Analysis Report

This report is designed to investigate the patterns of a dataset and is structured as follows.

Contents

Descriptives

The table below shows the Means, minimum values, maximum values, standard deviations, skewness and kurtosis of each variable under study, along with the sample size (N). Skewness and Kurtosis can be used to examine the normality of variables (variables that follow a normal distribution). Both values should remain between -1 and 1 to indicate normality (Hair et al., 2014). As can be seen in the table below, several values surpass these thresholds, which indicates some substantial departs from normality on some variables such as 'WCST_Sum_PerseverativeResponses', 'WCST_sum_perseverativeerror', 'Flexibility' etc.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
BFI_Extraversion	257	4	15	9.763	2.499	-0.098	-0.676
BFI_Agreeableness	257	4	15	11.817	2.254	-0.639	0.470
BFI_Conscientiousness	257	4	15	10.584	2.527	-0.077	-0.804
BFI_NegativeEmotionality	257	3	15	8.759	2.833	-0.128	-0.547
BFI_OpenMindedness	257	4	15	10.833	2.332	-0.387	-0.352
CFI_CareerAdaptability	257	5	15	12.233	1.947	-0.742	1.222
CFI_CareerOptimism	257	4	15	11.210	2.594	-0.454	-0.386
CFI_Knowledge	257	3	14	9.475	2.355	-0.422	-0.273
JSSE_B	257	10	50	34.218	8.056	-0.445	-0.089
JSSE_O	257	10	50	34.879	8.543	-0.479	-0.169
TMT-A:Errors	259	0	7	1.023	1.344	1.619	2.702
TMT-A:Time (s)	259	18.074	141.243	41.922	16.169	1.974	6.493
TMT-B:Errors	259	0	12	1.803	2.081	1.878	4.621
TMT-B:Time (s)	259	17.779	187.164	57.370	26.561	1.955	5.305
TMT_combined_errors	259	0	19	3.212	3.046	1.752	4.623
TMT_combined_trailtime (s)	259	41.104	270.055	111.485	40.095	1.333	2.196
TMT-B - TMT-A	259	-102.926	140.510	15.448	24.140	0.934	6.303
TMT-B/TMT-A	259	0.271	4.135	1.426	0.551	1.615	4.344
TMT-B - TMT-A / TMT-A	259	-0.729	3.135	0.426	0.551	1.615	4.344
WCST_totalcorrect	257	36	107	72.634	11.773	-0.194	0.294
WCST_totalerror	257	5	92	34.949	21.626	0.629	-0.608
WCST_sum_perservativeerror	257	0	51	7.591	4.875	4.050	28.876
WCST_non_perservativeerror	257	0	91	27.358	21.748	0.799	-0.279
WCST_percent_perservativeerror	257	0.000	100.000	31.990	21.735	0.656	-0.318
WCST_Sum_PerseverativeResponses	257	0	68	10.728	6.750	3.508	23.549
WCST_Percent_PerserverativeResponses	257	0.000	53.125	10.278	5.792	2.163	12.626
WCST_completedcategories	257	0	6	4.724	1.796	-1.118	-0.134
WCST_Sum_FailureMaintainSet	257	0	7	1.144	1.337	1.582	3.071
WCST_LearningToLearn	257	-18.462	14.219	0.374	4.681	-0.134	2.359
CLR	257	0.000	17.000	7.568	2.280	0.138	1.720
%CLR	256	0.000	15.584	7.275	2.039	-0.640	1.901
Inference Control	257	-2.990	2.076	0.000	0.893	-0.741	0.722
Problem Solving	256	-9.125	3.318	-0.004	2.709	-1.132	0.429
Flexibility	257	-17.389	3.147	0.000	1.978	-3.879	27.294

The next two tables show descriptive statistics for Study 1 and Study 2.

