field walking - pick up material < Part2: Field walking - pick up material
- b. Part3: Field walking - pick up material > Part2: Field walking - pick up material
- c. Part3: Field walking - pick up material = Part2: Field walking - pick up material

Test Statistics^b

	Part3: Field walking - pick up material - Part2: Field walking - pick up material
Z	-1.414 ^a
Asymp. Sig. (2-tailed)	.157

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

8.4 Field survey – traverse

Part 2: Field survey – traverse	Part 3: Field survey – traverse			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	31	4	1	29
Able with minor adjustments	2			3
Able with substantial adjustments		1		1
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Field survey - traverse - Part2: Field survey - traverse Negative Ranks	3 ^a	4.00	12.00
Positive Ranks	5 ^b	4.80	24.00
Ties	31 ^c		
Total	39		

- a. Part3: Field survey - traverse < Part2: Field survey - traverse
- b. Part3: Field survey - traverse > Part2: Field survey - traverse
- c. Part3: Field survey - traverse = Part2: Field survey - traverse

Test Statistics^b

	Part3: Field survey - traverse - Part2: Field survey - traverse
Z	-.905 ^a
Asymp. Sig. (2-tailed)	.366

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

8.5 Field survey – identifying surface features

Part 2: Field survey – identifying surface features	Part 3: Field survey – identifying surface features			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	28	8	2	23
Able with minor adjustments	2	2	1	7
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Field survey - identify surface features - Negative Ranks	2 ^a	6.00	12.00
Part3: Field survey - identify surface features - Positive Ranks	11 ^b	7.18	79.00
Part2: Field survey - identify surface features - Ties	30 ^c		
Total	43		

- a. Part3: Field survey - identify surface features < Part2: Field survey - identify surface features
- b. Part3: Field survey - identify surface features > Part2: Field survey - identify surface features
- c. Part3: Field survey - identify surface features = Part2: Field survey - identify surface features

Test Statistics^b

	Part3: Field survey - identify surface features - Part2: Field survey - identify surface features
Z	-2.517 ^a
Asymp. Sig. (2-tailed)	.012

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

8.6 Open and close finds bags

Part 2: Open and close finds bags	Part 3: Open and close finds bags			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	47	1		21
Able with minor adjustments	2			2
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Open and close finds bags - Part2: Open and close finds bags	Negative Ranks	2 ^a	2.00	4.00
	Positive Ranks	1 ^b	2.00	2.00
	Ties	47 ^c		
	Total	50		

a. Part3: Open and close finds bags < Part2: Open and close finds bags

b. Part3: Open and close finds bags > Part2: Open and close finds bags

c. Part3: Open and close finds bags = Part2: Open and close finds bags

Test Statistics^b

	Part3: Open and close finds bags - Part2: Open and close finds bags
Z	-.577 ^a
Asymp. Sig. (2-tailed)	.564

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

8.7 Write labels

Part 2: Write labels	Part 3: Write labels			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	41	3		20
Able with minor adjustments	4			5
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Write labels - Negative Ranks	4 ^a	4.00	16.00
Part2: Write labels Positive Ranks	3 ^b	4.00	12.00
Ties	41 ^c		
Total	48		

- a. Part3: Write labels < Part2: Write labels
- b. Part3: Write labels > Part2: Write labels
- c. Part3: Write labels = Part2: Write labels

Test Statistics^b

	Part3: Write labels - Part2: Write labels
Z	-.378 ^a
Asymp. Sig. (2-tailed)	.705

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

9. GEOPHYSICAL SURVEY

9.1 Gradiometry – use an instrument

Part 2: Gradiometry – use an instrument	Part 3: Gradiometry – use an instrument			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	33	14	4	19
Able with minor adjustments		1		2
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Gradiometry - use an instrument - Negative Ranks	0 ^a	.00	.00
Part3: Gradiometry - use an instrument - Positive Ranks	18 ^b	9.50	171.00
Part2: Gradiometry - use an instrument - Ties	34 ^c		
Total	52		

- a. Part3: Gradiometry - use an instrument < Part2: Gradiometry - use an instrument
- b. Part3: Gradiometry - use an instrument > Part2: Gradiometry - use an instrument
- c. Part3: Gradiometry - use an instrument = Part2: Gradiometry - use an instrument

Test Statistics^b

	Part3: Gradiometry - use an instrument - Part2: Gradiometry - use an instrument
Z	-3.947 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

9.2 Gradiometry – identify walking line

Part 2: Gradiometry – identify walking line	Part 3: Gradiometry – identify walking line			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	42	5	2	18
Able with minor adjustments		4		2
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Gradiometry - identify walking line - Negative Ranks	0 ^a	.00	.00
Part2: Gradiometry - identify walking line - Positive Ranks	7 ^b	4.00	28.00
Ties	46 ^c		
Total	53		

- a. Part3: Gradiometry - identify walking line < Part2: Gradiometry - identify walking line
- b. Part3: Gradiometry - identify walking line > Part2: Gradiometry - identify walking line
- c. Part3: Gradiometry - identify walking line = Part2: Gradiometry - identify walking line

Test Statistics^b

	Part3: Gradiometry - identify walking line - Part2: Gradiometry - identify walking line
Z	-2.460 ^a
Asymp. Sig. (2-tailed)	.014

