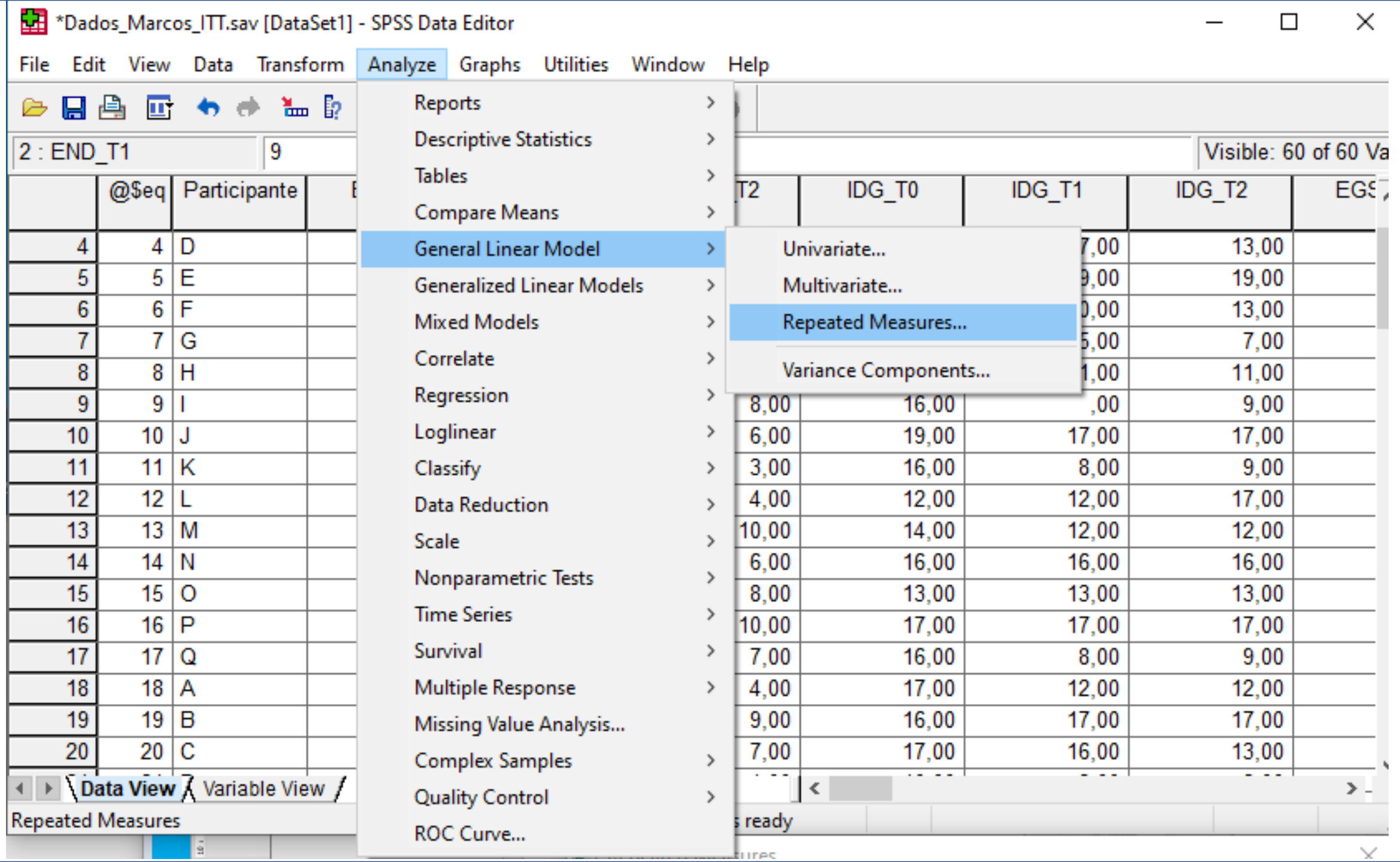
ANOVA FATORIAL MISTA

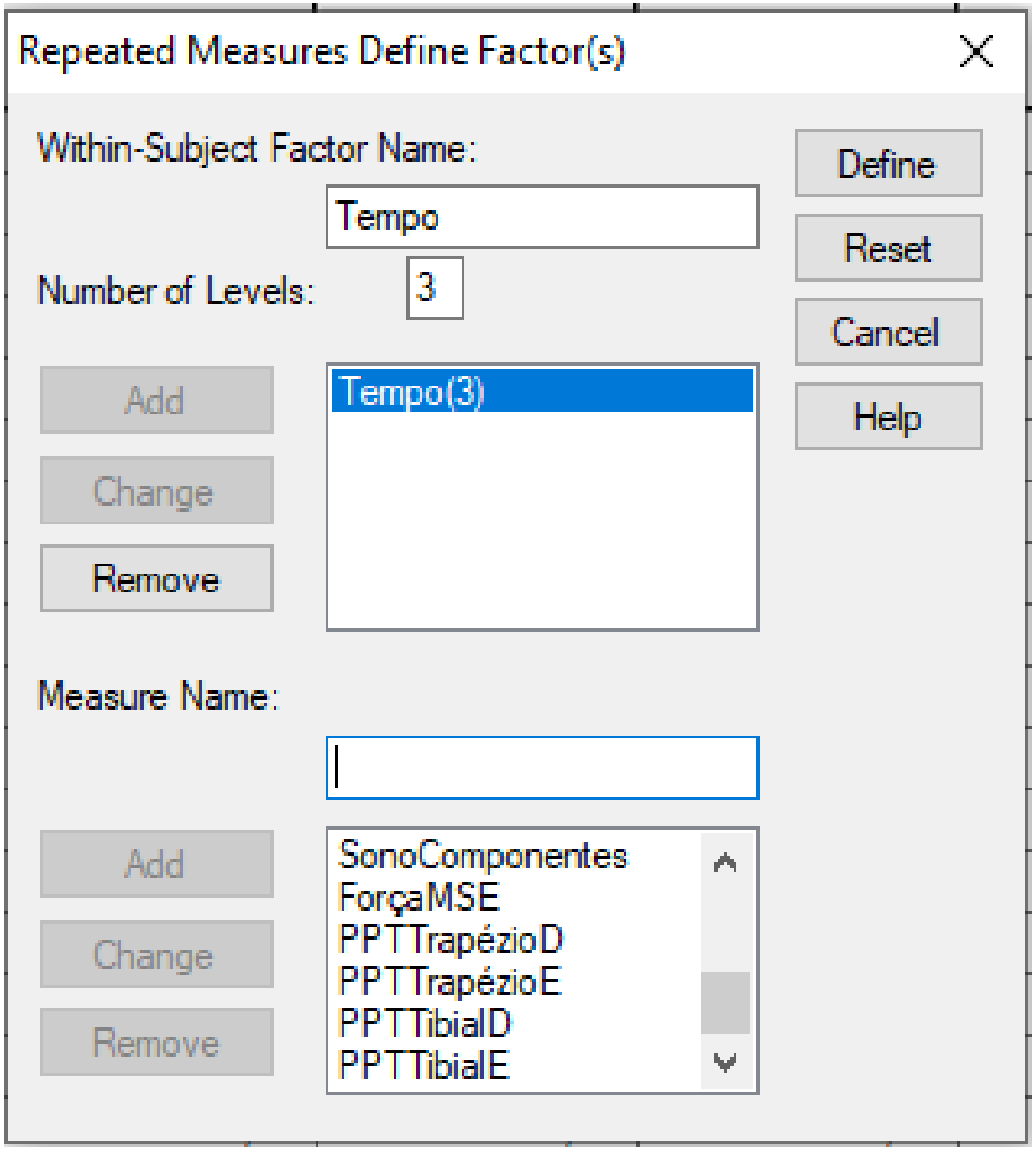
ANOVA com VIs que são tanto variáveis de medidas repetidas (intra-sujeitos) como variáveis entre-sujeitos (inter).

Banco de dados organizado com os fator grupo (VI) e as variáveis dependentes estratificadas pelo tempo em cada coluna. Ex.: Grupo; Sexo; END_T0; END-T1; END_T2; TUG_T0...

Pressupostos para ANOVA:

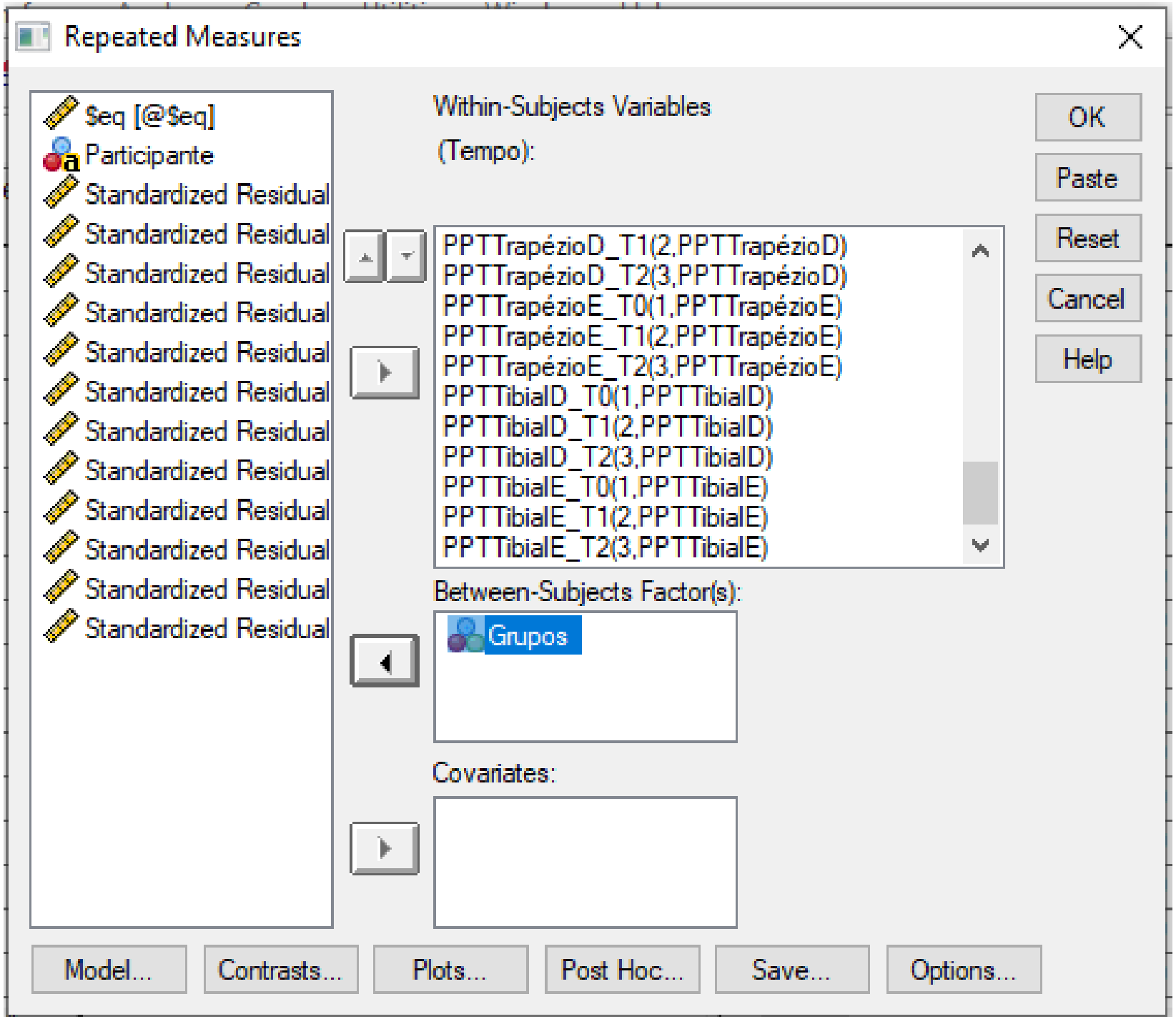
- Amostra > 30 sujeitos;
- Distribuição normal ou Homocedasticidade (variâncias homogêneas entre os grupos observada no teste de Levenes).