Descriptive Statistics - Study 1

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
BFI_Extraversion	94	4	15	9.947	2.661	-0.228	-0.704
BFI_Agreeableness	94	4	15	11.713	2.326	-0.722	0.974
BFI_Conscientiousness	94	5	15	10.840	2.693	-0.070	-1.171
BFI_NegativeEmotionality	94	3	15	8.426	3.053	-0.039	-0.573
BFI_OpenMindedness	94	4	15	10.415	2.486	-0.343	-0.564
CFI_CareerAdaptability	94	8	15	12.340	1.852	-0.255	-0.263
CFI_CareerOptimism	94	6	15	11.043	2.552	-0.231	-0.664
CFI_Knowledge	94	3	14	9.649	2.275	-0.500	-0.235
JSSE_B	95	10	50	34.747	7.635	-0.653	0.621
JSSE_O	95	10	50	35.011	8.518	-0.520	-0.136
TMT-A:Errors	97	0	7	1.402	1.566	1.383	1.595
TMT-A:Time (s)	97	18.074	141.243	44.952	17.747	2.375	9.261
TMT-B:Errors	97	0	12	2.216	2.292	1.699	3.880
TMT-B:Time (s)	97	17.779	187.164	57.379	28.997	2.183	6.195
TMT_combined_errors	97	0	19	4.031	3.405	1.603	3.824
TMT_combined_trailtime (s)	97	41.104	255.814	114.476	41.525	1.319	2.098
TMT-B - TMT-A	97	-102.926	140.510	12.426	27.590	0.808	8.196
TMT-B/TMT-A	97	0.271	4.012	1.323	0.526	1.905	7.247
TMT-B - TMT-A / TMT-A	97	-0.729	3.012	0.323	0.526	1.905	7.247
WCST_totalcorrect	94	37	97	72.755	11.297	-0.364	0.519
WCST_totalerror	94	5	91	32.628	21.237	0.845	-0.160
WCST_sum_perseverativeerror	94	0	31	8.340	4.478	1.908	7.124
WCST_non_perservativeerror	94	1	91	24.287	20.825	1.087	0.655
WCST_percent_perservativeerror	94	0.000	88.889	36.109	21.428	0.425	-0.717
WCST_Sum_PerseverativeResponses	94	0	37	11.691	5.922	1.331	3.476
WCST_Percent_PerserverativeResponses	94	0.000	28.906	11.334	5.194	0.574	1.061
WCST_completedcategories	94	0	6	5.011	1.616	-1.516	1.221
WCST_Sum_FailureMaintainSet	94	0	5	0.947	1.158	1.294	1.299
WCST_LearningToLearn	94	-10.000	14.219	-0.123	3.662	1.154	3.678
CLR	94	0.000	12.000	7.436	1.960	-0.406	1.730
%CLR	94	0.000	10.127	7.267	1.887	-1.277	2.088
Inference Control	94	-2.171	1.651	0.158	0.774	-0.576	0.416
Problem Solving	94	-9.125	3.167	0.297	2.598	-1.450	1.773
Flexibility	94	-8.694	3.147	-0.296	1.768	-1.673	5.505

Descriptive Statistics - Study 2

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
BFI_Extraversion	163	4	15	9.656	2.402	-0.029	-0.633
BFI_Agreeableness	163	4	15	11.877	2.216	-0.584	0.150
BFI_Conscientiousness	163	4	15	10.436	2.422	-0.128	-0.548
BFI_NegativeEmotionality	163	3	15	8.951	2.689	-0.142	-0.567
BFI_OpenMindedness	163	5	15	11.074	2.210	-0.355	-0.291
CFI_CareerAdaptability	163	5	15	12.172	2.002	-0.955	1.769
CFI_CareerOptimism	163	4	15	11.307	2.621	-0.584	-0.172
CFI_Knowledge	163	3	14	9.374	2.401	-0.377	-0.270
JSSE_B	162	11	50	33.907	8.300	-0.338	-0.352
JSSE_O	162	10	50	34.802	8.583	-0.460	-0.155
TMT-A:Errors	162	0	6	0.796	1.137	1.614	2.686
TMT-A:Time (s)	162	19.325	94.227	40.108	14.911	1.530	2.419
TMT-B:Errors	162	0	11	1.556	1.908	2.003	5.252
TMT-B:Time (s)	162	21.959	184.855	57.365	25.084	1.744	4.336
TMT_combined_errors	162	0	16	2.722	2.703	1.810	5.116
TMT_combined_trailtime (s)	162	46.073	270.055	109.694	39.234	1.350	2.351
TMT-B - TMT-A	162	-37.640	110.241	17.257	21.705	1.243	2.994