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

9.3 Gradiometry – audible signals

Part 2: Gradiometry – audible signals	Part 3: Gradiometry – audible signals			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	33	11	4	24
Able with minor adjustments	1			
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Gradiometry - audible signals - Negative Ranks	1 ^a	6.50	6.50
Part2: Gradiometry - audible signals - Positive Ranks	15 ^b	8.63	129.50
Ties	33 ^c		
Total	49		

a. Part3: Gradiometry - audible signals < Part2: Gradiometry - audible signals

b. Part3: Gradiometry - audible signals > Part2: Gradiometry - audible signals

c. Part3: Gradiometry - audible signals = Part2: Gradiometry - audible signals

Test Statistics^b

	Part3: Gradiometry - audible signals - Part2: Gradiometry - audible signals
Z	-3.350 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

9.4 Resistivity– use an instrument

Part 2: Resistivity– use an instrument	Part 3: Resistivity– use an instrument			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	27	7	4	33
Able with minor adjustments				2
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Resistivity - use an instrument - Negative Ranks	0 ^a	.00	.00
Part3: Resistivity - use an instrument - Positive Ranks	11 ^b	6.00	66.00
Part2: Resistivity - use an instrument - Ties	27 ^c		
Total	38		

- a. Part3: Resistivity - use an instrument < Part2: Resistivity - use an instrument
- b. Part3: Resistivity - use an instrument > Part2: Resistivity - use an instrument
- c. Part3: Resistivity - use an instrument = Part2: Resistivity - use an instrument

Test Statistics^b

	Part3: Resistivity - use an instrument - Part2: Resistivity - use an instrument
Z	-3.035 ^a
Asymp. Sig. (2-tailed)	.002

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

9.5 Resistivity – identify walking line

Part 2: Resistivity – identify walking line	Part 3: Resistivity – identify walking line			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	27	7	3	30
Able with minor adjustments	1	1		4
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Resistivity - identify walking line - Negative Ranks	1 ^a	4.50	4.50
Part3: Resistivity - identify walking line - Positive Ranks	10 ^b	6.15	61.50
Part3: Resistivity - identify walking line - Ties	28 ^c		
Part3: Resistivity - identify walking line - Total	39		

- a. Part3: Resistivity - identify walking line < Part2: Resistivity - identify walking line
- b. Part3: Resistivity - identify walking line > Part2: Resistivity - identify walking line
- c. Part3: Resistivity - identify walking line = Part2: Resistivity - identify walking line

Test Statistics^b

	Part3: Resistivity - identify walking line - Part2: Resistivity - identify walking line
Z	-2.652 ^a
Asymp. Sig. (2-tailed)	.008

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

10. CARRYING EQUIPMENT

10.1 Carrying equipment on back

Part 2: Carrying equipment on back	Part 3: Carrying equipment on back			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	54	1		4
Able with minor adjustments	10	2		
Able with substantial adjustments				1
Not applicable				

1 missing participant

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Carry equipment on back - Part2: Carry equipment on back	Negative Ranks	10 ^a	6.00	60.00
	Positive Ranks	1 ^b	6.00	6.00
	Ties	56 ^c		
	Total	67		

a. Part3: Carry equipment on back < Part2: Carry equipment on back

b. Part3: Carry equipment on back > Part2: Carry equipment on back

c. Part3: Carry equipment on back = Part2: Carry equipment on back

Test Statistics^b

	Part3: Carry equipment on back - Part2: Carry equipment on back
Z	-2.714 ^a
Asymp. Sig. (2-tailed)	.007

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

10.2 Carrying equipment in hands

Part 2: Carrying equipment in hands	Part 3: Carrying equipment in hands			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	67	1		1
Able with minor adjustments	2	2		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Carry equipment in hands - Part2: Carry equipment in hands	Negative Ranks	2 ^a	2.00	4.00
	Positive Ranks	1 ^b	2.00	2.00
	Ties	69 ^c		
	Total	72		

- a. Part3: Carry equipment in hands < Part2: Carry equipment in hands
- b. Part3: Carry equipment in hands > Part2: Carry equipment in hands
- c. Part3: Carry equipment in hands = Part2: Carry equipment in hands

Test Statistics^b

	Part3: Carry equipment in hands - Part2: Carry equipment in hands
Z	-.577 ^a
Asymp. Sig. (2-tailed)	.564

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

11. PHYSICAL ABILITY

11.1 Climb in and out of trenches

Part 2: Climb in and out of trenches	Part 3: Climb in and out of trenches			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	65	4	1	
Able with minor adjustments	2			
Able with substantial adjustments				1
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Climb in and out of trenches - Part2: Climb in and out of trenches	Negative Ranks	2 ^a	3.50	7.00
	Positive Ranks	5 ^b	4.20	21.00
	Ties	65 ^c		
	Total	72		

a. Part3: Climb in and out of trenches < Part2: Climb in and out of trenches

b. Part3: Climb in and out of trenches > Part2: Climb in and out of trenches

c. Part3: Climb in and out of trenches = Part2: Climb in and out of trenches

Test Statistics^b

	Part3: Climb in and out of trenches - Part2: Climb in and out of trenches
Z	-1.265 ^a
Asymp. Sig. (2-tailed)	.206

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

11.2 Climb over upstanding features

Part 2: Climb over upstanding features	Part 3: Climb over upstanding features			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	69			2
Able with minor adjustments	1	1		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Climb over upstanding features - Part2: Climb over upstanding features	Negative Ranks	1 ^a	1.00	1.00
	Positive Ranks	0 ^b	.00	.00
	Ties	70 ^c		
	Total	71		

- a. Part3: Climb over upstanding features < Part2: Climb over upstanding features
- b. Part3: Climb over upstanding features > Part2: Climb over upstanding features
- c. Part3: Climb over upstanding features = Part2: Climb over upstanding features