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
Reports
Descriptive Statistics
Tables
Compare Means
General Linear Model
Generalized Linear Models
Mixed Models
Correlate
Regression
Loglinear
Classify
Data Reduction
Scale
Nonparametric Tests
Time Series
Survival
Multiple Response
Missing Value Analysis...
Complex Samples
Quality Control
ROC Curve...
Univariate...
Multivariate...
Repeated Measures...
Variance Components...
2 : END_T1
9
Visible: 60 of 60 Va
@$eq
Participante
T2
IDG_T0
IDG_T1
IDG_T2
EGS
4 4 D 7,00 13,00
5 5 E 9,00 19,00
6 6 F 0,00 13,00
7 7 G 5,00 7,00
8 8 H 1,00 11,00
9 9 I 8,00 16,00 ,00 9,00
10 10 J 6,00 19,00 17,00 17,00
11 11 K 3,00 16,00 8,00 9,00
12 12 L 4,00 12,00 12,00 17,00
13 13 M 10,00 14,00 12,00 12,00
14 14 N 6,00 16,00 16,00 16,00
15 15 O 8,00 13,00 13,00 13,00
16 16 P 10,00 17,00 17,00 17,00
17 17 Q 7,00 16,00 8,00 9,00
18 18 A 4,00 17,00 12,00 12,00
19 19 B 9,00 16,00 17,00 17,00
20 20 C 7,00 17,00 16,00 13,00
Data View
Variable View
Repeated Measures
ready



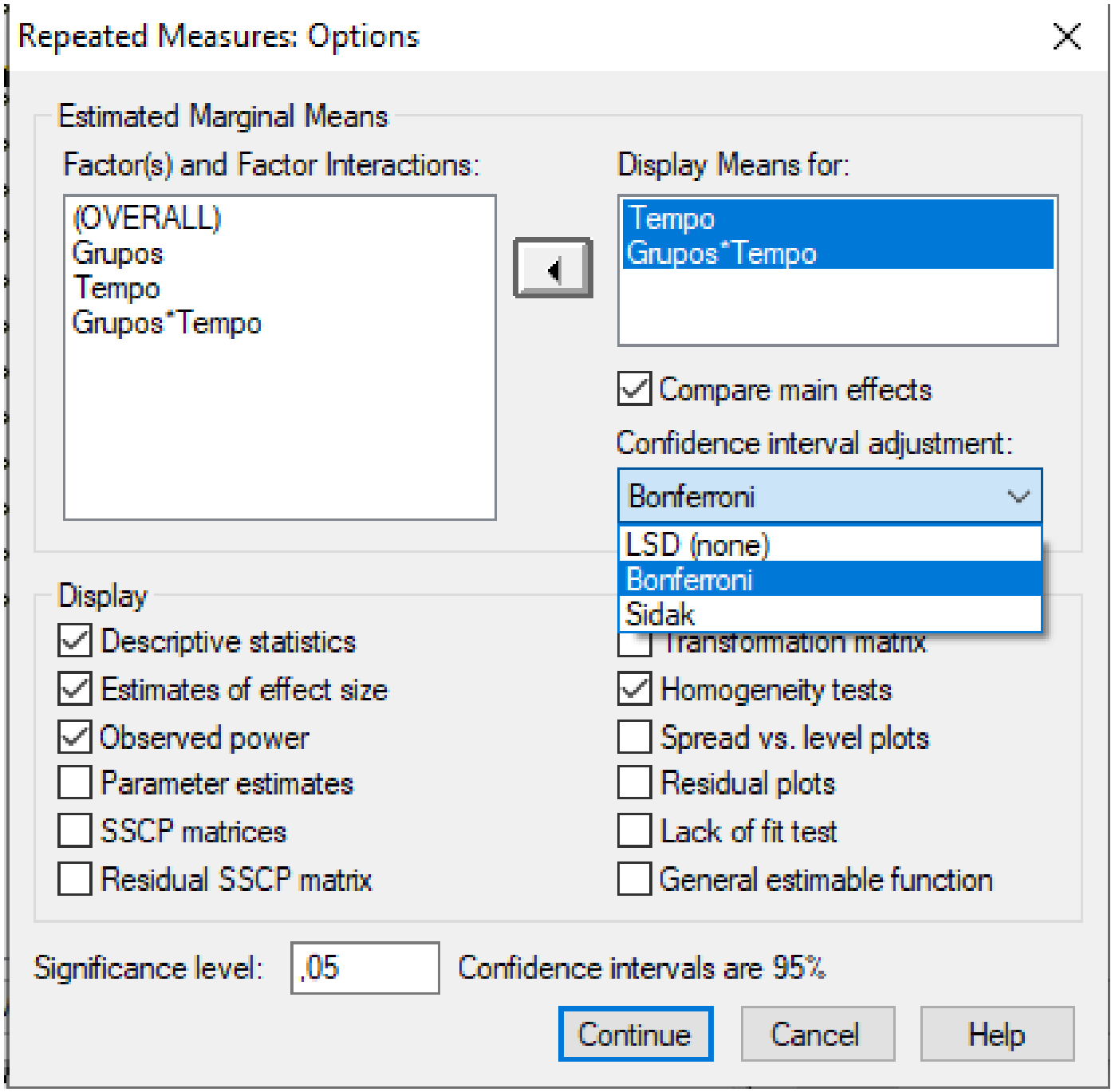
1ª janela

- Preencher o fator intra-sujeitos (Tempo) com a quantidade de níveis (mensurações).
- Preencher o nome da medida (todas as VDs).



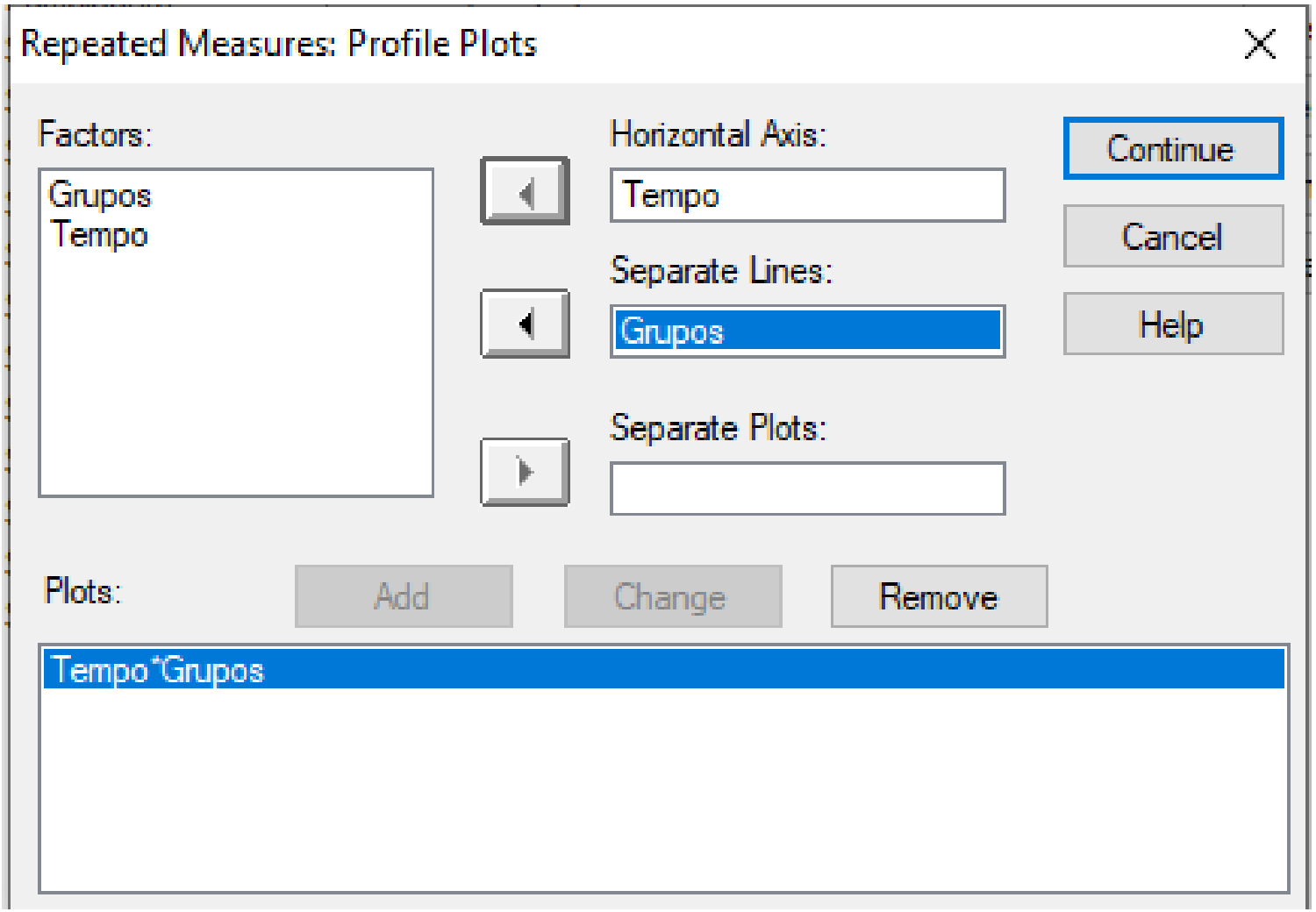
2ª janela

- incluir o fator entre-sujeitos (Grupo).