TMT-B/TMT-A	162	0.589	4.135	1.488	0.558	1.525	3.435
TMT-B - TMT-A / TMT-A	162	-0.411	3.135	0.488	0.558	1.525	3.435
WCST_totalcorrect	163	36	107	72.564	12.073	-0.114	0.221
WCST_totalerror	163	6	92	36.288	21.799	0.521	-0.768
WCST_sum_perseverativeerror	163	0	51	7.160	5.053	5.075	38.931
WCST_non_perservativeerror	163	0	87	29.129	22.133	0.660	-0.607
WCST_percent_perservativeerror	163	0.000	100.000	29.614	21.619	0.828	0.092
WCST_Sum_PerseverativeResponses	163	0	68	10.172	7.142	4.343	30.244
WCST_Percent_PerserverativeResponses	163	0.000	53.125	9.669	6.042	2.896	17.768
WCST_completedcategories	163	0	6	4.558	1.876	-0.935	-0.590
WCST_Sum_FailureMaintainSet	163	0	7	1.258	1.421	1.612	3.138
WCST_LearningToLearn	163	-18.462	14.107	0.660	5.167	-0.476	1.972
CLR	163	0.000	17.000	7.644	2.449	0.261	1.493
%CLR	162	1.563	15.584	7.280	2.128	-0.388	1.818
Inference Control	163	-2.990	2.076	-0.091	0.946	-0.716	0.571
Problem Solving	162	-7.991	3.318	-0.179	2.764	-0.984	-0.072
Flexibility	163	-17.389	3.147	0.171	2.075	-4.811	35.689

Similarly to the integrated data, several variables show high values of skewness and kurtosis, indicating lack of normality.

Besides the variables that were measured on continuous scales, some additional variables were categorical. The following tables show the descriptive statistics of these variables. The variables shown below are variables with less than 12 categories.

q1_gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	195	69.1	69.1	69.1
	Male	83	29.4	29.4	98.6
	Other	4	1.4	1.4	100.0
	Total	282	100.0	100.0	

q8_education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed primary school Year 1-6	3	1.1	1.1	1.1
	High School (Year 7-12)	58	20.6	20.6	21.6
	Postgraduate degree	58	20.6	20.6	42.2
	TAFE or equivalent	61	21.6	21.6	63.8
	University - Bachelors degree	102	36.2	36.2	100.0
	Total	282	100.0	100.0	

q9_educationcountry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In another country	22	7.8	7.8	7.8
	In Australia	260	92.2	92.2	100.0
	Total	282	100.0	100.0	

q10_employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Casual work	13	4.6	4.6	4.6
	Currently unemployed but looking for work	18	6.4	6.4	11.0

	Frequency	Percent	Valid Percent	Cumulative Percent
Currently unemployed but not looking for work	4	1.4	1.4	12.4
Full time carer	2	0.7	0.7	13.1
Full time contract work	20	7.1	7.1	20.2
Full time ongoing employment	141	50.0	50.0	70.2
Full time student	20	7.1	7.1	77.3
Part time contract work	18	6.4	6.4	83.7
Part time ongoing employment	40	14.2	14.2	97.9
Part time student	5	1.8	1.8	99.6
Sick or disability	1	0.4	0.4	100.0
Total	282	100.0	100.0	

q12_unemploymentCOVID19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	267	94.7	94.7	94.7
	Yes	15	5.3	5.3	100.0
	Total	282	100.0	100.0	

q13_lossofconsciousness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	236	83.7	83.7	83.7
	Yes	46	16.3	16.3	100.0
	Total	282	100.0	100.0	

q14_mouseuse

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		72	25.5	25.5	25.5
	External Mouse	21	7.4	7.4	33.0
	Trackpad	189	67.0	67.0	100.0
	Total	282	100.0	100.0	

Most of the sample (69.1%) are female, currently employed (94.7%) and educated in Australia (92.2%). The next two tables show frequencies for Study 1 and Study 2, separately.