Test Statistics^b

	Part3: Climb over upstanding features - Part2: Climb over upstanding features
Z	-1.000 ^a
Asymp. Sig. (2-tailed)	.317

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

11.3 Strength

Part 2: Strength	Part 3: Strength			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	52	15	1	1
Able with minor adjustments	2	1	1	
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Strength - Negative Ranks	2 ^a	9.50	19.00
Part2: Strength Positive Ranks	17 ^b	10.06	171.00
Ties	53 ^c		
Total	72		

a. Part3: Strength < Part2: Strength

b. Part3: Strength > Part2: Strength

c. Part3: Strength = Part2: Strength

Test Statistics^b

	Part3: Strength - Part2: Strength
Z	-3.411 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

11.4 Physical stamina

Part 2: Physical stamina	Part 3: Physical stamina			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	47	13	1	1
Able with minor adjustments	8	3		
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Physical stamina - Negative Ranks	8 ^a	11.00	88.00
Part2: Physical stamina Positive Ranks	14 ^b	11.79	165.00
Ties	50 ^c		
Total	72		

- a. Part3: Physical stamina < Part2: Physical stamina
- b. Part3: Physical stamina > Part2: Physical stamina
- c. Part3: Physical stamina = Part2: Physical stamina

Test Statistics^b

	Part3: Physical stamina - Part2: Physical stamina
Z	-1.400 ^a
Asymp. Sig. (2-tailed)	.162

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

11.5 Squatting

Part 2: Squatting	Part 3: Squatting		
	Able	Unable	Not Applicable
Able	59	1	5
Unable	7		1
Not Applicable			

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Squatting - Negative Ranks	7 ^a	4.50	31.50
Part2: Squatting Positive Ranks	1 ^b	4.50	4.50
Ties	59 ^c		
Total	67		

- a. Part3: Squatting < Part2: Squatting
- b. Part3: Squatting > Part2: Squatting
- c. Part3: Squatting = Part2: Squatting

Test Statistics^b

	Part3: Squatting - Part2: Squatting
Z	-2.121 ^a
Asymp. Sig. (2-tailed)	.034

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

11.6 Kneeling

Part 2: Kneeling	Part 3: Kneeling		
	Able	Unable	Not Applicable
Able	65		5
Unable	2		1
Not Applicable			

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Kneeling - Negative Ranks	2 ^a	1.50	3.00
Part2: Kneeling Positive Ranks	0 ^b	.00	.00
Ties	65 ^c		
Total	67		

a. Part3: Kneeling < Part2: Kneeling

b. Part3: Kneeling > Part2: Kneeling

c. Part3: Kneeling = Part2: Kneeling

Test Statistics^b

	Part3: Kneeling - Part2: Kneeling
Z	-1.414 ^a
Asymp. Sig. (2-tailed)	.157

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

11.7 Sitting with knees pulled up to chest

Part 2: Sitting with knees pulled up to chest	Part 3: Sitting with knees pulled up to chest		
	Able	Unable	Not Applicable
Able	62		4
Unable	5		2
Not Applicable			

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sitting with knees pulled up to chest -	Negative Ranks	5 ^a	3.00	15.00
	Positive Ranks	0 ^b	.00	.00
Part2: Sitting with knees pulled up to chest	Ties	62 ^c		
	Total	67		

- a. Part3: Sitting with knees pulled up to chest < Part2: Sitting with knees pulled up to chest
- b. Part3: Sitting with knees pulled up to chest > Part2: Sitting with knees pulled up to chest
- c. Part3: Sitting with knees pulled up to chest = Part2: Sitting with knees pulled up to chest

Test Statistics^b

	Part3: Sitting with knees pulled up to chest - Part2: Sitting with knees pulled up to chest
Z	-2.236 ^a
Asymp. Sig. (2-tailed)	.025

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

11.8 Sitting

Part 2: Sitting	Part 3: Sitting		
	Able	Unable	Not Applicable
Able	68		5
Unable			
Not Applicable			

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Sitting - Negative Ranks	0 ^a	.00	.00
Part2: Sitting Positive Ranks	0 ^b	.00	.00
Ties	68 ^c		
Total	68		

a. Part3: Sitting < Part2: Sitting

b. Part3: Sitting > Part2: Sitting

c. Part3: Sitting = Part2: Sitting

Test Statistics^b

	Part3: Sitting - Part2: Sitting
Z	.000 ^a
Asymp. Sig. (2-tailed)	1.000

a. The sum of negative ranks equals the sum of positive ranks.

b. Wilcoxon Signed Ranks Test

11.9 Sitting with legs to one side

Part 2: Sitting with legs to one side	Part 3: Sitting with legs to one side		
	Able	Unable	Not Applicable
Able	67		5
Unable	1		
Not Applicable			

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Sitting with legs to one side - Part2: Sitting with legs to one side	Negative Ranks	1 ^a	1.00	1.00
	Positive Ranks	0 ^b	.00	.00
	Ties	67 ^c		
	Total	68		

a. Part3: Sitting with legs to one side < Part2: Sitting with legs to one side

b. Part3: Sitting with legs to one side > Part2: Sitting with legs to one side

c. Part3: Sitting with legs to one side = Part2: Sitting with legs to one side

Test Statistics^b

	Part3: Sitting with legs to one side - Part2: Sitting with legs to one side
Z	-1.000 ^a
Asymp. Sig. (2-tailed)	.317