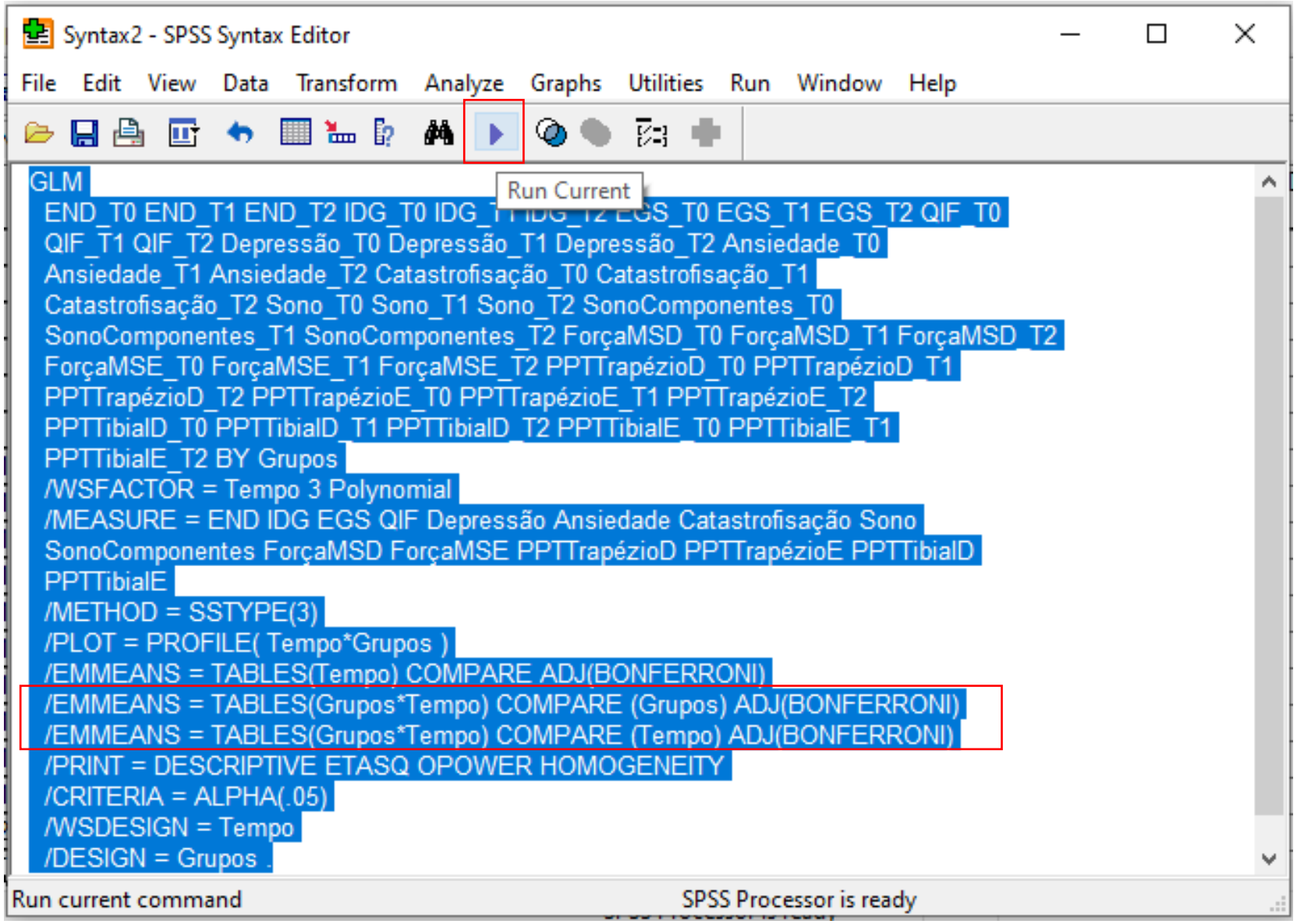
Janela: Options

- Solicitar realização do post-hoc com teste de Bonferroni incluindo o fator tempo e a interação grupo*tempo para exibir médias.



Janela: Plots

- Solicitar gráfico colocando o fator tempo no eixo horizontal e o fator grupo nas linhas separadas.



Janela: Paste

Ajustar a sintaxe para realização do Post Hoc incluindo duas linhas com os comandos relativos os fatores de interesse:

- /EMMEANS=TABLES(Grupo*Tempo) COMPARE (Grupo) ADJ(BONFERRONI)
- /EMMEANS=TABLES(Grupo*Tempo) COMPARE (Tempo) ADJ(BONFERRONI)
- Selecionar tudo e clicar no ícone para rodar.

Levene's Test of Equality of Error Variances(a)

	F	df1	df2	Sig.
END_T0	1,082	2	45	,347
END_T1	1,751	2	45	,185
END_T2	,005	2	45	,995
ForçaMSD_T0	2,310	2	45	,111
ForçaMSD_T1	2,209	2	45	,122
ForçaMSD_T2	1,898	2	45	,162
ForçaMSE_T0	,304	2	45	,739
ForçaMSE_T1	5,226	2	45	,009
ForçaMSE_T2	5,402	2	45	,008
PPTTrapézioD_T0	1,635	2	45	,206
PPTTrapézioD_T1	6,247	2	45	,004
PPTTrapézioD_T2	1,078	2	45	,349

Output

Checar no output, no teste de Levenes,se há Homocedasticidade (variâncias homogêneas entre os grupos).

Teste de Levenes:

H0: p > 0,05 = as variâncias são homogêneas;

H1: p < 0,05 = as variâncias não são homogêneas.

Mauchly's Test of Sphericity(b)

Within Subjects Effect	Measure	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon(a)		
						Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Tempo	END	,870	6,151	2	,046	,885	,959	,500
	IDG	,751	12,589	2	,002	,801	,863	,500
	EGS	,885	5,360	2	,069	,897	,974	,500
	QIF	,954	2,053	2	,358	,956	1,000	,500
	Depressão	,650	18,924	2	,000	,741	,794	,500
	Ansiedade	,929	3,262	2	,196	,933	1,000	,500
	Catastrofisação	,921	3,621	2	,164	,927	1,000	,500
	Sono	,946	2,427	2	,297	,949	1,000	,500
	SonoComponentes	,977	1,013	2	,603	,978	1,000	,500
	ForcaMSD	,980	,885	2	,643	,980	1,000	,500
	ForcaMSE	,821	8,693	2	,013	,848	,917	,500
	PPTTrapézioD	,305	52,268	2	,000	,590	,623	,500
	PPTTrapézioE	,529	28,038	2	,000	,680	,725	,500
	PPTTibialD	,661	18,205	2	,000	,747	,801	,500
	PPTTibialE	,710	15,045	2	,001	,775	,834	,500

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b. Design: Intercept+Grupos
Within Subjects Design: Tempo

Output

Se não existir esfericidade (p<0,05), olhar na tabela Univariate Tests o valor de Sig. (p valor) na linha de Greenhouse-Geisser, para checar se há efeito do tempo sobre a VD.

Univariate Tests

Source	Measure		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Tempo	END	Sphericity Assumed	78,597	2	39,299	10,990	,000	,196	21,980	,990
		Greenhouse-Geisser	78,597	1,769	44,426	10,990	,000	,196	19,443	,982
		Huynh-Feldt	78,597	1,918	40,977	10,990	,000	,196	21,079	,987
		Lower-bound	78,597	1,000	78,597	10,990	,002	,196	10,990	,900
	IDG	Sphericity Assumed	270,167	2	135,083	17,079	,000	,275	34,158	1,000
		Greenhouse-Geisser	270,167	1,602	168,696	17,079	,000	,275	27,352	,998
		Huynh-Feldt	270,167	1,725	156,598	17,079	,000	,275	29,465	,999
		Lower-bound	270,167	1,000	270,167	17,079	,000	,275	17,079	,981
	EGS	Sphericity Assumed	83,431	2	41,715	13,632	,000	,232	27,263	,998
		Greenhouse-Geisser	83,431	1,794	46,500	13,632	,000	,232	24,458	,996
		Huynh-Feldt	83,431	1,947	42,850	13,632	,000	,232	26,541	,997
		Lower-bound	83,431	1,000	83,431	13,632	,001	,232	13,632	,951
	QIF	Sphericity Assumed	3154,470	2	1577,235	12,676	,000	,220	25,353	,996
		Greenhouse-Geisser	3154,470	1,913	1649,130	12,676	,000	,220	24,247	,995
		Huynh-Feldt	3154,470	2,000	1577,235	12,676	,000	,220	25,353	,996
		Lower-bound	3154,470	1,000	3154,470	12,676	,001	,220	12,676	,936

Output

Checar se há efeito (Sig. < 0,05) do tempo sobre as VDs e interação (Tempo * Grupos) sobre as VDs.

Tests of Between-Subjects Effects

Transformed Variable: Average

Source	Measure	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Intercept	END	5088,444	1	5088,444	366,857	,000	,891	366,857	1,000
	IDG	23332,563	1	23332,563	713,665	,000	,941	713,665	1,000
	EGS	11042,507	1	11042,507	705,947	,000	,940	705,947	1,000
	QIF	553345,068	1	553345,068	1211,765	,000	,964	1211,765	1,000
	Depressão	73848,063	1	73848,063	190,468	,000	,809	190,468	1,000
	Ansiedade	78773,778	1	78773,778	167,899	,000	,789	167,899	1,000
	Catastrofisação	1293,085	1	1293,085	420,018	,000	,903	420,018	1,000
	Sono	73260,444	1	73260,444	692,879	,000	,939	692,879	1,000
	SonoComponentes	25921,000	1	25921,000	985,832	,000	,956	985,832	1,000
	ForçaMSD	71614,220	1	71614,220	543,321	,000	,924	543,321	1,000
	ForçaMSE	61918,028	1	61918,028	457,424	,000	,910	457,424	1,000
	PPTTrapézioD	3242,353	1	3242,353	77,798	,000	,634	77,798	1,000
	PPTTrapézioE	3238,558	1	3238,558	38,301	,000	,460	38,301	1,000
	PPTTibialD	11292,604	1	11292,604	28,256	,000	,386	28,256	,999
	PPTTibialE	10487,467	1	10487,467	29,499	,000	,396	29,499	1,000
Grupos	END	16,722	2	8,361	,603	,552	,026	1,206	,144
	IDG	115,875	2	57,938	1,772	,182	,073	3,544	,352
	EGS	50,597	2	25,299	1,617	,210	,067	3,235	,324
	QIF	918,609	2	459,305	1,006	,374	,043	2,012	,214
	Depressão	12,875	2	6,437	,017	,984	,001	,033	,052
	Ansiedade	497,389	2	248,694	,530	,592	,023	1,060	,132
	Catastrofisação	,549	2	,275	,089	,915	,004	,178	,063

Output

Checar se há efeito (Sig. < 0,05) do grupo sobre as VDs.

