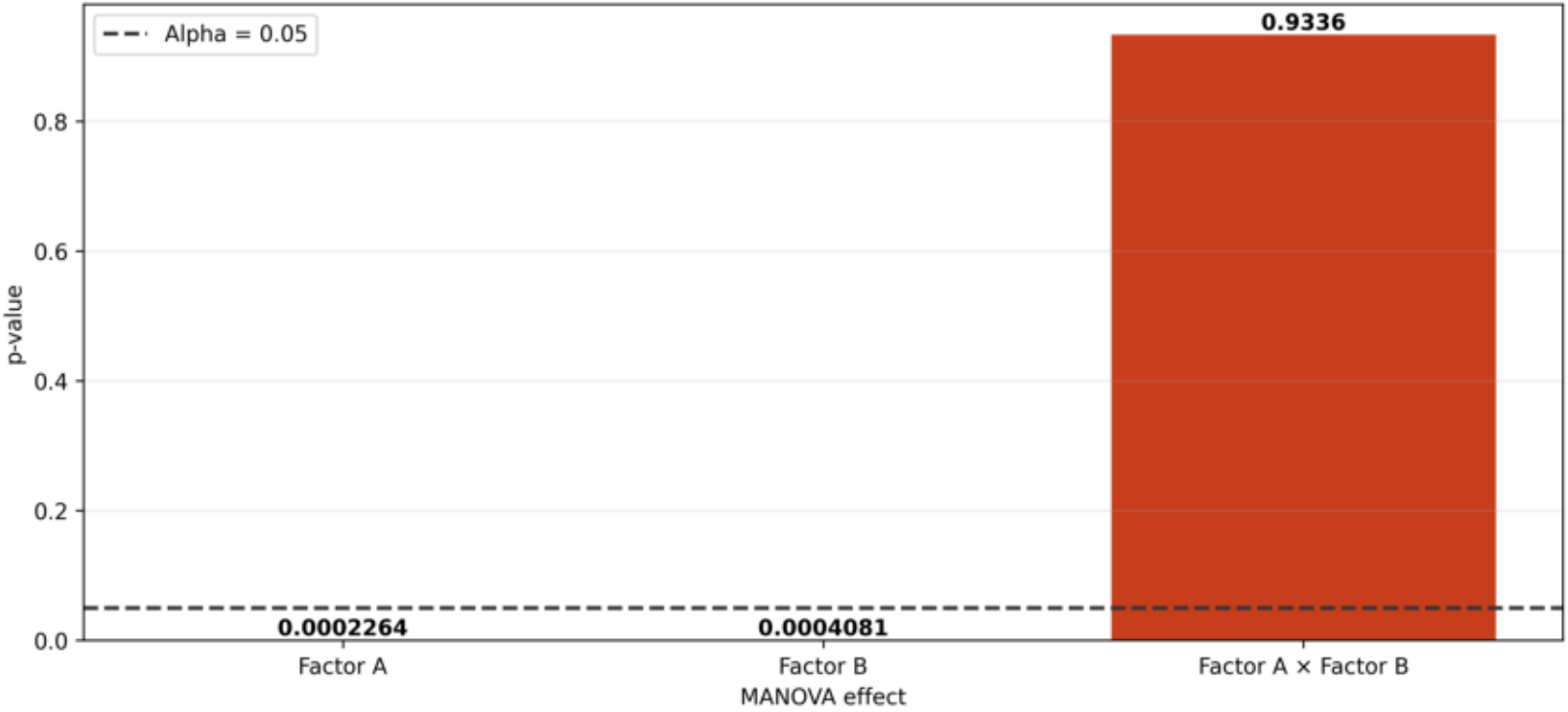
Two Way MANOVA Python Report

Charts and tables are saved in Python_Output.