q1_gender - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	80	70.8	70.8	70.8
	Male	32	28.3	28.3	99.1
	Other	1	0.9	0.9	100.0
	Total	113	100.0	100.0	

q8_education - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed primary school Year 1-6	2	1.8	1.8	1.8
	High School (Year 7-12)	23	20.4	20.4	22.1
	Postgraduate degree	24	21.2	21.2	43.4
	TAFE or equivalent	21	18.6	18.6	61.9
	University - Bachelors degree	43	38.1	38.1	100.0
	Total	113	100.0	100.0	

q9_educationcountry - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In another country	9	8.0	8.0	8.0
	In Australia	104	92.0	92.0	100.0
	Total	113	100.0	100.0	

q10_employment - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Casual work	2	1.8	1.8	1.8
	Currently unemployed but looking for work	7	6.2	6.2	8.0
	Currently unemployed but not looking for work	3	2.7	2.7	10.6
	Full time carer	2	1.8	1.8	12.4
	Full time contract work	2	1.8	1.8	14.2
	Full time ongoing employment	67	59.3	59.3	73.5
	Full time student	8	7.1	7.1	80.5
	Part time contract work	2	1.8	1.8	82.3
	Part time ongoing employment	15	13.3	13.3	95.6
	Part time student	4	3.5	3.5	99.1
	Sick or disability	1	0.9	0.9	100.0
	Total	113	100.0	100.0	

q12_unemploymentCOVID19 - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	108	95.6	95.6	95.6
	Yes	5	4.4	4.4	100.0
	Total	113	100.0	100.0	

q13_lossofconsciousness - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	93	82.3	82.3	82.3
	Yes	20	17.7	17.7	100.0
	Total	113	100.0	100.0	

q14_mouseuse - Study 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		48	42.5	42.5	42.5
	External Mouse	16	14.2	14.2	56.6
	Trackpad	49	43.4	43.4	100.0
	Total	113	100.0	100.0	

q1_gender - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	115	68.0	68.0	68.0
	Male	51	30.2	30.2	98.2
	Other	3	1.8	1.8	100.0
	Total	169	100.0	100.0	

q8_education - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completed primary school Year 1-6	1	0.6	0.6	0.6
	High School (Year 7-12)	35	20.7	20.7	21.3
	Postgraduate degree	34	20.1	20.1	41.4
	TAFE or equivalent	40	23.7	23.7	65.1
	University - Bachelors degree	59	34.9	34.9	100.0
	Total	169	100.0	100.0	

q9_educationcountry - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In another country	13	7.7	7.7	7.7
	In Australia	156	92.3	92.3	100.0
	Total	169	100.0	100.0	

q10_employment - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Casual work	11	6.5	6.5	6.5
	Currently unemployed but looking for work	11	6.5	6.5	13.0
	Currently unemployed but not looking for work	1	0.6	0.6	13.6
	Full time contract work	18	10.7	10.7	24.3

	Frequency	Percent	Valid Percent	Cumulative Percent
Full time ongoing employment	74	43.8	43.8	68.0
Full time student	12	7.1	7.1	75.1
Part time contract work	16	9.5	9.5	84.6
Part time ongoing employment	25	14.8	14.8	99.4
Part time student	1	0.6	0.6	100.0
Total	169	100.0	100.0	

q12_unemploymentCOVID19 - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	159	94.1	94.1	94.1
	Yes	10	5.9	5.9	100.0
	Total	169	100.0	100.0	

q13_lossofconsciousness - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	143	84.6	84.6	84.6
	Yes	26	15.4	15.4	100.0
	Total	169	100.0	100.0	

q14_mouseuse - Study 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		24	14.2	14.2	14.2
	External Mouse	5	3.0	3.0	17.2
	Trackpad	140	82.8	82.8	100.0
	Total	169	100.0	100.0	

There are no substantial differences on the frequencies observed between study 1 and study 2.