Pairwise Comparisons

Measure	Tempo	(I) Grupos	(J) Grupos	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
							Lower Bound	Upper Bound
EGS	1	G1	G2	,438	,731	1,000	-1,382	2,257
			G3	,438	,731	1,000	-1,382	2,257
		G2	G1	-,438	,731	1,000	-2,257	1,382
			G3	3,50E-015	,731	1,000	-1,819	1,819
		G3	G1	-,438	,731	1,000	-2,257	1,382
			G2	-3,50E-015	,731	1,000	-1,819	1,819
	2	G1	G2	,125	1,054	1,000	-2,495	2,745
			G3	1,125	1,054	,874	-1,495	3,745
		G2	G1	-,125	1,054	1,000	-2,745	2,495
			G3	1,000	1,054	1,000	-1,620	3,620
		G3	G1	-1,125	1,054	,874	-3,745	1,495
			G2	-1,000	1,054	1,000	-3,620	1,620
	3	G1	G2	1,063	1,037	,933	-1,516	3,641
			G3	2,750(*)	1,037	,033	,172	5,328
		G2	G1	-1,063	1,037	,933	-3,641	1,516
			G3	1,688	1,037	,332	-,891	4,266
		G3	G1	-2,750(*)	1,037	,033	-5,328	-,172
			G2	-1,688	1,037	,332	-4,266	,891
			G3	2,312	1,088	,117	-,393	5,018

Output

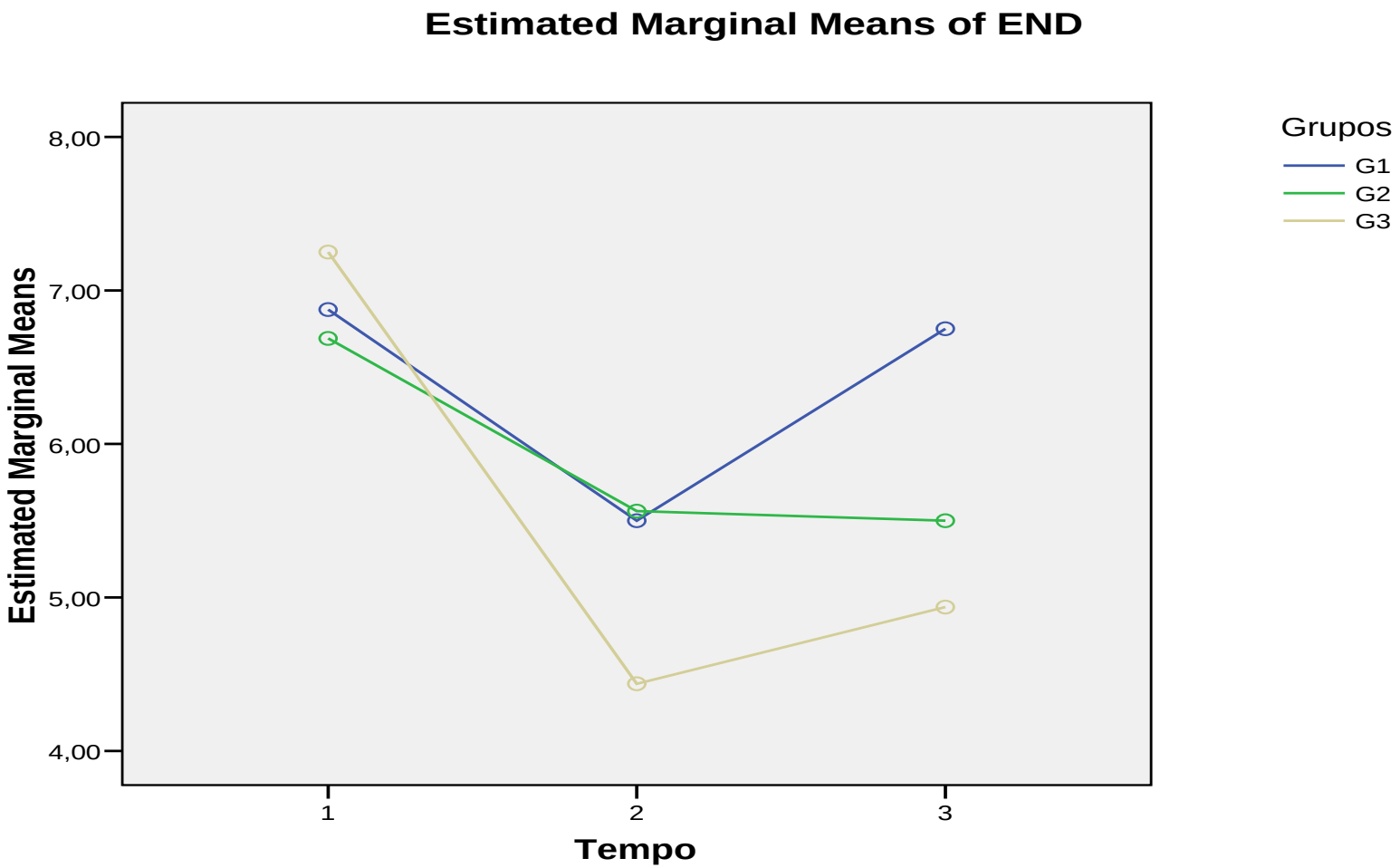
Análise post-hoc de Bonferroni mostrando onde ocorreu o efeito (Sig. < 0,05) do grupo sobre as VDs em cada tempo.

Pairwise Comparisons

Measure	Grupos	(I) Tempo	(J) Tempo	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
							Lower Bound	Upper Bound
END	G1	1	2	1,375	,719	,186	-,412	3,162
			3	,125	,734	1,000	-1,700	1,950
		2	1	-1,375	,719	,186	-3,162	,412
			3	-1,250	,535	,072	-2,580	,080
		3	1	-,125	,734	1,000	-1,950	1,700
			2	1,250	,535	,072	-,080	2,580
	G2	1	2	1,125	,719	,374	-,662	2,912
			3	1,188	,734	,338	-,637	3,012
		2	1	-1,125	,719	,374	-2,912	,662
			3	,063	,535	1,000	-1,267	1,392
		3	1	-1,188	,734	,338	-3,012	,637
			2	-,063	,535	1,000	-1,392	1,267
	G3	1	2	2,813(*)	,719	,001	1,025	4,600
			3	2,313(*)	,734	,009	,488	4,137
		2	1	-2,813(*)	,719	,001	-4,600	-1,025
			3	-,500	,535	1,000	-1,830	,830
		3	1	-2,313(*)	,734	,009	-4,137	-,488
			2	,500	,535	1,000	-,830	1,830
IDG	G1	1	2	3,500(*)	1,118	,009	,719	6,281
			3	2,000	1,104	,230	-,746	4,746
		2	1	-3,500(*)	1,118	,009	-6,281	-,719
			3	-1,500	,704	,116	-3,251	,251
		3	1	-2,000	1,104	,230	-4,746	,746
			2	1,500	,704	,116	-,251	3,251
	G2	1	2	3,250(*)	1,118	,017	,469	6,031
			3	3,000(*)	1,104	,028	,254	5,746
		2	1	-3,250(*)	1,118	,017	-6,031	-,469

Output

Análise post-hoc de Bonferroni mostrando onde ocorreu o efeito (Sig. < 0,05) do tempo sobre as VDs em cada grupo.