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

11.10 Lying down

Part 2: Lying down	Part 3: Lying down		
	Able	Unable	Not Applicable
Able	68		5
Unable			
Not Applicable			

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Lying down - Negative Ranks	0 ^a	.00	.00
Part2: Lying down Positive Ranks	0 ^b	.00	.00
Ties	68 ^c		
Total	68		

- a. Part3: Lying down < Part2: Lying down
- b. Part3: Lying down > Part2: Lying down
- c. Part3: Lying down = Part2: Lying down

Test Statistics^b

	Part3: Lying down - Part2: Lying down
Z	.000 ^a
Asymp. Sig. (2-tailed)	1.000

- a. The sum of negative ranks equals the sum of positive ranks.
- b. Wilcoxon Signed Ranks Test

12. COGNITIVE ABILITY

12.1 Vision – colour

Part 2: Vision – colour	Part 3: Vision – colour			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	61	3		
Able with minor adjustments	6		2	1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Vision - colour - Negative Ranks	6 ^a	6.00	36.00
Part2: Vision - colour Positive Ranks	5 ^b	6.00	30.00
Ties	61 ^c		
Total	72		

a. Part3: Vision - colour < Part2: Vision - colour

b. Part3: Vision - colour > Part2: Vision - colour

c. Part3: Vision - colour = Part2: Vision - colour

Test Statistics^b

	Part3: Vision - colour - Part2: Vision - colour
Z	-.302 ^a
Asymp. Sig. (2-tailed)	.763

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

12.2 Vision – texture

Part 2: Vision – texture	Part 3: Vision – texture			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	65	7		
Able with minor adjustments				1
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Vision - texture - Negative Ranks	0 ^a	.00	.00
Part2: Vision - texture Positive Ranks	7 ^b	4.00	28.00
Ties	65 ^c		
Total	72		

a. Part3: Vision - texture < Part2: Vision - texture

b. Part3: Vision - texture > Part2: Vision - texture

c. Part3: Vision - texture = Part2: Vision - texture

Test Statistics^b

	Part3: Vision - texture - Part2: Vision - texture
Z	-2.646 ^a
Asymp. Sig. (2-tailed)	.008

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

12.3 Vision – physical details

Part 2: Vision – physical details	Part 3: Vision – physical details			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	60	7		
Able with minor adjustments	4	2		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Vision - physical details - Part2: Vision - physical details	Negative Ranks	4 ^a	6.00	24.00
	Positive Ranks	7 ^b	6.00	42.00
	Ties	62 ^c		
	Total	73		

- a. Part3: Vision - physical details < Part2: Vision - physical details
- b. Part3: Vision - physical details > Part2: Vision - physical details
- c. Part3: Vision - physical details = Part2: Vision - physical details

Test Statistics^b

	Part3: Vision - physical details - Part2: Vision - physical details
Z	-.905 ^a
Asymp. Sig. (2-tailed)	.366

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.4 Vision – physical features

Part 2: Vision – physical features	Part 3: Vision – physical features			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	56	5		
Able with minor adjustments	10	2		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Vision - physical features - Part2: Vision - physical features	Negative Ranks	10 ^a	8.00	80.00
	Positive Ranks	5 ^b	8.00	40.00
	Ties	58 ^c		
	Total	73		

- a. Part3: Vision - physical features < Part2: Vision - physical features
- b. Part3: Vision - physical features > Part2: Vision - physical features
- c. Part3: Vision - physical features = Part2: Vision - physical features

Test Statistics^b

	Part3: Vision - physical features - Part2: Vision - physical features
Z	-1.291 ^a
Asymp. Sig. (2-tailed)	.197

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

12.5 Vision – printed details

Part 2: Vision – printed details	Part 3: Vision – printed details			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	68	3		
Able with minor adjustments	1	1		
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Vision - printed details - Part2: Vision - printed details	1 ^a	2.50	2.50
	3 ^b	2.50	7.50
	69 ^c		
Total	73		

- a. Part3: Vision - printed details < Part2: Vision - printed details
- b. Part3: Vision - printed details > Part2: Vision - printed details
- c. Part3: Vision - printed details = Part2: Vision - printed details

Test Statistics^b

	Part3: Vision - printed details - Part2: Vision - printed details
Z	-1.000 ^a
Asymp. Sig. (2-tailed)	.317

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.6 Vision – close and distant

Part 2: Vision – close and distant	Part 3: Vision – close and distant			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	67	4		
Able with minor adjustments	1	1		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Vision - close and distant - Part2: Vision - close and distant	Negative Ranks	1 ^a	3.00	3.00
	Positive Ranks	4 ^b	3.00	12.00
	Ties	68 ^c		
	Total	73		

- a. Part3: Vision - close and distant < Part2: Vision - close and distant
- b. Part3: Vision - close and distant > Part2: Vision - close and distant
- c. Part3: Vision - close and distant = Part2: Vision - close and distant

Test Statistics^b

	Part3: Vision - close and distant - Part2: Vision - close and distant
Z	-1.342 ^a
Asymp. Sig. (2-tailed)	.180

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.7 Hearing

Part 2: Hearing	Part 3: Hearing			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	66	6		
Able with minor adjustments	1			
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Hearing - Negative Ranks	1 ^a	4.00	4.00
Part2: Hearing Positive Ranks	6 ^b	4.00	24.00
Ties	66 ^c		
Total	73		

- a. Part3: Hearing < Part2: Hearing
- b. Part3: Hearing > Part2: Hearing
- c. Part3: Hearing = Part2: Hearing