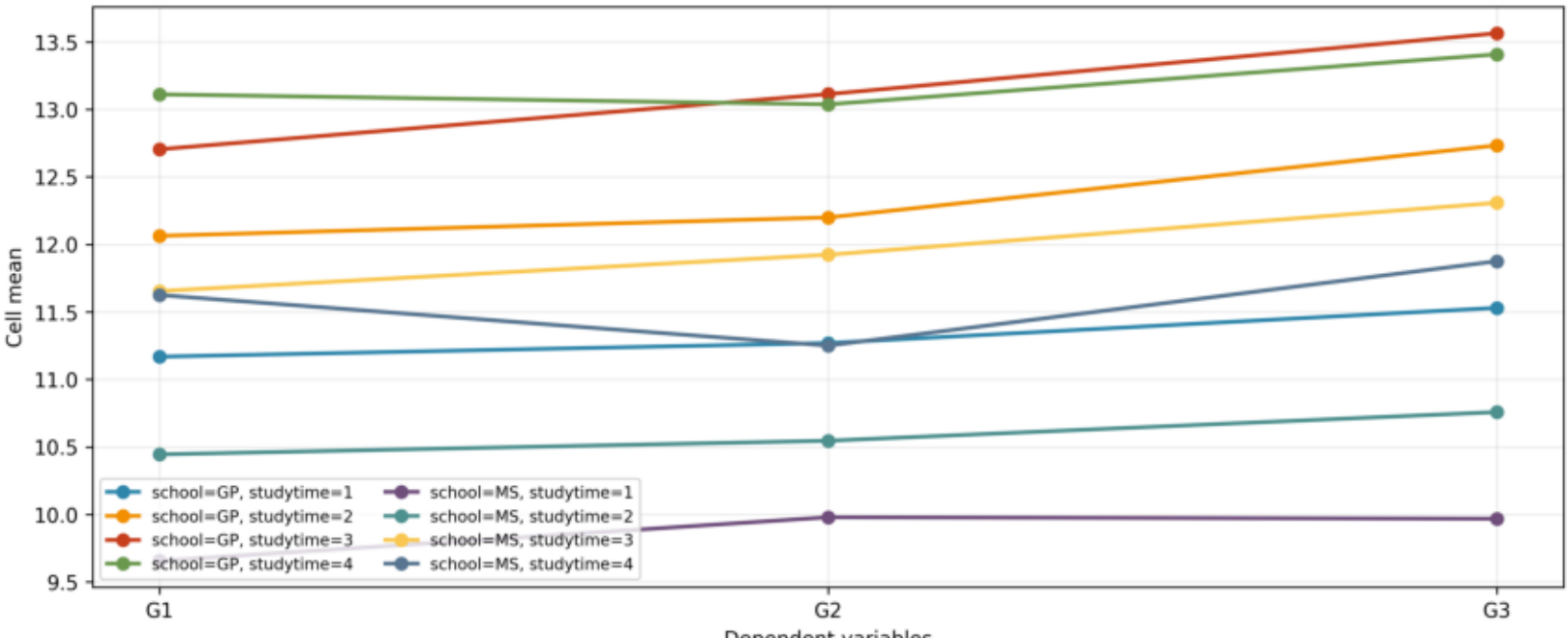
Two Way MANOVA: Pillai p-values

Pillai's trace is a robust primary multivariate decision line.