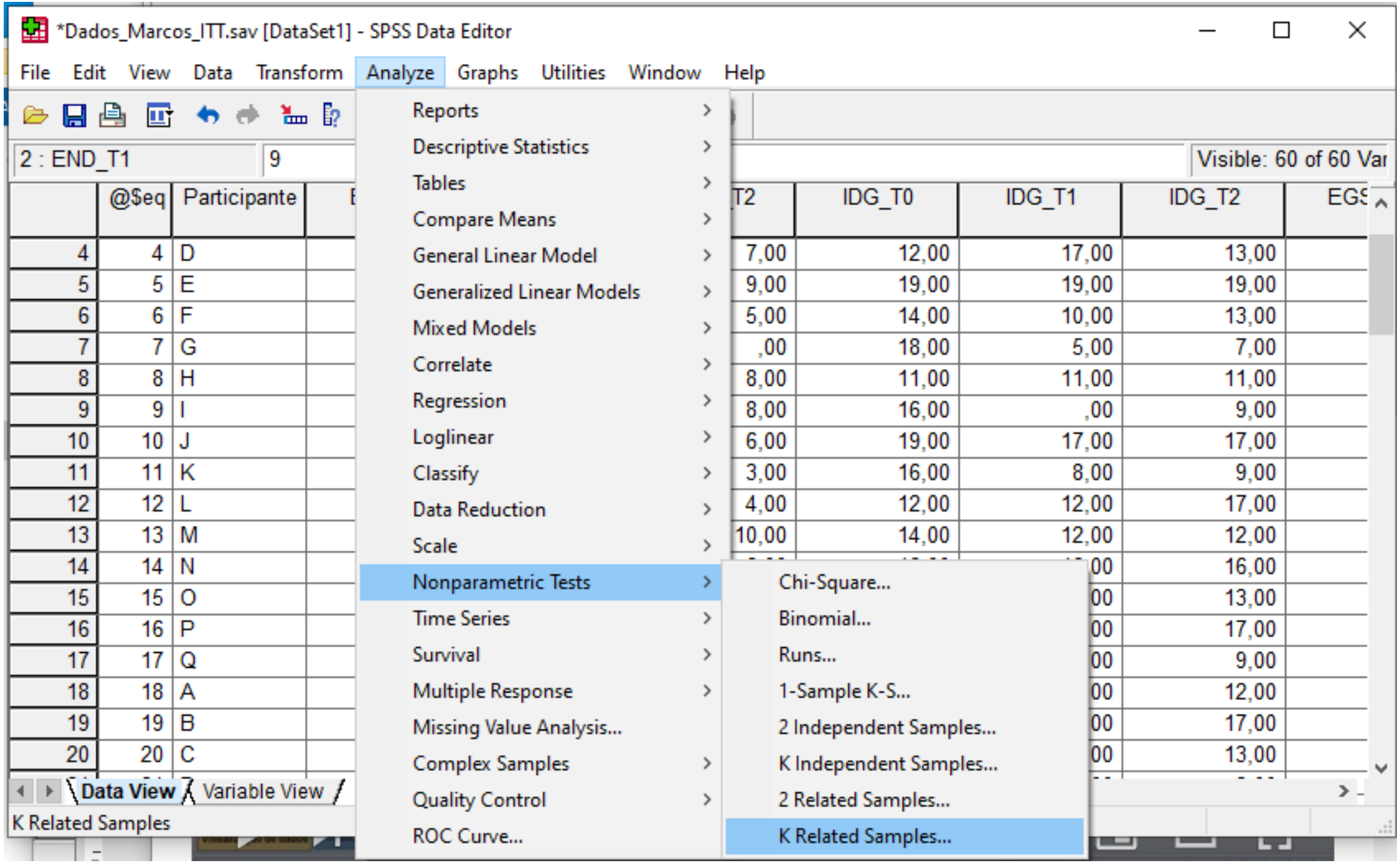


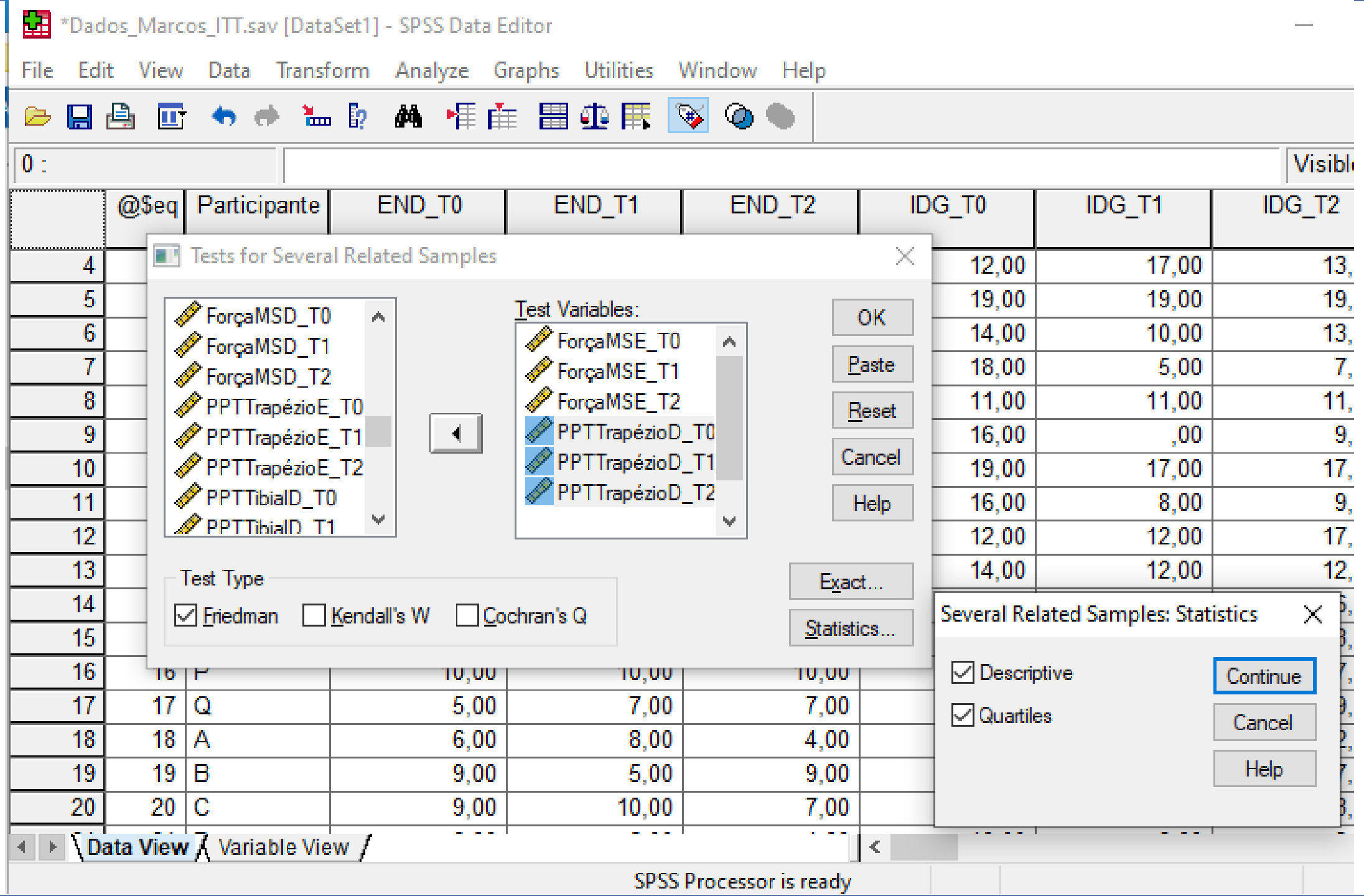
Output

O gráfico ajuda a compreender onde está a diferença mostrada no post-hoc.

TESTE DE FRIEDMAN

- Fazer o split file por grupos.


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
2 : END_T1
9
Visible: 60 of 60 Var
@$eq Participante T2 IDG_T0 IDG_T1 IDG_T2 EGS
4 4 D 7,00 12,00 17,00 13,00
5 5 E 9,00 19,00 19,00 19,00
6 6 F 5,00 14,00 10,00 13,00
7 7 G ,00 18,00 5,00 7,00
8 8 H 8,00 11,00 11,00 11,00
9 9 I 8,00 16,00 ,00 9,00
10 10 J 6,00 19,00 17,00 17,00
11 11 K 3,00 16,00 8,00 9,00
12 12 L 4,00 12,00 12,00 17,00
13 13 M 10,00 14,00 12,00 12,00
14 14 N 00 16,00
15 15 O 00 13,00
16 16 P 00 17,00
17 17 Q 00 9,00
18 18 A 00 12,00
19 19 B 00 17,00
20 20 C 00 13,00
Data View Variable View
K Related Samples
Reports
Descriptive Statistics
Tables
Compare Means
General Linear Model
Generalized Linear Models
Mixed Models
Correlate
Regression
Loglinear
Classify
Data Reduction
Scale
Nonparametric Tests
Time Series
Survival
Multiple Response
Missing Value Analysis...
Complex Samples
Quality Control
ROC Curve...
Chi-Square...
Binomial...
Runs...
1-Sample K-S...
2 Independent Samples...
K Independent Samples...
2 Related Samples...
K Related Samples...


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
0 :
Visibl
@$eq Participante END_T0 END_T1 END_T2 IDG_T0 IDG_T1 IDG_T2
4 12,00 17,00 13,
5 19,00 19,00 19,
6 14,00 10,00 13,
7 18,00 5,00 7,
8 11,00 11,00 11,
9 16,00 ,00 9,
10 19,00 17,00 17,
11 16,00 8,00 9,
12 12,00 12,00 17,
13 14,00 12,00 12,
14
15
16 16 P 10,00 10,00 10,00
17 17 Q 5,00 7,00 7,00
18 18 A 6,00 8,00 4,00
19 19 B 9,00 5,00 9,00
20 20 C 9,00 10,00 7,00
Data View Variable View
SPSS Processor is ready
Tests for Several Related Samples
ForçaMSD_T0
ForçaMSD_T1
ForçaMSD_T2
PPTTrapézioE_T0
PPTTrapézioE_T1
PPTTrapézioE_T2
PPTTibialD_T0
PPTTibialD_T1
Test Variables:
ForçaMSE_T0
ForçaMSE_T1
ForçaMSE_T2
PPTTrapézioD_T0
PPTTrapézioD_T1
PPTTrapézioD_T2
OK
Paste
Reset
Cancel
Help
Test Type
Friedman
Kendall's W
Cochran's Q
Exact...
Statistics...
Several Related Samples: Statistics
Descriptive
Quartiles
Continue
Cancel
Help

Descriptive Statistics

Grupos		N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
							25th	50th (Median)	75th
G1	PPTTrapézioD_T0	17	6,5765	2,95392	1,60	11,20	4,0000	6,5000	9,2000
	PPTTrapézioD_T1	17	5,3647	3,31077	1,60	13,60	2,9000	3,8000	7,7500
	PPTTrapézioD_T2	17	3,7706	2,29749	,60	9,70	1,9500	3,7000	4,7000
G2	PPTTrapézioD_T0	17	6,6882	10,59858	1,70	47,00	2,4000	3,8000	6,3500
	PPTTrapézioD_T1	17	4,2824	2,41589	1,60	9,70	2,3500	3,9000	6,1000
	PPTTrapézioD_T2	17	4,7176	4,56375	1,00	21,00	2,2500	3,1000	5,5500
G3	PPTTrapézioD_T0	17	4,5824	2,89811	1,50	10,40	2,2000	3,6000	5,9000
	PPTTrapézioD_T1	17	3,3235	1,37410	1,40	5,50	2,1000	3,0000	4,7000
	PPTTrapézioD_T2	17	3,2529	1,86149	,50	8,20	1,8000	2,7000	4,5000

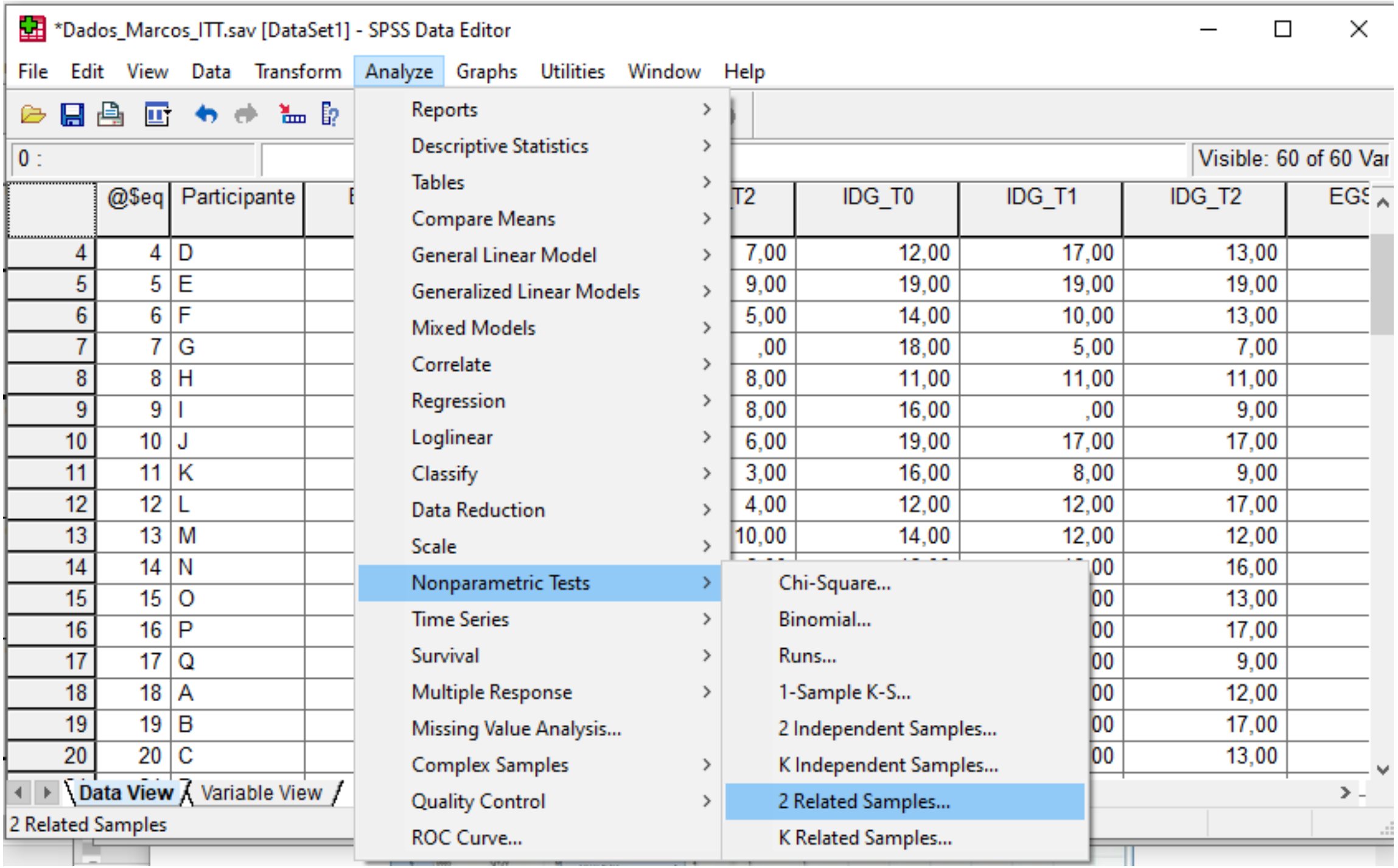
Test Statistics[a]