Test Statistics^b

	Part3: Hearing - Part2: Hearing
Z	-1.890 ^a
Asymp. Sig. (2-tailed)	.059

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.8 Touch

Part 2: Touch	Part 3: Touch			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	68	4		
Able with minor adjustments	1			
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Touch - Negative Ranks	1 ^a	3.00	3.00
Part2: Touch Positive Ranks	4 ^b	3.00	12.00
Ties	68 ^c		
Total	73		

- a. Part3: Touch < Part2: Touch
- b. Part3: Touch > Part2: Touch
- c. Part3: Touch = Part2: Touch

Test Statistics^b

	Part3: Touch - Part2: Touch
Z	-1.342 ^a
Asymp. Sig. (2-tailed)	.180

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.9 Balance

Part 2: Balance	Part 3: Balance			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	62	6		
Able with minor adjustments	3	2		
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Balance - Negative Ranks	3 ^a	5.00	15.00
Part2: Balance Positive Ranks	6 ^b	5.00	30.00
Ties	64 ^c		
Total	73		

a. Part3: Balance < Part2: Balance

b. Part3: Balance > Part2: Balance

c. Part3: Balance = Part2: Balance

Test Statistics^b

	Part3: Balance - Part2: Balance
Z	-1.000 ^a
Asymp. Sig. (2-tailed)	.317

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

12.10 Spatial awareness

Part 2: Spatial awareness	Part 3: Spatial awareness			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	42	3		
Able with minor adjustments	18	4		
Able with substantial adjustments	5	1		
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Spatial awareness - Part2: Spatial awareness	Negative Ranks	24 ^a	14.31	343.50
	Positive Ranks	3 ^b	11.50	34.50
	Ties	46 ^c		
	Total	73		

a. Part3: Spatial awareness < Part2: Spatial awareness

b. Part3: Spatial awareness > Part2: Spatial awareness

c. Part3: Spatial awareness = Part2: Spatial awareness

Test Statistics^b

	Part3: Spatial awareness - Part2: Spatial awareness
Z	-3.978 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

12.11 Hand/eye co-ordination

Part 2: Hand/eye co-ordination	Part 3: Hand/eye co-ordination			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	59	2		
Able with minor adjustments	8	1		
Able with substantial adjustments		3		
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Hand-eye co-ordination - Part2: Hand-eye co-ordination	Negative Ranks	11 ^a	7.00	77.00
	Positive Ranks	2 ^b	7.00	14.00
	Ties	60 ^c		
	Total	73		

a. Part3: Hand-eye co-ordination < Part2: Hand-eye co-ordination

b. Part3: Hand-eye co-ordination > Part2: Hand-eye co-ordination

c. Part3: Hand-eye co-ordination = Part2: Hand-eye co-ordination

Test Statistics^b

	Part3: Hand-eye co-ordination - Part2: Hand-eye co-ordination
Z	-2.496 ^a
Asymp. Sig. (2-tailed)	.013

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

12.12 Comprehension – written material

Part 2: Comprehension – written material	Part 3: Comprehension – written material			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	56	8	1	
Able with minor adjustments	5	3		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Comprehension	Negative Ranks	5 ^a	7.00	35.00
- written material -	Positive Ranks	9 ^b	7.78	70.00
Part2: Comprehension	Ties	59 ^c		
- written material	Total	73		

- a. Part3: Comprehension - written material < Part2: Comprehension - written material
- b. Part3: Comprehension - written material > Part2: Comprehension - written material
- c. Part3: Comprehension - written material = Part2: Comprehension - written material

Test Statistics^b

	Part3: Comprehen sion - written material - Part2: Comprehen sion - written material
Z	-1.213 ^a
Asymp. Sig. (2-tailed)	.225

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.13 Comprehension – drawings

Part 2: Comprehension – drawings	Part 3: Comprehension – drawings			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	58	8	1	
Able with minor adjustments	1	2	1	
Able with substantial adjustments		2		
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Comprehension - drawings - Part2: Comprehension - drawings	Negative Ranks	3 ^a	6.50	19.50
	Positive Ranks	10 ^b	7.15	71.50
	Ties	60 ^c		
	Total	73		

- a. Part3: Comprehension - drawings < Part2: Comprehension - drawings
- b. Part3: Comprehension - drawings > Part2: Comprehension - drawings
- c. Part3: Comprehension - drawings = Part2: Comprehension - drawings

Test Statistics^b

	Part3: Comprehension - drawings - Part2: Comprehension - drawings
Z	-2.000 ^a
Asymp. Sig. (2-tailed)	.046

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

12.14 Comprehension – verbal information

Part 2: Comprehension – verbal information	Part 3: Comprehension – verbal information			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	50	7	1	
Able with minor adjustments	12	3		
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Comprehension - verbal information - Part2: Comprehension - verbal information	Negative Ranks	12 ^a	10.00	120.00
	Positive Ranks	8 ^b	11.25	90.00
Ties		53 ^c		
Total		73		

- Part3: Comprehension - verbal information < Part2: Comprehension - verbal information
- Part3: Comprehension - verbal information > Part2: Comprehension - verbal information
- Part3: Comprehension - verbal information = Part2: Comprehension - verbal information

Test Statistics^b

	Part3: Comprehen sion - verbal information - Part2: Comprehen sion - verbal information
Z	-.626 ^a
Asymp. Sig. (2-tailed)	.532