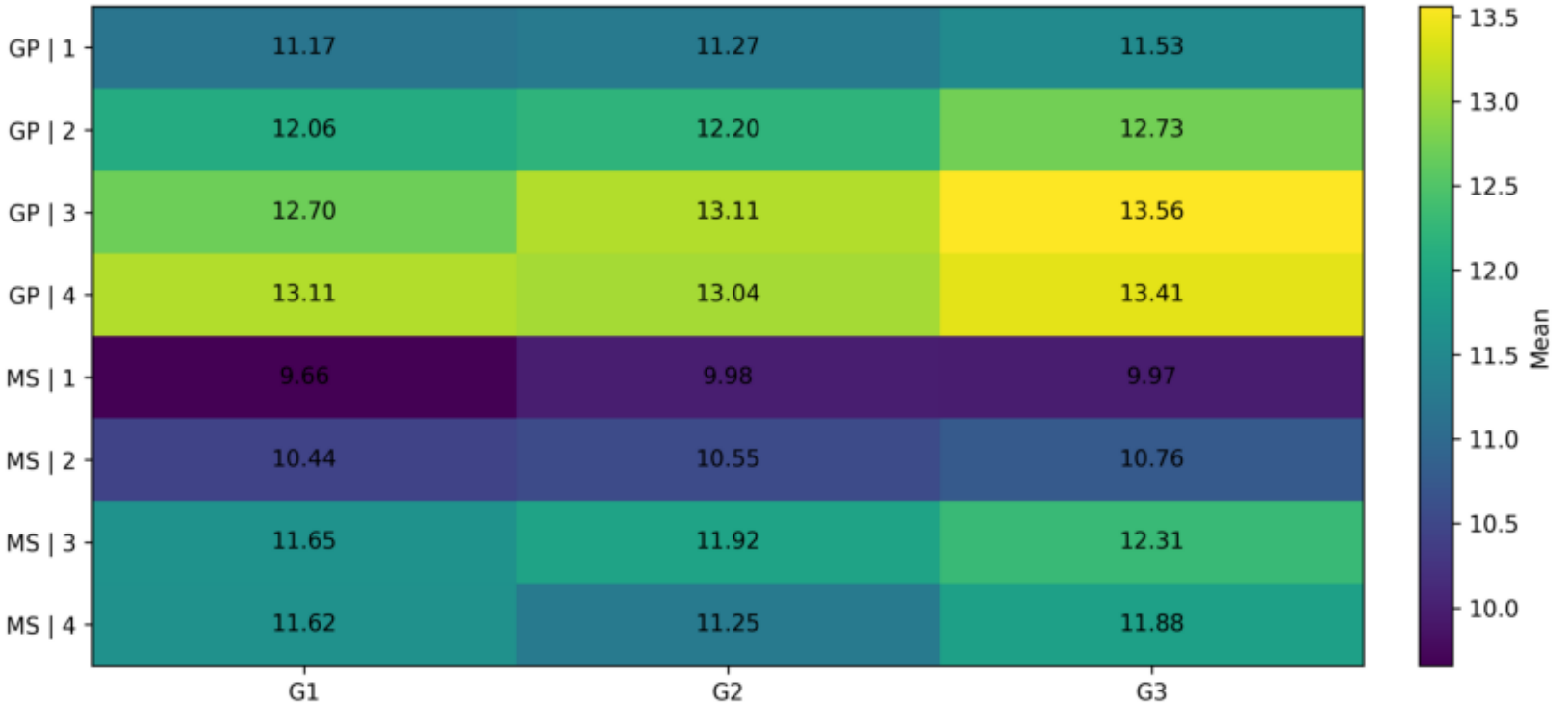
Two Way MANOVA: Multivariate Cell Mean Profile

Non-parallel profiles suggest possible interaction across dependent variables.