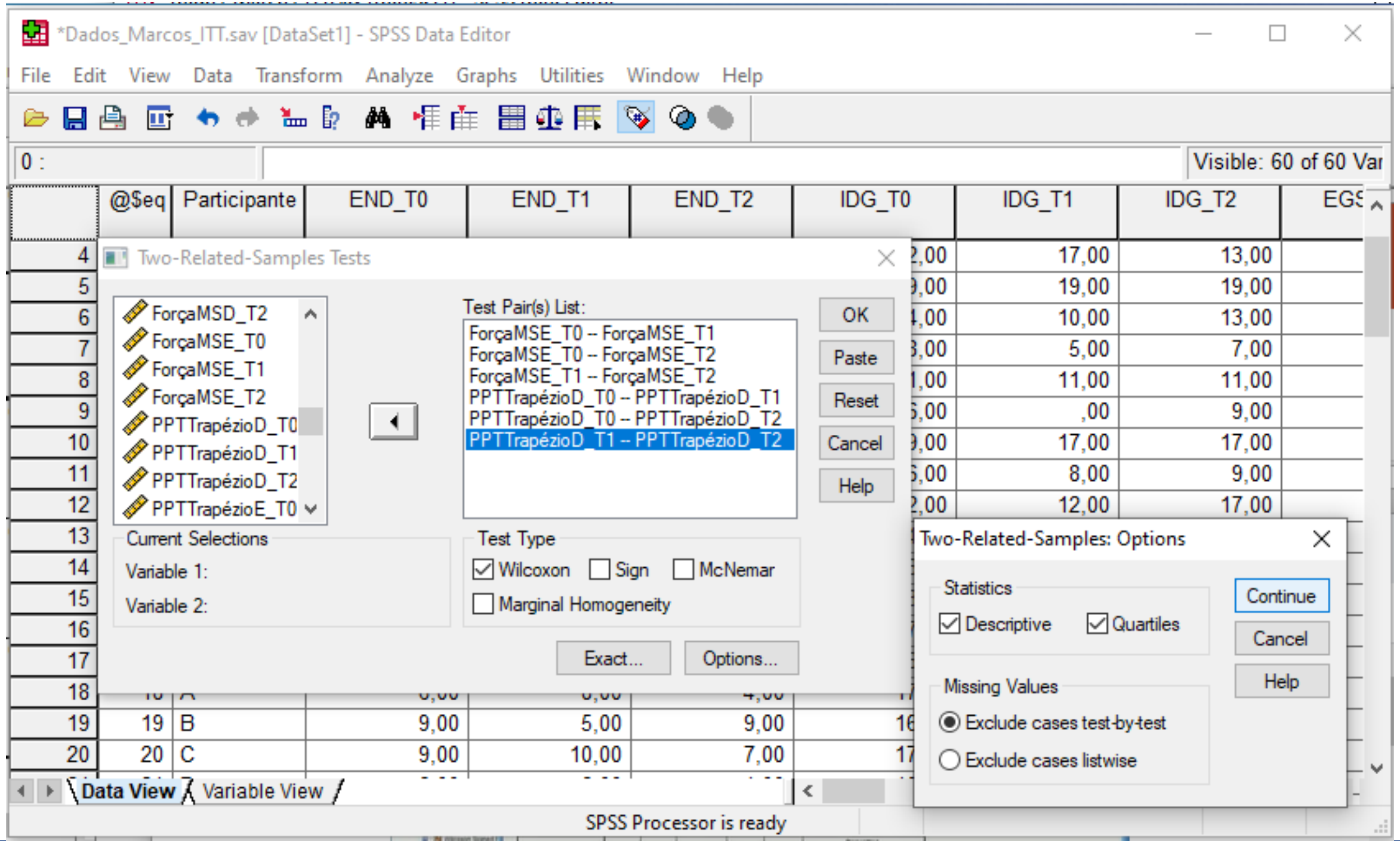
G1	N	17
	Chi-Square	13,500
	df	2
	Asymp. Sig.	,001
G2	N	17
	Chi-Square	4,000
	df	2
	Asymp. Sig.	,135
G3	N	17
	Chi-Square	13,623
	df	2
	Asymp. Sig.	,001

a. Friedman Test

TESTE DE WILCOXON

- Fazer o split file.


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
Reports
Descriptive Statistics
Tables
Compare Means
General Linear Model
Generalized Linear Models
Mixed Models
Correlate
Regression
Loglinear
Classify
Data Reduction
Scale
Nonparametric Tests
Time Series
Survival
Multiple Response
Missing Value Analysis...
Complex Samples
Quality Control
ROC Curve...
Chi-Square...
Binomial...
Runs...
1-Sample K-S...
2 Independent Samples...
K Independent Samples...
2 Related Samples...
K Related Samples...
0 :
Visible: 60 of 60 Var
@$eq
Participante
T2
IDG_T0
IDG_T1
IDG_T2
EGS
4 4 D 7,00 12,00 17,00 13,00
5 5 E 9,00 19,00 19,00 19,00
6 6 F 5,00 14,00 10,00 13,00
7 7 G ,00 18,00 5,00 7,00
8 8 H 8,00 11,00 11,00 11,00
9 9 I 8,00 16,00 ,00 9,00
10 10 J 6,00 19,00 17,00 17,00
11 11 K 3,00 16,00 8,00 9,00
12 12 L 4,00 12,00 12,00 17,00
13 13 M 10,00 14,00 12,00 12,00
14 14 N 00 16,00
15 15 O 00 13,00
16 16 P 00 17,00
17 17 Q 00 9,00
18 18 A 00 12,00
19 19 B 00 17,00
20 20 C 00 13,00
Data View
Variable View
2 Related Samples


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
0 :
Visible: 60 of 60 Var
@$eq Participante END_T0 END_T1 END_T2 IDG_T0 IDG_T1 IDG_T2 EGS
Two-Related-Samples Tests
ForçaMSD_T2
ForçaMSE_T0
ForçaMSE_T1
ForçaMSE_T2
PPTTrapézioD_T0
PPTTrapézioD_T1
PPTTrapézioD_T2
PPTTrapézioE_T0
Test Pair(s) List:
ForçaMSE_T0 -- ForçaMSE_T1
ForçaMSE_T0 -- ForçaMSE_T2
ForçaMSE_T1 -- ForçaMSE_T2
PPTTrapézioD_T0 -- PPTTrapézioD_T1
PPTTrapézioD_T0 -- PPTTrapézioD_T2
PPTTrapézioD_T1 -- PPTTrapézioD_T2
OK
Paste
Reset
Cancel
Help
Current Selections
Variable 1:
Variable 2:
Test Type
Wilcoxon
Sign
McNemar
Marginal Homogeneity
Exact...
Options...
Two-Related-Samples: Options
Statistics
Descriptive
Quartiles
Missing Values
Exclude cases test-by-test
Exclude cases listwise
Continue
Cancel
Help
Data View
Variable View
SPSS Processor is ready

Descriptive Statistics

Grupos		N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
							25th	50th (Median)	75th
G1	ForçaMSE_T0	17	21,3882	6,64886	12,10	33,00	14,4500	23,6000	26,5500
	ForçaMSE_T1	17	23,4588	7,91234	7,40	33,00	15,3000	27,5000	29,1000
	PPTTrapézioD_T0	17	6,5765	2,95392	1,60	11,20	4,0000	6,5000	9,2000
	PPTTrapézioD_T1	17	5,3647	3,31077	1,60	13,60	2,9000	3,8000	7,7500
	ForçaMSE_T2	17	20,5118	9,38675	2,70	33,00	12,4000	22,4000	28,1500
	PPTTrapézioD_T2	17	3,7706	2,29749	,60	9,70	1,9500	3,7000	4,7000
G2	ForçaMSE_T0	17	19,9882	6,65638	10,00	33,10	13,2000	20,8000	23,6500
	ForçaMSE_T1	17	20,9647	5,01310	15,00	31,10	16,8000	19,1000	23,9000
	PPTTrapézioD_T0	17	6,6882	10,59858	1,70	47,00	2,4000	3,8000	6,3500
	PPTTrapézioD_T1	17	4,2824	2,41589	1,60	9,70	2,3500	3,9000	6,1000
	ForçaMSE_T2	17	21,4588	4,60693	15,10	29,50	17,1500	22,0000	25,4500
	PPTTrapézioD_T2	17	4,7176	4,56375	1,00	21,00	2,2500	3,1000	5,5500
G3	ForçaMSE_T0	17	18,5176	7,39225	5,80	29,40	11,3500	18,7000	24,8500
	ForçaMSE_T1	17	19,0471	8,01663	9,00	30,40	11,2500	17,6000	26,5000
	PPTTrapézioD_T0	17	4,5824	2,89811	1,50	10,40	2,2000	3,6000	5,9000

Test Statistics[c]

