Mixed Model Analysis - NULL MODEL

Notes

Output Created		20-MAY-2022 11:2...
Comments		
Input	Active Dataset	ZbiórDanych1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2,414
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

Syntax	MIXED pLpC_l1 /CRITERIA=DFMETHOD (SATTERTHWAITE) CIN(95) MXITER (100) MXSTEP(10) SCORING(1) SINGULAR (0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE (0.000001, ABSOLUTE) /FIXED=| SSTYPE (3) /METHOD=REML /PRINT=SOLUTION TESTCOV /RANDOM=INTERCEPT	SUBJECT (Group_no) COVTYPE(VC).

Notes

Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.00

Model Dimension[a]

		Number of Levels	Covariance Structure	Number of Parameters
Fixed Effects	Intercept	1		1
Random Effects	Intercept[b]	1	Variance Components	1
Residual				1
Total		2		3

Model Dimension[a]

		Subject Variables
Fixed Effects	Intercept	
Random Effects	Intercept[b]	Group_no
Residual		
Total		

[a] Dependent Variable: pLpC_l1.

[b] As of version 11.5, the syntax rules for the RANDOM subcommand have changed. Your command syntax may yield results that differ from those produced by prior versions. If you are using version 11 syntax, please consult the current syntax reference guide for more information.

Information Criteria[a]

-2 Restricted Log Likelihood	6,480.035
Akaike's Information Criterion (AIC)	6,484.035
Hurvich and Tsai's Criterion (AICC)	6,484.040
Bozdogan's Criterion (CAIC)	6,497.605
Schwarz's Bayesian Criterion (BIC)	6,495.605

The information criteria are displayed in smaller-is-better form.

[a] Dependent Variable: pLpC_l1.

Fixed Effects

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	6.883	1.413	.274

[a.] Dependent Variable: pLpC_l1.

Estimates of Fixed Effects[a]

Parameter	Estimate	Std. Error	df	t	Sig.
Intercept	.126215	.106182	6.883	1.189	.274

Estimates of Fixed Effects[a]

	95% Confidence Interval	
Parameter	Lower Bound	Upper Bound
Intercept	-.125731	.378162

[a.] Dependent Variable: pLpC_l1.

Covariance Parameters

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error	Wald Z
Residual		.855078	.024695	34.626
Intercept [subject = Group_no]	Variance	.086966	.048611	1.789

Estimates of Covariance Parameters[a]

			95% Confidence Interval	
Parameter		Sig.	Lower Bound	Upper Bound
Residual		.000	.808022	.904875
Intercept [subject = Group_no]	Variance	.074	.029078	.260100

[a.] Dependent Variable: pLpC_l1.

Mixed Model Analysis MODEL WITH ONE INTERACTION

Notes

Output Created		20-MAY-2022 11:2...
Comments		
Input	Active Dataset	ZbiórDanych1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2,414
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

Syntax	MIXED pLpC_l1 BY TT_patt WITH pL_pC0 /CRITERIA=DFMETHOD (SATTERTHWAITE) CIN(95) MXITER (100) MXSTEP(10) SCORING(1) SINGULAR (0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE (0.000001, ABSOLUTE) /FIXED=TT_patt pL_pC0 TT_patt*pL_pC0 | SSTYPE(3) /METHOD=REML /PRINT=SOLUTION TESTCOV /RANDOM=INTERCEPT | SUBJECT (Group_no) COVTYPE(VC).

Notes

Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.00

Model Dimension[a]

		Number of Levels	Covariance Structure
Fixed Effects	Intercept	1	
	TT_patt	2	
	pL_pC0	1	
	TT_patt * pL_pC0	2	
Random Effects	Intercept[b]	1	Variance Components
Residual			
Total		7	

Model Dimension[a]

		Number of Parameters	Subject Variables
Fixed Effects	Intercept	1	
	TT_patt	1	
	pL_pC0	1	
	TT_patt * pL_pC0	1	
Random Effects	Intercept[b]	1	Group_no
Residual		1	
Total		6	

[a] Dependent Variable: pLpC_l1.

[b] As of version 11.5, the syntax rules for the RANDOM subcommand have changed. Your command syntax may yield results that differ from those produced by prior versions. If you are using version 11 syntax, please consult the current syntax reference guide for more information.

Information Criteria[a]

-2 Restricted Log Likelihood	6,463.462
Akaike's Information Criterion (AIC)	6,467.462
Hurvich and Tsai's Criterion (AICC)	6,467.467
Bozdogan's Criterion (CAIC)	6,481.023
Schwarz's Bayesian Criterion (BIC)	6,479.023

The information criteria are displayed in smaller-is-better form.

[a] Dependent Variable: pLpC_l1.

Fixed Effects

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	6.853	1.376	.280
TT_patt	1	2,389.887	.184	.668
pL_pC0	1	2,393.992	.170	.680
TT_patt * pL_pC0	1	2,387.322	14.557	.000

[a.] Dependent Variable: pLpC_l1.