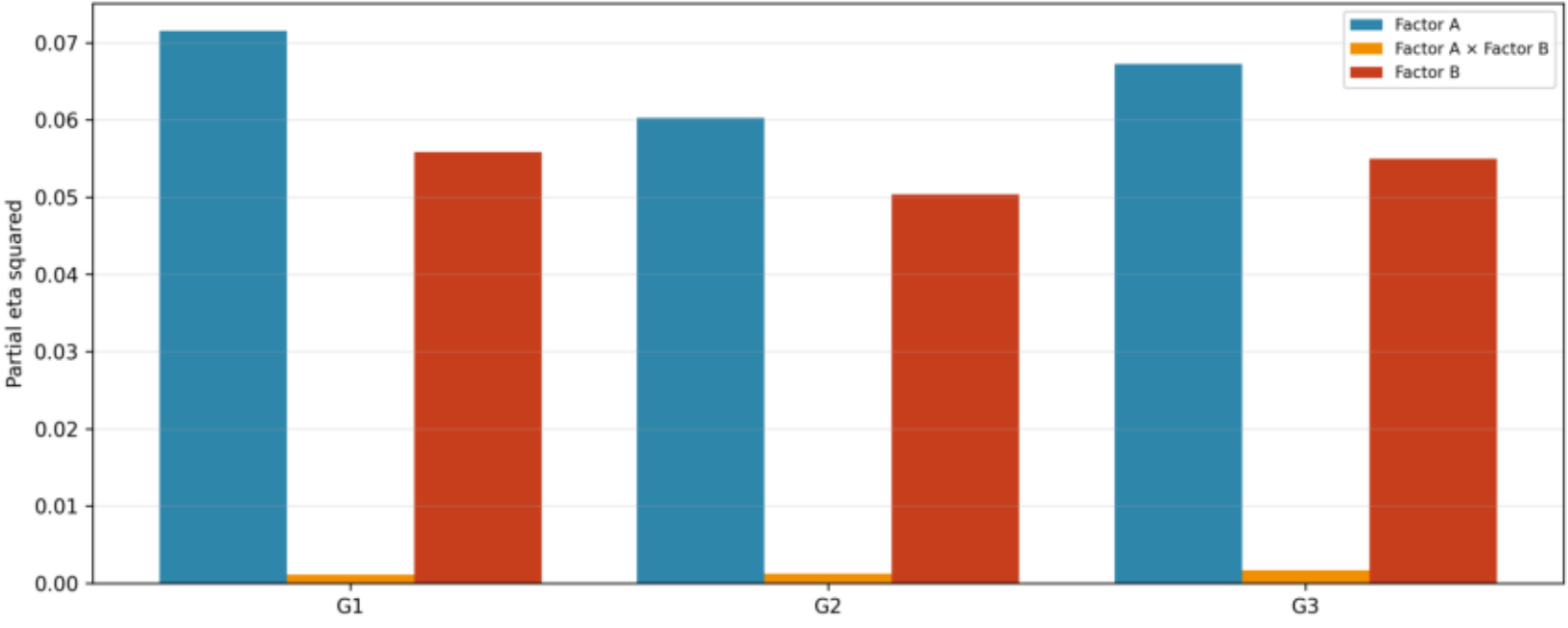
Two Way MANOVA: Mean Heatmap

Cells compare factor combinations across all dependent variables.



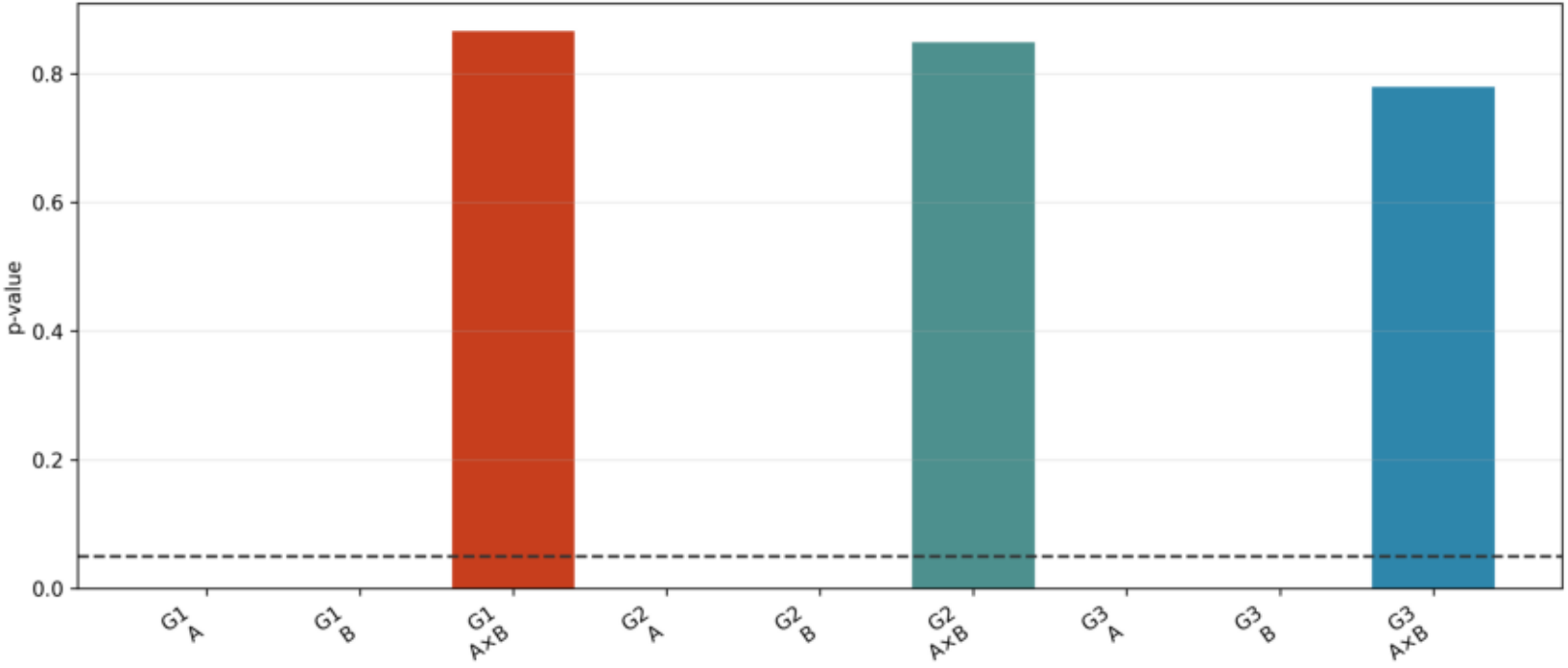
Follow-up ANOVA: Partial Eta Squared

Shows which dependent variables are most influenced by each two-way MANOVA effect.