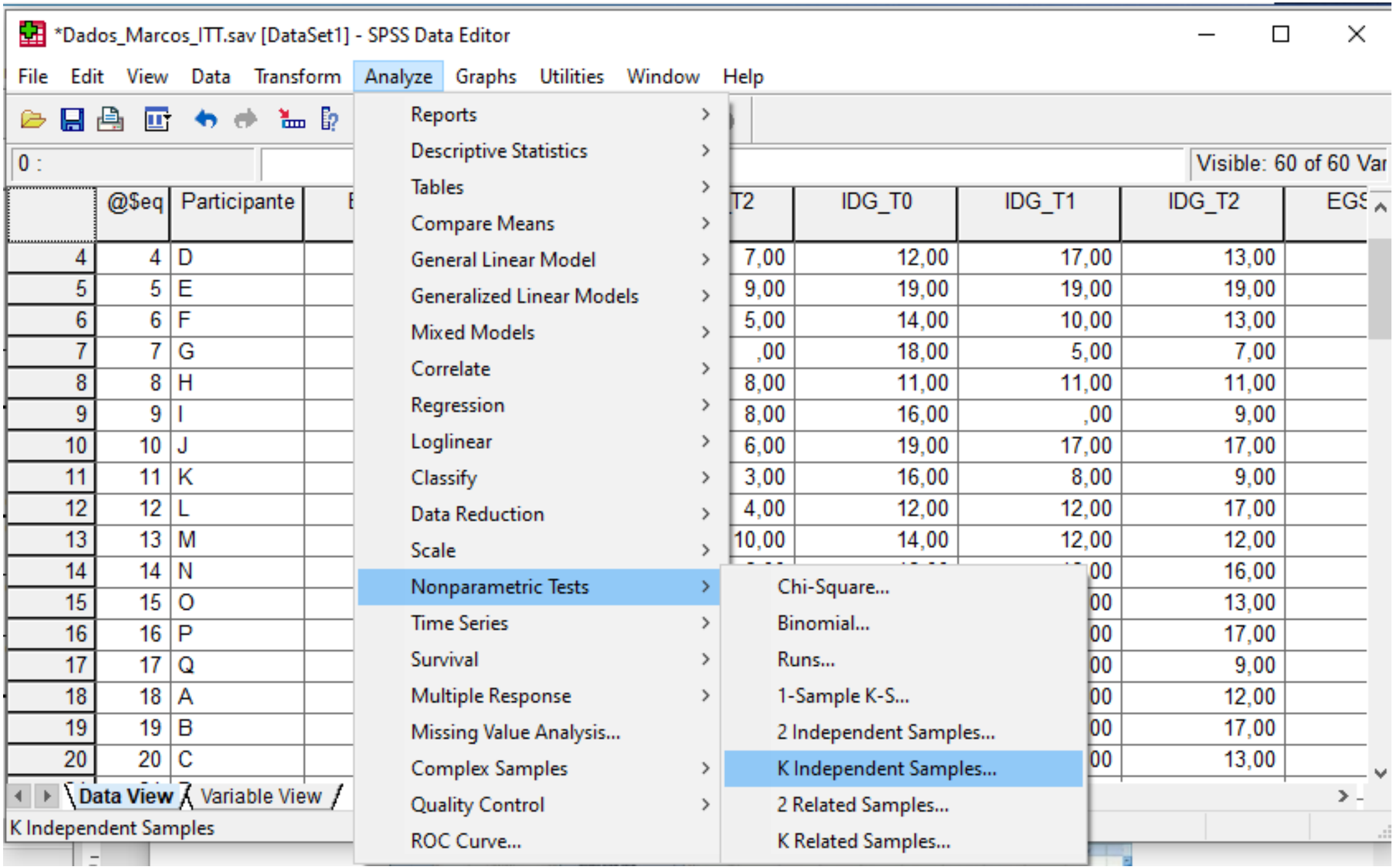
Grupos		ForçaMSE_T1 - ForçaMSE_ T0	ForçaMSE_T2 - ForçaMSE_ T0	ForçaMSE_T2 - ForçaMSE_ T1	PPTTrapéz ioD_T1 - PPTTrapéz ioD_T0	PPTTrapéz ioD_T2 - PPTTrapéz ioD_T0	PPTTrapéz ioD_T2 - PPTTrapéz ioD_T1
G1	Z	-1,915[a]	-,220[b]	-2,197[b]	-1,434[b]	-2,857[b]	-2,936[b]
	Asymp. Sig. (2-tailed)	,056	,826	,028	,152	,004	,003
G2	Z	-,994[a]	-1,776[a]	-1,294[a]	-,655[b]	-1,610[b]	-,839[b]
	Asymp. Sig. (2-tailed)	,320	,076	,196	,513	,107	,401
G3	Z	-,455[a]	-,534[a]	-1,020[a]	-2,261[b]	-2,386[b]	-,949[b]
	Asymp. Sig. (2-tailed)	,649	,594	,308	,024	,017	,343

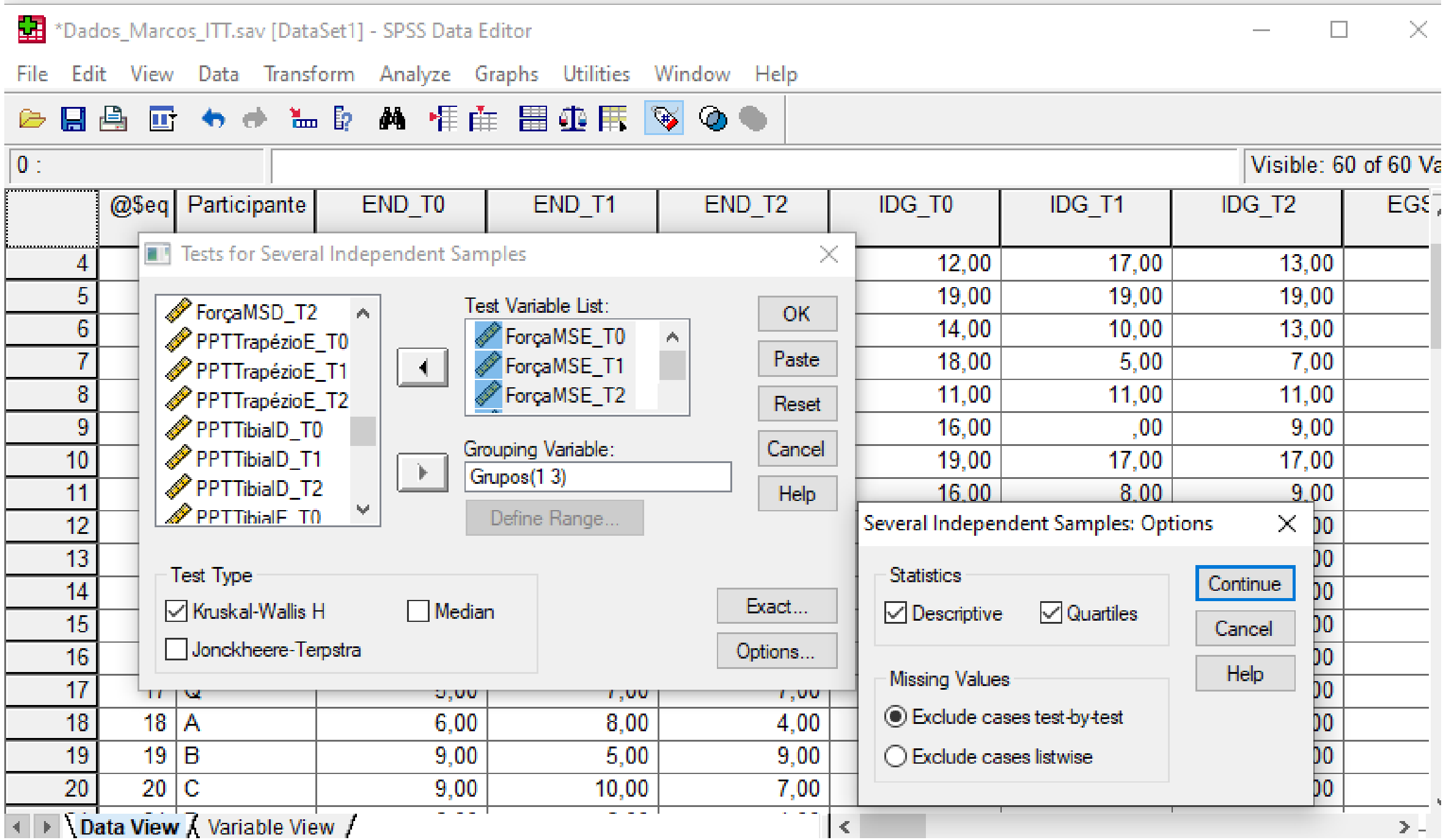
a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

TESTE DE KRUSKAL-WALLIS


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
Reports
Descriptive Statistics
Tables
Compare Means
General Linear Model
Generalized Linear Models
Mixed Models
Correlate
Regression
Loglinear
Classify
Data Reduction
Scale
Nonparametric Tests
Time Series
Survival
Multiple Response
Missing Value Analysis...
Complex Samples
Quality Control
ROC Curve...
Chi-Square...
Binomial...
Runs...
1-Sample K-S...
2 Independent Samples...
K Independent Samples...
2 Related Samples...
K Related Samples...
0 :
Visible: 60 of 60 Var
@$eq
Participante
T2
IDG_T0
IDG_T1
IDG_T2
EGS
4 4 D 7,00 12,00 17,00 13,00
5 5 E 9,00 19,00 19,00 19,00
6 6 F 5,00 14,00 10,00 13,00
7 7 G ,00 18,00 5,00 7,00
8 8 H 8,00 11,00 11,00 11,00
9 9 I 8,00 16,00 ,00 9,00
10 10 J 6,00 19,00 17,00 17,00
11 11 K 3,00 16,00 8,00 9,00
12 12 L 4,00 12,00 12,00 17,00
13 13 M 10,00 14,00 12,00 12,00
14 14 N 00 16,00
15 15 O 00 13,00
16 16 P 00 17,00
17 17 Q 00 9,00
18 18 A 00 12,00
19 19 B 00 17,00
20 20 C 00 13,00
Data View
Variable View
K Independent Samples


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
0 :
Visible: 60 of 60 Va
@$eq Participante END_T0 END_T1 END_T2 IDG_T0 IDG_T1 IDG_T2 EGS
4 12,00 17,00 13,00
5 19,00 19,00 19,00
6 14,00 10,00 13,00
7 18,00 5,00 7,00
8 11,00 11,00 11,00
9 16,00 ,00 9,00
10 19,00 17,00 17,00
11 16,00 8,00 9,00
12
13
14
15
16
17
18 18 A 6,00 8,00 4,00
19 19 B 9,00 5,00 9,00
20 20 C 9,00 10,00 7,00
Data View Variable View
Tests for Several Independent Samples
ForçaMSD_T2
PPTTrapézioE_T0
PPTTrapézioE_T1
PPTTrapézioE_T2
PPTTibialD_T0
PPTTibialD_T1
PPTTibialD_T2
Test Variable List:
ForçaMSE_T0
ForçaMSE_T1
ForçaMSE_T2
Grouping Variable:
Grupos(1 3)
Define Range...
OK
Paste
Reset
Cancel
Help
Test Type
Kruskal-Wallis H
Median
Jonckheere-Terpstra
Exact...
Options...
Several Independent Samples: Options
Statistics
Descriptive
Quartiles
Missing Values
Exclude cases test-by-test
Exclude cases listwise
Continue
Cancel
Help

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
ForçaMSE_T0	51	19,9647	6,87112	5,80	33,10	13,7000	20,8000	25,7000
ForçaMSE_T1	51	21,1569	7,20892	7,40	33,00	15,1000	22,3000	27,6000
ForçaMSE_T2	51	20,6608	7,59653	2,70	37,20	14,1000	22,4000	26,4000
PPTTrapézioD_T0	51	5,9490	6,51000	1,50	47,00	3,0000	4,2000	7,5000
PPTTrapézioD_T1	51	4,3235	2,58624	1,40	13,60	2,4000	3,4000	5,5000
PPTTrapézioD_T2	51	3,9137	3,13656	,50	21,00	2,1000	3,4000	4,7000
Grupos	51	2,00	,825	1	3	1,00	2,00	3,00