Missing Value analysis

This section aims at analysing the amount of missing data present in the sample. The figure below shows a summary of missing values. 29 participants (10.28%) showed blank responses to at least one variable. All 34 variables had incomplete answers in at least one participant. In terms of all the cells present in the data, 91.4% of them were filled.
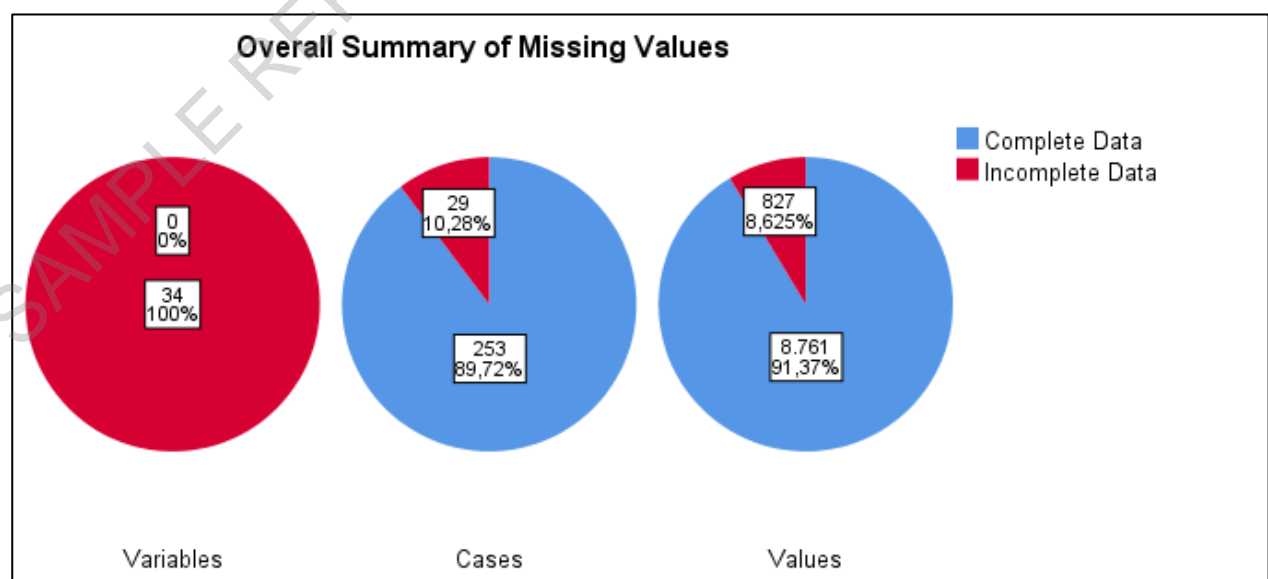
The table below shows the patterns of missing data per variable. Several variables showed 8.9% of missing cases. The pattern of missing cases is not random. It refers to respondents who had a large set of variables as blank values. Therefore, no artificial method was used to impute values. The cases were simply not considered.
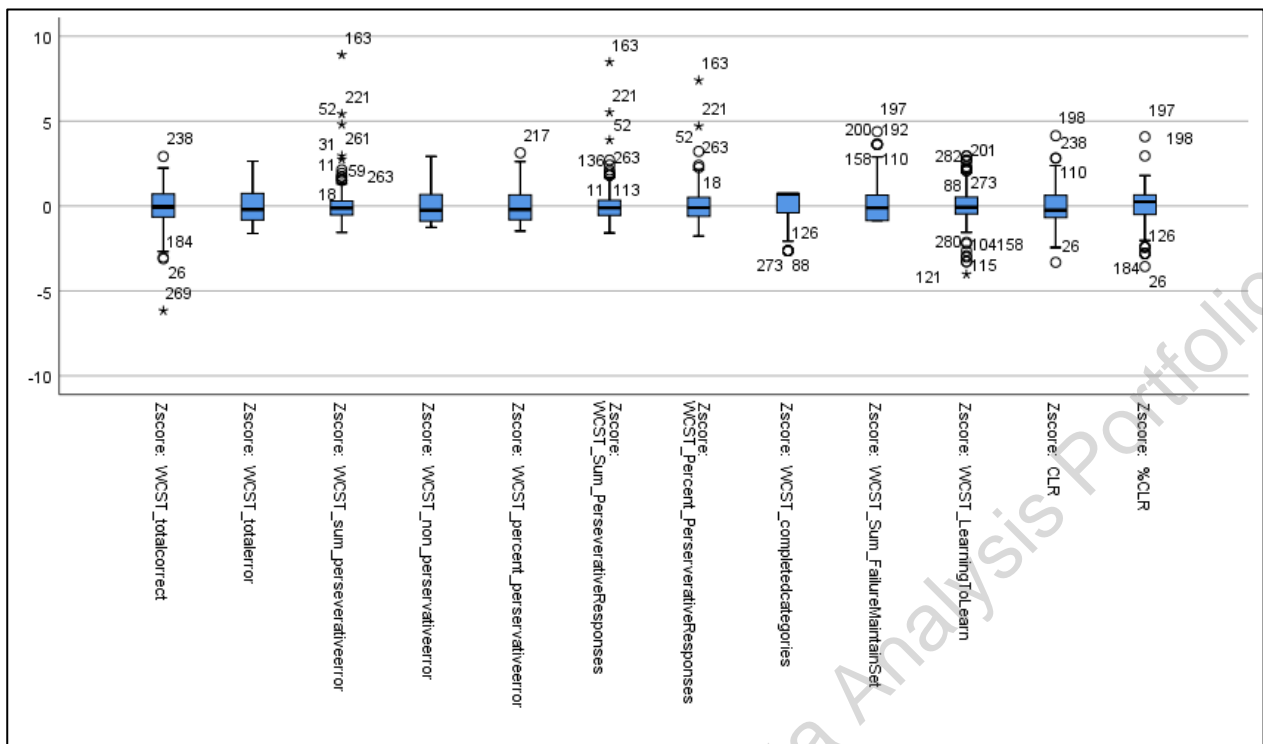
Univariate Statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes[a]	
				Count	Percent	Low	High
BFI_Extraversion	257	9.763	2.499	25	8.9	0	0
BFI_Agreeableness	257	11.817	2.254	25	8.9	3	0
BFI_Conscientiousness	257	10.584	2.527	25	8.9	0	0
BFI_NegativeEmotionality	257	8.759	2.833	25	8.9	0	0
BFI_OpenMindedness	257	10.833	2.332	25	8.9	0	0
CFI_CareerAdaptability	257	12.233	1.947	25	8.9	37	43
CFI_CareerOptimism	257	11.210	2.594	25	8.9	0	0