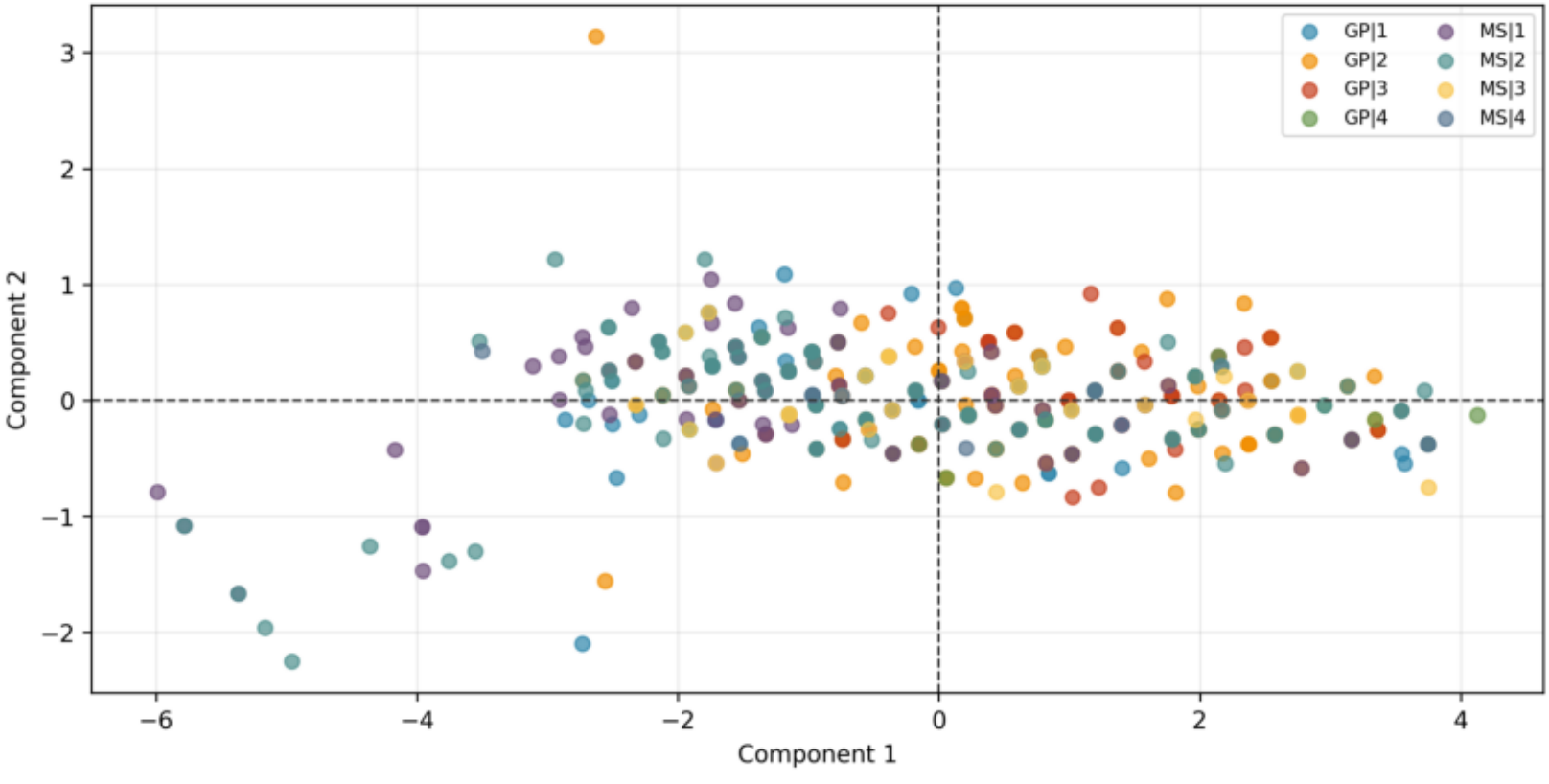
Follow-up ANOVA p-values

Use these only after reviewing the multivariate MANOVA result.