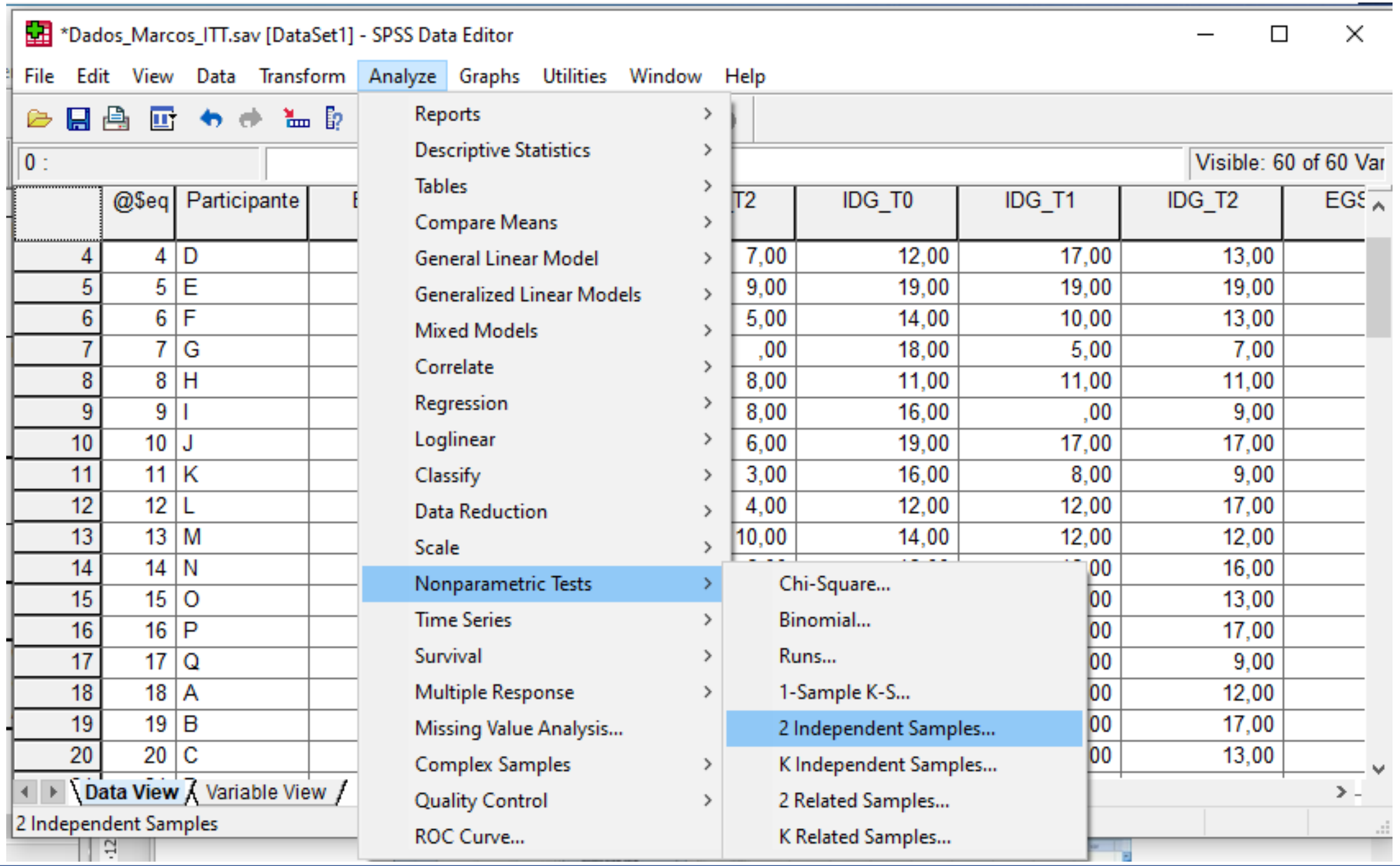
Test Statistics[a,b]

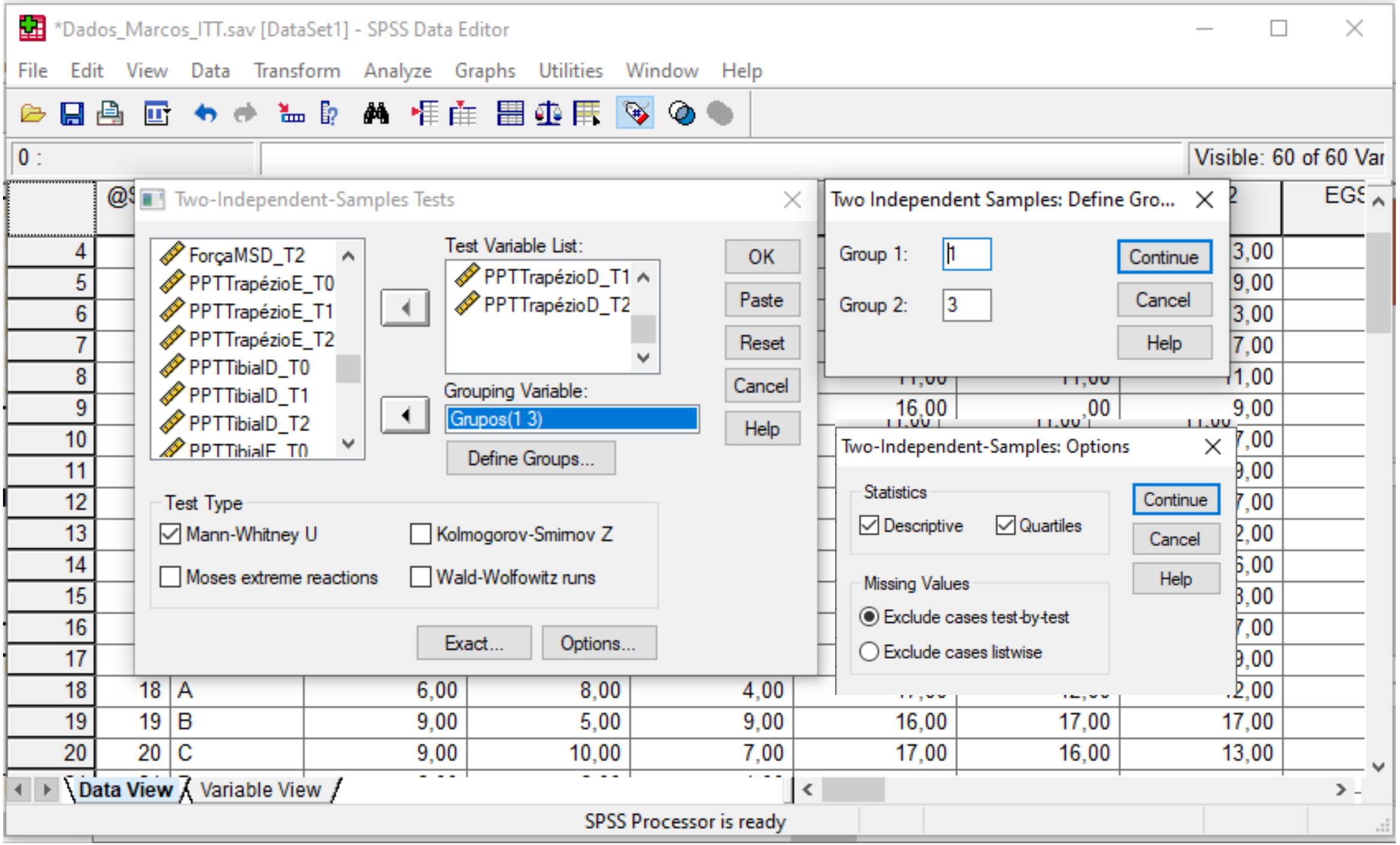
	ForçaMSE_T0	ForçaMSE_T1	ForçaMSE_T2	PPTTrapézioD_T0	PPTTrapézioD_T1	PPTTrapézioD_T2
Chi-Square	1,383	3,707	,426	5,966	3,845	1,021
df	2	2	2	2	2	2
Asymp. Sig.	,501	,157	,808	,051	,146	,600

a. Kruskal Wallis Test

b. Grouping Variable: Grupos

TESTE DE MANN-WHITNEY U


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
Reports
Descriptive Statistics
Tables
Compare Means
General Linear Model
Generalized Linear Models
Mixed Models
Correlate
Regression
Loglinear
Classify
Data Reduction
Scale
Nonparametric Tests
Time Series
Survival
Multiple Response
Missing Value Analysis...
Complex Samples
Quality Control
ROC Curve...
Chi-Square...
Binomial...
Runs...
1-Sample K-S...
2 Independent Samples...
K Independent Samples...
2 Related Samples...
K Related Samples...
0 :
Visible: 60 of 60 Var
@$eq
Participante
T2
IDG_T0
IDG_T1
IDG_T2
EGS
4 4 D 7,00 12,00 17,00 13,00
5 5 E 9,00 19,00 19,00 19,00
6 6 F 5,00 14,00 10,00 13,00
7 7 G ,00 18,00 5,00 7,00
8 8 H 8,00 11,00 11,00 11,00
9 9 I 8,00 16,00 ,00 9,00
10 10 J 6,00 19,00 17,00 17,00
11 11 K 3,00 16,00 8,00 9,00
12 12 L 4,00 12,00 12,00 17,00
13 13 M 10,00 14,00 12,00 12,00
14 14 N 00 16,00
15 15 O 00 13,00
16 16 P 00 17,00
17 17 Q 00 9,00
18 18 A 00 12,00
19 19 B 00 17,00
20 20 C 00 13,00
Data View
Variable View
2 Independent Samples


*Dados_Marcos_ITT.sav [DataSet1] - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
0 :
Visible: 60 of 60 Var
Two-Independent-Samples Tests
ForçaMSD_T2
PPTTrapézioE_T0
PPTTrapézioE_T1
PPTTrapézioE_T2
PPTTibialD_T0
PPTTibialD_T1
PPTTibialD_T2
Test Variable List:
PPTTrapézioD_T1
PPTTrapézioD_T2
Grouping Variable:
Grupos(1 3)
Define Groups...
OK
Paste
Reset
Cancel
Help
Test Type
Mann-Whitney U
Kolmogorov-Smimov Z
Moses extreme reactions
Wald-Wolfowitz runs
Exact...
Options...
Two Independent Samples: Define Gro...
Group 1: 1
Group 2: 3
Continue
Cancel
Help
Two-Independent-Samples: Options
Statistics
Descriptive
Quartiles
Missing Values
Exclude cases test-by-test
Exclude cases listwise
Continue
Cancel
Help
Data View
Variable View
SPSS Processor is ready

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
ForçaMSE_T0	51	19,9647	6,87112	5,80	33,10	13,7000	20,8000	25,7000
ForçaMSE_T1	51	21,1569	7,20892	7,40	33,00	15,1000	22,3000	27,6000
ForçaMSE_T2	51	20,6608	7,59653	2,70	37,20	14,1000	22,4000	26,4000
PPTTrapézioD_T0	51	5,9490	6,51000	1,50	47,00	3,0000	4,2000	7,5000
PPTTrapézioD_T1	51	4,3235	2,58624	1,40	13,60	2,4000	3,4000	5,5000
PPTTrapézioD_T2	51	3,9137	3,13656	,50	21,00	2,1000	3,4000	4,7000
Grupos	51	2,00	,825	1	3	1,00	2,00	3,00

Test Statistics[b]

	ForçaMSE_T0	ForçaMSE_T1	ForçaMSE_T2	PPTTrapézioD_T0	PPTTrapézioD_T1	PPTTrapézioD_T2
Mann-Whitney U	114,000	90,000	134,000	83,500	92,000	132,000
Wilcoxon W	267,000	243,000	287,000	236,500	245,000	285,000
Z	-1,051	-1,878	-,362	-2,102	-1,810	-,431
Asymp. Sig. (2-tailed)	,293	,060	,717	,036	,070	,666
Exact Sig. [2*(1-tailed Sig.)]	,306[a]	,062[a]	,734[a]	,034[a]	,073[a]	,683[a]

a. Not corrected for ties.

b. Grouping Variable: Grupos