CFI_Knowledge	257	9.475	2.355	25	8.9	4	0
JSSE_B	257	34.218	8.056	25	8.9	4	0
JSSE_O	257	34.879	8.543	25	8.9	5	0
TMTAErrors	259	1.023	1.344	23	8.2	0	7
TMTATimes	259	41.922	16.169	23	8.2	0	10
TMTBErrors	259	1.803	2.081	23	8.2	0	8
TMTBTimes	259	57.370	26.561	23	8.2	0	18
TMT_combined_errors	259	3.212	3.046	23	8.2	0	16
TMT_combined_trailtimes	259	111.485	40.095	23	8.2	0	9
TMTBTMTA	259	15.448	24.140	23	8.2	4	19
TMTBTMTA_A	259	1.426	0.551	23	8.2	1	21
TMTBTMTATMTA	259	0.426	0.551	23	8.2	1	21
WCST_totalcorrect	257	72.634	11.773	25	8.9	3	1
WCST_totalerror	257	34.949	21.626	25	8.9	0	0
WCST_sum_perseverativeerror	257	7.591	4.875	25	8.9	0	13
WCST_non_perservativeerror	257	27.358	21.748	25	8.9	0	0
WCST_percent_perservativeerror	257	31.990	21.735	25	8.9	0	1
WCST_Sum_PerseverativeResponses	257	10.728	6.750	25	8.9	0	15
WCST_Percent_PerserverativeResponses	257	10.278	5.792	25	8.9	0	6
WCST_completedcategories	257	4.724	1.796	25	8.9	22	0
WCST_Sum_FailureMaintainSet	257	1.144	1.337	25	8.9	0	8
WCST_LearningToLearn	257	0.374	4.681	25	8.9	8	10
CLR	257	7.568	2.280	25	8.9	2	3
CLR_A	256	7.275	2.039	26	9.2	9	2
Interference_Control	257	0.000	0.893	25	8.9	15	1
Problem_Solving	256	-0.004	2.709	26	9.2	5	0
Flexibility	257	0.000	1.978	25	8.9	15	5