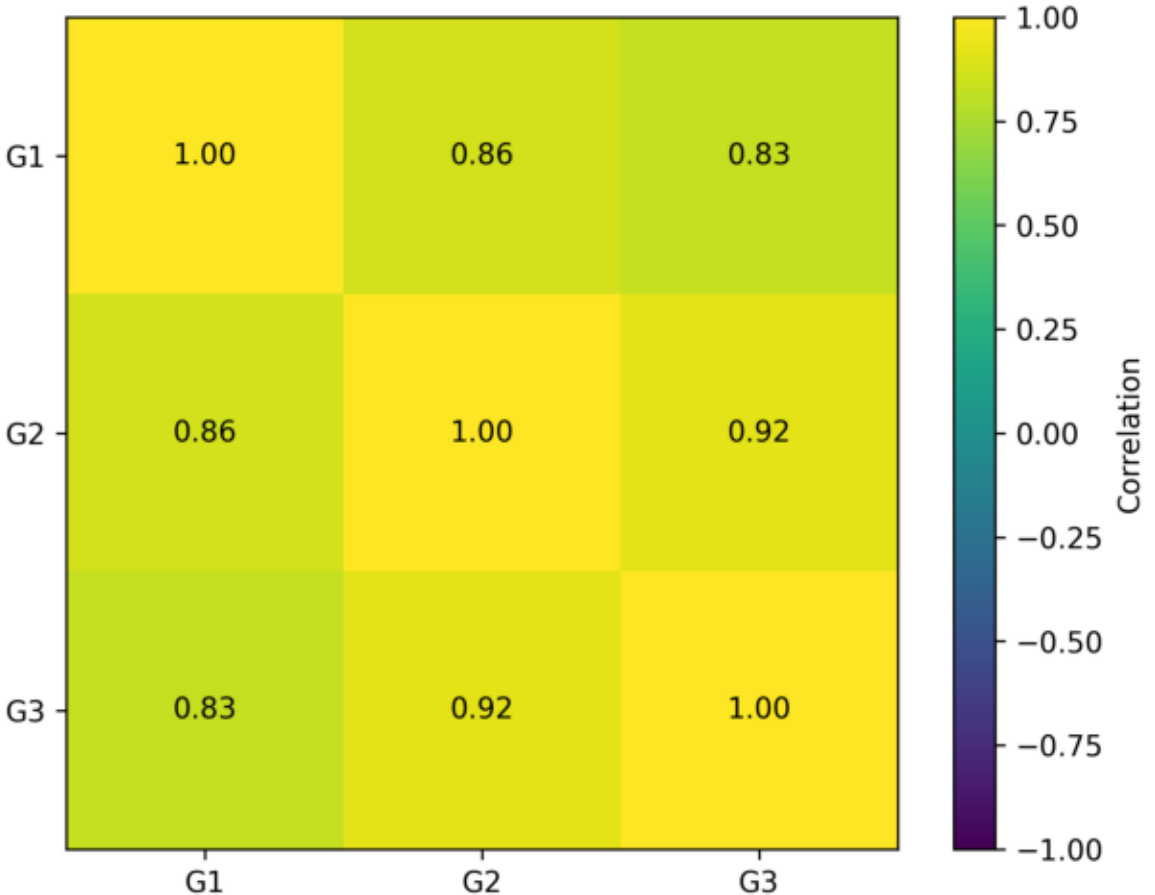
Two Way MANOVA: Multivariate Score Scatter

Principal-component scores visualize group separation across all outcomes.



Dependent Variable Correlation

MANOVA is most useful when outcomes are conceptually related and correlated.



Two Way MANOVA Summary Table

Primary multivariate results shown using Pillai's trace.

Effect	Pillai	F	p	Decision
Factor A	0.02987	6.559	0.0002264	Reject H0
Factor B	0.04664	3.374	0.0004081	Reject H0
Factor A × Factor B	0.005659	0.4038	0.9336	Fail to reject H0