Estimates of Fixed Effects[a]

Parameter	Estimate	Std. Error	df	t
Intercept	.116376	.107689	7.232	1.081
[TT_patt=1]	.016486	.038436	2,389.887	.429
[TT_patt=2]	0[b]	0	.	.
pL_pC0	.083900	.028904	2,391.117	2.903
[TT_patt=1] * pL_pC0	-.150987	.039573	2,387.322	-3.815
[TT_patt=2] * pL_pC0	0[b]	0	.	.

Estimates of Fixed Effects[a]

		95% Confidence Interval	
Parameter	Sig.	Lower Bound	Upper Bound
Intercept	.315	-.136622	.369374
[TT_patt=1]	.668	-.058885	.091856
[TT_patt=2]	.	.	.
pL_pC0	.004	.027221	.140579
[TT_patt=1] * pL_pC0	.000	-.228589	-.073386
[TT_patt=2] * pL_pC0	.	.	.

[a] Dependent Variable: pLpC_l1.

[b] This parameter is set to zero because it is redundant.

Covariance Parameters

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error	Wald Z
Residual		.852454	.024676	34.546
Intercept [subject = Group_no]	Variance	.086992	.048773	1.784

Estimates of Covariance Parameters[a]

			95% Confidence Interval	
Parameter		Sig.	Lower Bound	Upper Bound
Residual		.000	.805436	.902216
Intercept [subject = Group_no]	Variance	.074	.028990	.261046

[a] Dependent Variable: pLpC_l1.

Mixed Model Analysis MODEL with TWO INTERACTIONS

Notes

Output Created		20-MAY-2022 11:2...
Comments		
Input	Active Dataset	ZbiórDanych1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2,414
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

Syntax	MIXED pLpC_l1 BY TT_patt Gr_ud WITH pL_pC0 /CRITERIA=DFMETHOD (SATTERTHWAITE) CIN(95) MXITER (100) MXSTEP(10) SCORING(1) SINGULAR (0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE (0.000001, ABSOLUTE) /FIXED=TT_patt pL_pC0 TT_patt*pL_pC0 Gr_ud Gr_ud*pL_pC0 | SSTYPE(3) /METHOD=REML /PRINT=SOLUTION TESTCOV /RANDOM=INTERCEPT | SUBJECT (Group_no) COVTYPE(VC).

Notes

Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.00

Model Dimension[a]

		Number of Levels	Covariance Structure
Fixed Effects	Intercept	1	
	TT_patt	2	
	pL_pC0	1	
	TT_patt * pL_pC0	2	
	Gr_ud	2	
	Gr_ud * pL_pC0	2	
Random Effects	Intercept[b]	1	Variance Components
Residual			
Total		11	

Model Dimension[a]

		Number of Parameters	Subject Variables
Fixed Effects	Intercept	1	
	TT_patt	1	
	pL_pC0	1	
	TT_patt * pL_pC0	1	
	Gr_ud	1	
	Gr_ud * pL_pC0	1	
Random Effects	Intercept[b]	1	Group_no
Residual		1	
Total		8	

a. Dependent Variable: pLpC_l1.

b. As of version 11.5, the syntax rules for the RANDOM subcommand have changed. Your command syntax may yield results that differ from those produced by prior versions. If you are using version 11 syntax, please consult the current syntax reference guide for more information.

Information Criteria[a]

-2 Restricted Log Likelihood	6,445.968
Akaike's Information Criterion (AIC)	6,449.968
Hurvich and Tsai's Criterion (AICC)	6,449.973
Bozdogan's Criterion (CAIC)	6,463.528
Schwarz's Bayesian Criterion (BIC)	6,461.528

The information criteria are displayed in

smaller-is-better form.

[a.] Dependent Variable: pLpC_l1.

Fixed Effects

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	5.910	1.466	.272
TT_patt	1	2,389.558	.080	.777
pL_pC0	1	2,391.956	.086	.769
TT_patt * pL_pC0	1	2,386.231	18.872	.000
Gr_ud	1	5.905	1.870	.221
Gr_ud * pL_pC0	1	2,391.977	21.751	.000

[a.] Dependent Variable: pLpC_l1.

Estimates of Fixed Effects[a]

Parameter	Estimate	Std. Error	df	t
Intercept	-.019904	.131192	6.020	-.152
[TT_patt=1]	.010848	.038294	2,389.558	.283
[TT_patt=2]	0[b]	0	.	.
pL_pC0	-.003286	.034325	2,386.785	-.096
[TT_patt=1] * pL_pC0	-.172360	.039676	2,386.231	-4.344
[TT_patt=2] * pL_pC0	0[b]	0	.	.
[Gr_ud=1.00]	.252531	.184648	5.905	1.368
[Gr_ud=2.00]	0[b]	0	.	.
[Gr_ud=1.00] * pL_pC0	.190880	.040928	2,391.977	4.664
[Gr_ud=2.00] * pL_pC0	0[b]	0	.	.