- Based on positive ranks.
- Wilcoxon Signed Ranks Test

12.15 Organisation/categorisation

Part 2: Organisation/ categorisation	Part 3: Organisation/categorisation			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	56	16	1	
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3:	Negative Ranks	0 ^a	.00	.00
Organisation/cate gorisation - Part2:	Positive Ranks	17 ^b	9.00	153.00
Organisation/cate gorisation	Ties	56 ^c		
	Total	73		

a. Part3: Organisation/categorisation < Part2: Organisation/categorisation

b. Part3: Organisation/categorisation > Part2: Organisation/categorisation

c. Part3: Organisation/categorisation = Part2: Organisation/categorisation

Test Statistics^b

	Part3: Organisation/ categorisation - Part2: Organisation/ categorisation
Z	-4.025 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

12.16 Short-term memory

Part 2: Short-term memory	Part 3: Short-term memory			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	34	8		
Able with minor adjustments	20	8		
Able with substantial adjustments	1	2		
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Short-term memory - Part2: Short-term memory	Negative Ranks	23 ^a	16.17	372.00
	Positive Ranks	8 ^b	15.50	124.00
	Ties	42 ^c		
	Total	73		

- a. Part3: Short-term memory < Part2: Short-term memory
- b. Part3: Short-term memory > Part2: Short-term memory
- c. Part3: Short-term memory = Part2: Short-term memory

Test Statistics^b

	Part3: Short-term memory - Part2: Short-term memory
Z	-2.744 ^a
Asymp. Sig. (2-tailed)	.006

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

12.17 Long-term memory

Part 2: Long-term memory	Part 3: Long-term memory			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	21	2		
Able with minor adjustments	28	8		
Able with substantial adjustments	9	5		
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Long-term memory - Part2: Long-term memory	Negative Ranks	42 ^a	22.71	954.00
	Positive Ranks	2 ^b	18.00	36.00
	Ties	29 ^c		
	Total	73		

- a. Part3: Long-term memory < Part2: Long-term memory
- b. Part3: Long-term memory > Part2: Long-term memory
- c. Part3: Long-term memory = Part2: Long-term memory

Test Statistics^b

	Part3: Long-term memory - Part2: Long-term memory
Z	-5.722 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

12.18 Recognition

Part 2: Recognition	Part 3: Recognition			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	50	7		
Able with minor adjustments	9	4	1	
Able with substantial adjustments	2			
Not applicable				

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Recognition -	Negative Ranks	11 ^a	10.73	118.00
Part2: Recognition	Positive Ranks	8 ^b	9.00	72.00
	Ties	54 ^c		
	Total	73		

a. Part3: Recognition < Part2: Recognition

b. Part3: Recognition > Part2: Recognition

c. Part3: Recognition = Part2: Recognition

Test Statistics^b

	Part3: Recognition - Part2: Recognition
Z	-1.013 ^a
Asymp. Sig. (2-tailed)	.311

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

12.19 Mental stamina

Part 2: Mental stamina	Part 3: Mental stamina			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	54	8		1
Able with minor adjustments	8	1	1	
Able with substantial adjustments				
Not applicable				

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Mental stamina - Negative Ranks	8 ^a	9.00	72.00
Part2: Mental stamina Positive Ranks	9 ^b	9.00	81.00
Ties	55 ^c		
Total	72		

- a. Part3: Mental stamina < Part2: Mental stamina
- b. Part3: Mental stamina > Part2: Mental stamina
- c. Part3: Mental stamina = Part2: Mental stamina

Test Statistics^b

	Part3: Mental stamina - Part2: Mental stamina
Z	-.243 ^a
Asymp. Sig. (2-tailed)	.808

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

13. TRANSFERABLE SKILLS

13.1 Communication – conveying information

Part 2: Communication – conveying information	Part 3: Communication – conveying information			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	42	3		
Able with minor adjustments	17	8		
Able with substantial adjustments		1		
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Communication - conveying information - Negative Ranks	18 ^a	11.00	198.00
Part3: Communication - conveying information - Positive Ranks	3 ^b	11.00	33.00
Part2: Communication - conveying information - Ties	50 ^c		
Total	71		

a. Part3: Communication - conveying information < Part2: Communication - conveying information

b. Part3: Communication - conveying information > Part2: Communication - conveying information

c. Part3: Communication - conveying information = Part2: Communication - conveying information

Test Statistics^b

	Part3: Communication - conveying information - Part2: Communication - conveying information
Z	-3.273 ^a
Asymp. Sig. (2-tailed)	.001

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

13.2 Communication – understanding information

Part 2: Communication – understanding information	Part 3: Communication – understanding information			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	49	7		
Able with minor adjustments	6	8	1	
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Communication - understanding information - Part2: Communication - understanding information	6 ^a	7.50	45.00
Part3: Communication - understanding information - Part2: Communication - understanding information	8 ^b	7.50	60.00
Part3: Communication - understanding information - Part2: Communication - understanding information	57 ^c		
Part3: Communication - understanding information - Part2: Communication - understanding information	71		

- a. Part3: Communication - understanding information < Part2: Communication - understanding information
- b. Part3: Communication - understanding information > Part2: Communication - understanding information
- c. Part3: Communication - understanding information = Part2: Communication - understanding information

Test Statistics^b

	Part3: Communication - understanding information - Part2: Communication - understanding information
Z	-.535 ^a
Asymp. Sig. (2-tailed)	.593