a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

The table above also shows number of extreme values in the data per variable. The criteria used by SPSS to count these cases as outliers is falling outside the interval of 1.5 times the interquartile range (above or below). A significant number of outliers was observed on some variables, following this criteria. Many other criteria might be used to detect outliers, a second option is shown in the next

section. Outliers will not be excluded since the cases were assumed to have been genuinely collected and represent real cases. Thus, their exclusion would distort results.

Outlier analysis

Z-scores are an acceptable form of detecting univariate outliers. Z-scores are a standardization method that transforms the data into units of standard deviation. The two figures below show boxplots of the standardized variables. The y-axis can be interpreted as standard deviations. A good rule of thumb is to consider cases higher than 3 or lower than -3 as outliers. The graphs show several cases (labelled as an ID generated by SPSS) falling outside this range.

Normality

Besides the skewness and kurtosis that were shown earlier in the report, the existence of normality can be evaluated with statistical tests. The following table shows the results of two tests: Kolmogorov-Smirnov and Shapiro Wilk's tests. Non-significance in these tests would mean that normality is present.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BFI_Extraversion	0.099	257	0.000	0.974	257	0.000
BFI_Agreeableness	0.113	257	0.000	0.943	257	0.000
BFI_Conscientiousness	0.108	257	0.000	0.967	257	0.000
BFI_NegativeEmotionality	0.090	257	0.000	0.977	257	0.000
BFI_OpenMindedness	0.108	257	0.000	0.965	257	0.000
CFI_CareerAdaptability	0.211	257	0.000	0.903	257	0.000
CFI_CareerOptimism	0.172	257	0.000	0.940	257	0.000
CFI_Knowledge	0.117	257	0.000	0.963	257	0.000
JSSE_B	0.070	257	0.004	0.981	257	0.002
JSSE_O	0.086	257	0.000	0.974	257	0.000
TMT-A:Errors	0.256	259	0.000	0.761	259	0.000
TMT-A:Time (s)	0.147	259	0.000	0.848	259	0.000
TMT-B:Errors	0.222	259	0.000	0.793	259	0.000
TMT-B:Time (s)	0.139	259	0.000	0.834	259	0.000
TMT_combined_errors	0.155	259	0.000	0.847	259	0.000
TMT_combined_trailtime (s)	0.105	259	0.000	0.904	259	0.000
TMT-B - TMT-A	0.135	259	0.000	0.879	259	0.000

TMT-B/TMT-A		0.129	259	0.000	0.886	259	0.000
TMT-B - TMT-A / TMT-A		0.129	259	0.000	0.886	259	0.000
WCST_totalcorrect		0.043	257	0,200*	0.993	257	0.282
WCST_totalerror		0.122	257	0.000	0.930	257	0.000
WCST_sum_perseverativeerror		0.188	257	0.000	0.705	257	0.000
WCST_non_perservativeerror		0.119	257	0.000	0.913	257	0.000
WCST_percent_perservativeerror		0.097	257	0.000	0.949	257	0.000
WCST_Sum_PerseverativeResponses		0.162	257	0.000	0.756	257	0.000
WCST_Percent_PerserverativeResponses		0.072	257	0.003	0.873	257	0.000
WCST_completedcategories		0.345	257	0.000	0.727	257	0.000
WCST_Sum_FailureMaintainSet		0.228	257	0.000	0.792	257	0.000
WCST_LearningToLearn		0.106	257	0.000	0.949	257	0.000
CLR		0.145	257	0.000	0.956	257	0.000
%CLR		0.126	256	0.000	0.931	256	0.000
Inference Control		0.125	257	0.000	0.957	257	0.000
Problem Solving		0.162	256	0.000	0.869	256	0.000
Flexibility		0.159	257	0.000	0.725	257	0.000

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

The test has indicated that normality is only present on the 'WCST_totalcorrect' variable ($p > .05$).

Group Comparison

Since the data can be considered non-normal, a non-parametric test was used to compare the results of all variables between study 1 and study 2. The independent-sample Mann Whitney's test was employed and the results are shown below, along with effect sizes. The thresholds to interpret effect sizes are the following:

- 0.100: weak effect;
- 0.300: moderate effect;
- 0.500: strong effect (Cohen, 1988).

	N	Mann-Whitney U	Wilcoxon W	Z	p	Effect Size (r)
Zscore: BFI_Extraversion	257	7083.500	20449.500	-1.013	0.311	0.063
Zscore: BFI_Agreeableness	257	7367.500	11832.500	-0.516	0.606	0.032
Zscore: BFI_Conscientiousness	257	7024.000	20390.000	-1.117	0.264	0.070
Zscore: BFI_NegativeEmotionality	257	6880.000	11345.000	-1.368	0.171	0.085
Zscore: BFI_OpenMindedness	257	6568.000	11033.000	-1.920	0.055	0.120
Zscore: CFI_CareerAdaptability	257	7451.500	20817.500	-0.377	0.706	0.024
Zscore: CFI_CareerOptimism	257	7091.500	11556.500	-1.007	0.314	0.063
Zscore: CFI_Knowledge	257	7160.500	20526.500	-0.880	0.379	0.055