Estimates of Fixed Effects[a]

		95% Confidence Interval	
Parameter	Sig.	Lower Bound	Upper Bound
Intercept	.884	-.340656	.300848
[TT_patt=1]	.777	-.064245	.085940
[TT_patt=2]	.	.	.
pL_pC0	.924	-.070596	.064023
[TT_patt=1] * pL_pC0	.000	-.250163	-.094558
[TT_patt=2] * pL_pC0	.	.	.
[Gr_ud=1.00]	.221	-.201045	.706106
[Gr_ud=2.00]	.	.	.
[Gr_ud=1.00] * pL_pC0	.000	.110621	.271138
[Gr_ud=2.00] * pL_pC0	.	.	.

a. Dependent Variable: pLpC_l1.

b. This parameter is set to zero because it is redundant.

Covariance Parameters

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error	Wald Z
Residual		.845476	.024479	34.539
Intercept [subject = Group_no]	Variance	.064875	.039670	1.635

Estimates of Covariance Parameters[a]

			95% Confidence Interval	
Parameter		Sig.	Lower Bound	Upper Bound
Residual		.000	.798835	.894841
Intercept [subject = Group_no]	Variance	.102	.019570	.215065

a. Dependent Variable: pLpC_l1.

Regression

Notes

Output Created		20-MAY-2022 11:3...
Comments		
Input	Active Dataset	ZbiórDanych1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2,414
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.

Notes

Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA CHANGE /CRITERIA=PIN(. 05) POUT(.10) /NOORIGIN /DEPENDENT pLpC_l1 /METHOD=ENTER pL_pC0 TT_patt Gr_ud /METHOD=ENTER second_interaction /METHOD=STEPWI SE first_interaction.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.00

Notes

	Memory Required	5,808 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Gr_ud, TT_patt, pL_pC0[b]	.	Enter
2	second_interaction[b]	.	Enter
3	first_interaction	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: pLpC_l1

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.116[a]	.013	.012	.950
2	.169[b]	.028	.027	.943
3	.189[c]	.036	.034	.940

Model Summary

	Change Statistics				
Model	R Square Change	F Change	df1	df2	Sig. F Change
1	.013	10.846	3	2,394	.000
2	.015	37.098	1	2,393	.000
3	.007	17.553	1	2,392	.000

a. Predictors: (Constant), Gr_ud, TT_patt, pL_pC0

b. Predictors: (Constant), Gr_ud, TT_patt, pL_pC0, second_interaction

c. Predictors: (Constant), Gr_ud, TT_patt, pL_pC0, second_interaction, first_interaction

ANOVA [a]

Model		Sum of Squares	df	Mean Square	F
1	Regression	29.385	3	9.795	10.846
	Residual	2,161.968	2,394	.903	
	Total	2,191.353	2,397		
2	Regression	62.389	4	15.597	17.532
	Residual	2,128.963	2,393	.890	
	Total	2,191.353	2,397		
3	Regression	77.899	5	15.580	17.633
	Residual	2,113.454	2,392	.884	
	Total	2,191.353	2,397		

ANOVA [a]

Model		Sig.
1	Regression	.000[b]
	Residual	
	Total	
2	Regression	.000[c]
	Residual	
	Total	
3	Regression	.000[d]
	Residual	
	Total	

a. Dependent Variable: pLpC_l1

b. Predictors: (Constant), Gr_ud, TT_patt, pL_pC0

c. Predictors: (Constant), Gr_ud, TT_patt, pL_pC0, second_interaction

d. Predictors: (Constant), Gr_ud, TT_patt, pL_pC0, second_interaction, first_interaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	.376	.088	
	pL_pC0	.059	.020	.059
	TT_patt	-.025	.039	-.013
	Gr_ud	-.180	.039	-.093
2	(Constant)	.328	.088	
	pL_pC0	.421	.063	.421
	TT_patt	-.016	.039	-.009
	Gr_ud	-.164	.039	-.085
	second_interaction	-.248	.041	-.382
3	(Constant)	.341	.088	
	pL_pC0	.200	.082	.200
	TT_patt	-.025	.039	-.013
	Gr_ud	-.165	.039	-.086
	second_interaction	-.268	.041	-.413
	first_interaction	.170	.041	.265

Coefficients[a]

Model		t	Sig.
1	(Constant)	4.261	.000
	pL_pC0	2.890	.004
	TT_patt	-.639	.523
	Gr_ud	-4.569	.000
2	(Constant)	3.733	.000
	pL_pC0	6.705	.000
	TT_patt	-.424	.672
	Gr_ud	-4.195	.000
	second_interaction	-6.091	.000
3	(Constant)	3.895	.000
	pL_pC0	2.436	.015
	TT_patt	-.658	.511
	Gr_ud	-4.246	.000
	second_interaction	-6.563	.000
	first_interaction	4.190	.000

[a.] Dependent Variable: pLpC_l1

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation
1	second_interaction	-.382[b]	-6.091	.000	-.124
	first_interaction	.216[b]	3.410	.001	.070
2	first_interaction	.265[c]	4.190	.000	.085

Excluded Variables[a]

		Collinearity Statistics
Model		Tolerance
1	second_interaction	.103
	first_interaction	.102
2	first_interaction	.101

a. Dependent Variable: pLpC_l1

b. Predictors in the Model: (Constant), Gr_ud, TT_patt, pL_pC0

c. Predictors in the Model: (Constant), Gr_ud, TT_patt, pL_pC0, second_interaction