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

13.3 Communication – at a distance

Part 2: Communication – at a distance	Part 3: Communication – at a distance			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	50	19	1	1
Able with minor adjustments				
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Communication - at a distance - Part2: Communication - at a distance	0 ^a	.00	.00
Negative Ranks			
Positive Ranks	20 ^b	10.50	210.00
Ties	50 ^c		
Total	70		

a. Part3: Communication - at a distance < Part2: Communication - at a distance

b. Part3: Communication - at a distance > Part2: Communication - at a distance

c. Part3: Communication - at a distance = Part2: Communication - at a distance

Test Statistics^b

	Part3: Communi cation - at a distance - Part2: Communi cation - at a distance
Z	-4.379 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

13.4 Independent working

Part 2: Independent working	Part 3: Independent working			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	55	5		
Able with minor adjustments	10	1		
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Independent working - Part2: Independent working	Negative Ranks	10 ^a	8.00	80.00
	Positive Ranks	5 ^b	8.00	40.00
	Ties	56 ^c		
	Total	71		

a. Part3: Independent working < Part2: Independent working

b. Part3: Independent working > Part2: Independent working

c. Part3: Independent working = Part2: Independent working

Test Statistics^b

	Part3: Independent working - Part2: Independent working
Z	-1.291 ^a
Asymp. Sig. (2-tailed)	.197

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

13.5 Team working

Part 2: Team working	Part 3: Team working			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	63	2		
Able with minor adjustments	3	1		
Able with substantial adjustments		2		
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Team working - Negative Ranks	5 ^a	4.00	20.00
Part2: Team working Positive Ranks	2 ^b	4.00	8.00
Ties	64 ^c		
Total	71		

- a. Part3: Team working < Part2: Team working
- b. Part3: Team working > Part2: Team working
- c. Part3: Team working = Part2: Team working

Test Statistics^b

	Part3: Team working - Part2: Team working
Z	-1.134 ^a
Asymp. Sig. (2-tailed)	.257

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

13.6 Time management

Part 2: Time management	Part 3: Time management			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	53	7		
Able with minor adjustments	5	4	1	
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Time management - Part2: Time management	Negative Ranks	6 ^a	7.50	45.00
	Positive Ranks	8 ^b	7.50	60.00
	Ties	57 ^c		
	Total	71		

a. Part3: Time management < Part2: Time management

b. Part3: Time management > Part2: Time management

c. Part3: Time management = Part2: Time management

Test Statistics^b

	Part3: Time management - Part2: Time management
Z	-.535 ^a
Asymp. Sig. (2-tailed)	.593

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

13.7 Adapting to a new environment

Part 2: Adapting to a new environment	Part 3: Adapting to a new environment			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	55	3		
Able with minor adjustments	9	4		
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Adapting to a new environment - Negative Ranks	9 ^a	6.50	58.50
Part2: Adapting to a new environment - Positive Ranks	3 ^b	6.50	19.50
Ties	59 ^c		
Total	71		

- a. Part3: Adapting to a new environment < Part2: Adapting to a new environment
- b. Part3: Adapting to a new environment > Part2: Adapting to a new environment
- c. Part3: Adapting to a new environment = Part2: Adapting to a new environment

Test Statistics^b

	Part3: Adapting to a new environment - Part2: Adapting to a new environment
Z	-1.732 ^a
Asymp. Sig. (2-tailed)	.083

- a. Based on positive ranks.
- b. Wilcoxon Signed Ranks Test

13.8 Analysing qualitative data

Part 2: Analysing qualitative data	Part 3: Analysing qualitative data			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	41	14	1	2
Able with minor adjustments	7	4	1	1
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Analysing qualitative data - Part2: Analysing qualitative data	Negative Ranks	7 ^a	11.50	80.50
	Positive Ranks	16 ^b	12.22	195.50
	Ties	45 ^c		
	Total	68		

a. Part3: Analysing qualitative data < Part2: Analysing qualitative data

b. Part3: Analysing qualitative data > Part2: Analysing qualitative data

c. Part3: Analysing qualitative data = Part2: Analysing qualitative data

Test Statistics^b

	Part3: Analysing qualitative data - Part2: Analysing qualitative data
Z	-1.961 ^a
Asymp. Sig. (2-tailed)	.050

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

13.9 Analysing quantitative data

Part 2: Analysing quantitative data	Part 3: Analysing quantitative data			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	34	10		1
Able with minor adjustments	12	9	2	1
Able with substantial adjustments	1			1
Not applicable				

2 missing participants

Ranks

		N	Mean Rank	Sum of Ranks
Part3: Analysing quantitative data - Part2: Analysing quantitative data	Negative Ranks	13 ^a	13.46	175.00
	Positive Ranks	12 ^b	12.50	150.00
Ties		43 ^c		
Total		68		

a. Part3: Analysing quantitative data < Part2: Analysing quantitative data

b. Part3: Analysing quantitative data > Part2: Analysing quantitative data

c. Part3: Analysing quantitative data = Part2: Analysing quantitative data

Test Statistics^b

	Part3: Analysing quantitative data - Part2: Analysing quantitative data
Z	-.378 ^a
Asymp. Sig. (2-tailed)	.705

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

13.10 Problem solving

Part 2: Problem solving	Part 3: Problem solving			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	50	13		
Able with minor adjustments	5	3		
Able with substantial adjustments				
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Problem solving - Negative Ranks	5 ^a	9.50	47.50
Part2: Problem solving Positive Ranks	13 ^b	9.50	123.50
Ties	53 ^c		
Total	71		

a. Part3: Problem solving < Part2: Problem solving

b. Part3: Problem solving > Part2: Problem solving

c. Part3: Problem solving = Part2: Problem solving

Test Statistics^b

	Part3: Problem solving - Part2: Problem solving
Z	-1.886 ^a
Asymp. Sig. (2-tailed)	.059