Zscore: JSSE_B	257	7213.000	20416.000	-0.839	0.402	0.052
Zscore: JSSE_O	257	7523.500	20726.500	-0.299	0.765	0.019
Zscore: TMT-A:Errors	259	5955.500	19158.500	-3.493	0.000	0.217
Zscore: TMT-A:Time (s)	259	6135.000	19338.000	-2.951	0.003	0.183
Zscore: TMT-B:Errors	259	6361.500	19564.500	-2.634	0.008	0.164
Zscore: TMT-B:Time (s)	259	7557.500	12310.500	-0.513	0.608	0.032
Zscore: TMT_combined_errors	259	5883.500	19086.500	-3.414	0.001	0.212
Zscore: TMT_combined_trailtime (s)	259	7179.000	20382.000	-1.162	0.245	0.072
Zscore: TMT-B - TMT-A	259	6678.000	11431.000	-2.021	0.043	0.126
Zscore: TMT-B/TMT-A	259	6306.000	11059.000	-2.658	0.008	0.165
Zscore: TMT-B - TMT-A / TMT-A	259	6306.000	11059.000	-2.658	0.008	0.165
Zscore: WCST_totalcorrect	258	7507.500	21037.500	-0.348	0.728	0.022
Zscore: WCST_totalerror	258	6986.000	11451.000	-1.252	0.211	0.078
Zscore: WCST_sum_perseverativeerror	258	5956.500	19486.500	-3.056	0.002	0.190
Zscore: WCST_non_perservativeerror	258	6723.000	11188.000	-1.708	0.088	0.106
Zscore: WCST_percent_perservativeerror	258	6223.500	19753.500	-2.574	0.010	0.160
Zscore: WCST_Sum_PerseverativeResponses	258	6124.000	19654.000	-2.754	0.006	0.171
Zscore: WCST_Percent_PerserverativeResponses	258	5980.000	19510.000	-2.996	0.003	0.187
Zscore: WCST_completedcategories	258	6637.000	20167.000	-2.075	0.038	0.129
Zscore: WCST_Sum_FailureMaintainSet	258	6781.500	11246.500	-1.690	0.091	0.105
Zscore: WCST_LearningToLearn	258	6475.500	10940.500	-2.138	0.033	0.133
Zscore: CLR	256	7306.000	11771.000	-0.547	0.584	0.034
Zscore: %CLR	256	7553.000	20756.000	-0.107	0.915	0.007
Inference Control	257	6500.000	19866.000	-2.023	0.043	0.126
Problem Solving	256	6812.000	20015.000	-1.404	0.160	0.088
Flexibility	257	6024.500	10489.500	-2.852	0.004	0.178

The table above indicates that the scores of several variables are significantly different between studies 1 and 2 (p < .05). The largest effect size was observed for variable 'Zscore: TMT-A:Errors', U = 5955.500, p < .001, r = .217. The effect in this case can be considered moderate. 14 out of 34 variables show significantly different scores between study 1 and 2 (p < .05).

Reliability Analysis

Cronbach's Alpha was calculated for the following scales: BFI, CFI, JSSE, Global WCST, Flexibility, Problem Solving and Interference Control for both studies. Acceptable levels of reliability (α > .700) were achieved by JSSE, Flexibility, Problem Solving and Interference Control. The indicators of BFI showed low correlations, as well as CFI and WCST. The table below shows the coefficients considering each study.

Factor	Study 1 Cronbach's Alpha	Study 2 Cronbach's Alpha
BFI	0.184	0.071
CFI	0.228	0.598
JSSE	0.885	0.841
WCST	0.308	0.400
Flexibility	0.863	0.827
Interference Control	0.968	0.981
Problem Solving	0.784	0.743

Correlation

The correlation matrices are shown in the excel attached to the delivery. It contains Spearman's correlation coefficient (non-parametric), statistical significance (p) and sample size (N). The following thresholds for statistical association can be considered when examining Pearson's coefficients:

- Small (weak) r=.10 to .29
- Medium (moderate) r=.30 to .49
- large (strong) r=.50 to 1.0

References

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