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

13.11 Decision making

Part 2: Decision making	Part 3: Decision making			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	31	7		
Able with minor adjustments	15	14	1	
Able with substantial adjustments	2	1		
Not applicable				

2 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Decision making - Negative Ranks	18 ^a	13.94	251.00
Part2: Decision making Positive Ranks	8 ^b	12.50	100.00
Ties	45 ^c		
Total	71		

a. Part3: Decision making < Part2: Decision making

b. Part3: Decision making > Part2: Decision making

c. Part3: Decision making = Part2: Decision making

Test Statistics^b

	Part3: Decision making - Part2: Decision making
Z	-2.125 ^a
Asymp. Sig. (2-tailed)	.034

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

13.12 Social skills

Part 2: Social skills	Part 3: Social skills			
	Able with no adjustments	Able with minor adjustments	Able with substantial adjustments	Not applicable
Able with no adjustments	51	1		
Able with minor adjustments	7	8		
Able with substantial adjustments	2	1		
Not applicable				

3 missing participants

Ranks

	N	Mean Rank	Sum of Ranks
Part3: Social skills - Negative Ranks	10 ^a	6.10	61.00
Part2: Social skills Positive Ranks	1 ^b	5.00	5.00
Ties	59 ^c		
Total	70		

a. Part3: Social skills < Part2: Social skills

b. Part3: Social skills > Part2: Social skills

c. Part3: Social skills = Part2: Social skills

Test Statistics^b

	Part3: Social skills - Part2: Social skills
Z	-2.653 ^a
Asymp. Sig. (2-tailed)	.008

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

APPENDIX III:

RESULTS OF THE ANALYSIS OF THE PART 4 DOCUMENT

Category	Tasks	Student Numbers who performed task	Student Numbers who did not perform task	Student Minimum Score	Student Maximum Score	Student Average Score
Site records	Comprehending site records	63	10	4	7	4.90
	Completing site records-descriptions	61	12	3	7	4.85
	Completing site records-numerical data	61	12	3	7	4.87
	Read and understand maps & plans accurately	69	4	4	7	5.22
	Understanding of what is involved in putting together site records	65	8	3	7	4.82
Excavation	Cutting turf	43	30	4	7	5.51
	Lifting turf	44	29	4	7	5.52
	Excavation – large tools (pick, mattock, draw hoe)	72	1	2	7	5.43
	Excavation – small tools (trowelling)	73	0	2	7	5.64
	Discerning stratigraphy	72	1	2	7	5.21
	Using a sprayer	36	37	2	7	5.53
	Dry sieving	54	19	2	7	5.59
	Disposal of spoil	72	1	2	7	5.94
	Understanding of what is involved in the process of excavation	72	1	2	7	5.69
Planning	Drawing an archaeological plan	57	16	2	7	4.82
	Section drawing	54	19	3	7	5.11
	Taking off-sets	44	29	2	7	4.89
	Understanding of what is involved in the process of planning	63	10	2	7	5.10

Category	Tasks	Student Numbers who performed task	Student Numbers who did not perform task	Student Minimum Score	Student Maximum Score	Student Average Score
Artefacts	Washing artefacts	40	33	3	7	5.53
	Sorting artefacts	47	26	2	7	5.43
	Identifying artefacts	62	11	2	7	5.21
	Understanding of what is involved in the processing of artefacts	56	17	2	7	5.38
Sampling	Flotation and wet sieving	42	31	3	7	5.67
	Sorting material	44	29	4	7	5.55
	Understanding of what is involved in the process of environmental sampling	49	24	1	7	5.29
Surveying	Using tape measures	70	3	4	7	5.81
	Using ranging poles	56	17	4	7	5.54
	Accurate recording of measurements	66	7	4	7	5.61
	Understanding of what is involved in the process of surveying	63	10	4	7	5.52
Instrument Survey	Using a level	48	25	2	7	5.40
	Using a total station	34	39	2	7	4.85
	Using a prismatic compass	20	53	2	7	4.55
	Using an optical square	20	53	2	7	4.40
	Accurate recording of measurements	45	28	2	7	5.42
	Understanding of what is involved in the process of instrument survey	53	20	2	7	5.17
Field	Field walking	37	36	3	7	5.38
	Field survey	35	38	3	7	5.20
	Understanding of what is involved in the process of field survey	48	25	2	7	5.04

Category	Tasks	Student Numbers who performed task	Student Numbers who did not perform task	Student Minimum Score	Student Maximum Score	Student Average Score
Geophysics	Using a magnetometer	48	25	2	7	5.13
	Using a resistance meter	28	45	2	7	4.82
	Understanding of what is involved in the process of geophysical survey	61	12	4	7	5.23
Transferable skills	Communication	71	2	2	7	5.66
	Independent working	71	2	2	7	5.80
	Team working	71	2	2	7	5.99
	Time management	71	2	2	7	5.41
	Adapting to a new environment	71	2	3	7	5.76
	Problem solving	70	3	2	7	5.46
	Decision making	70	3	2	7	5.27
	Social skills	71	2	3	7	5.87
	Analysing qualitative data	71	2	3	7	5.24
	Analysing quantitative data	71	2	3	7	5.17
	Analysing digital data	62	11	3	7	4.97
	Physical stamina	70	3	3	7	5.41
	Mental stamina	71	2	2	7	5.61
	An appreciation of site Health and Safety	71	2	2	7	6.04
	Understanding of the importance and applications of transferable skills	71	2	2	7	5.97

