

Partial Eta Squared ANOVA Report

Outcome: G3

Primary factor: studytime

Secondary factor: school

Formula: $\text{partial eta squared} = \text{SS_effect} / (\text{SS_effect} + \text{SS_error})$

Largest effect: school

Partial eta squared: 0.067231

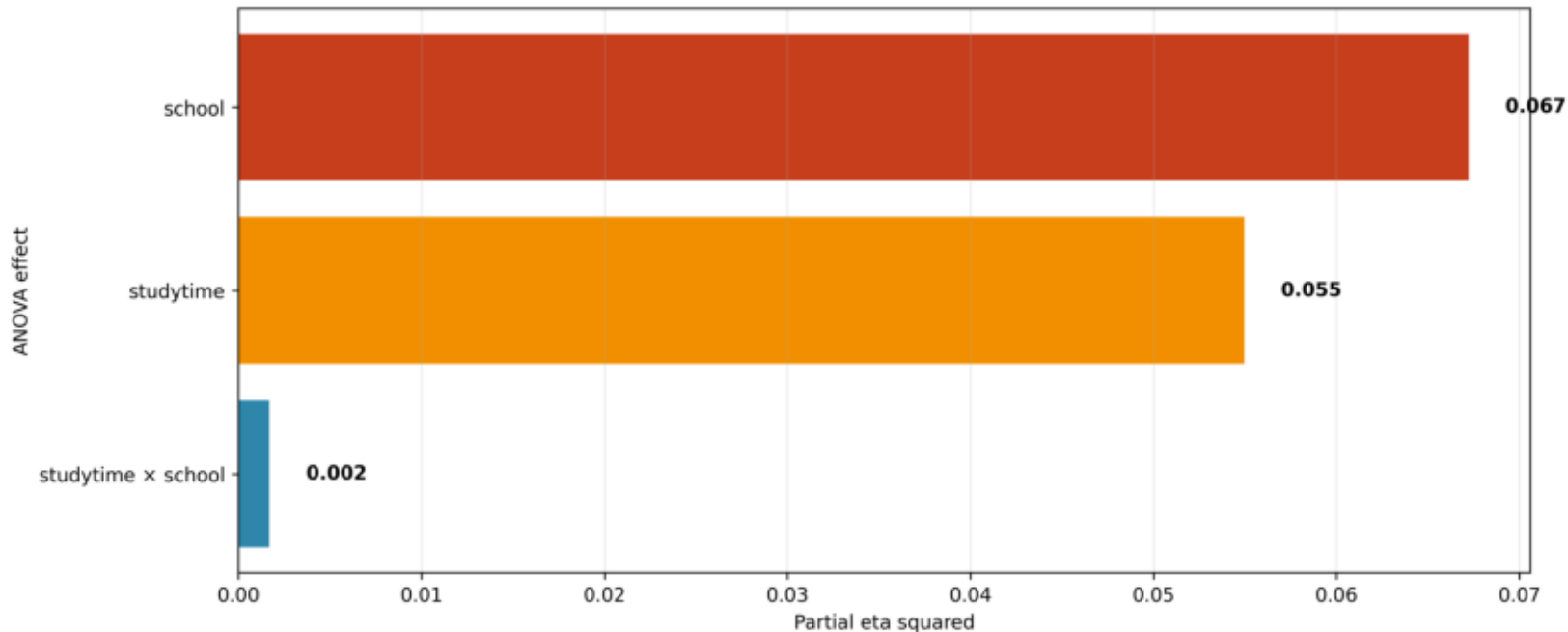
Effect-size label: Medium

Rules of thumb: .01 small, .06 medium, .14 large.

Interpret these benchmarks with your research context.

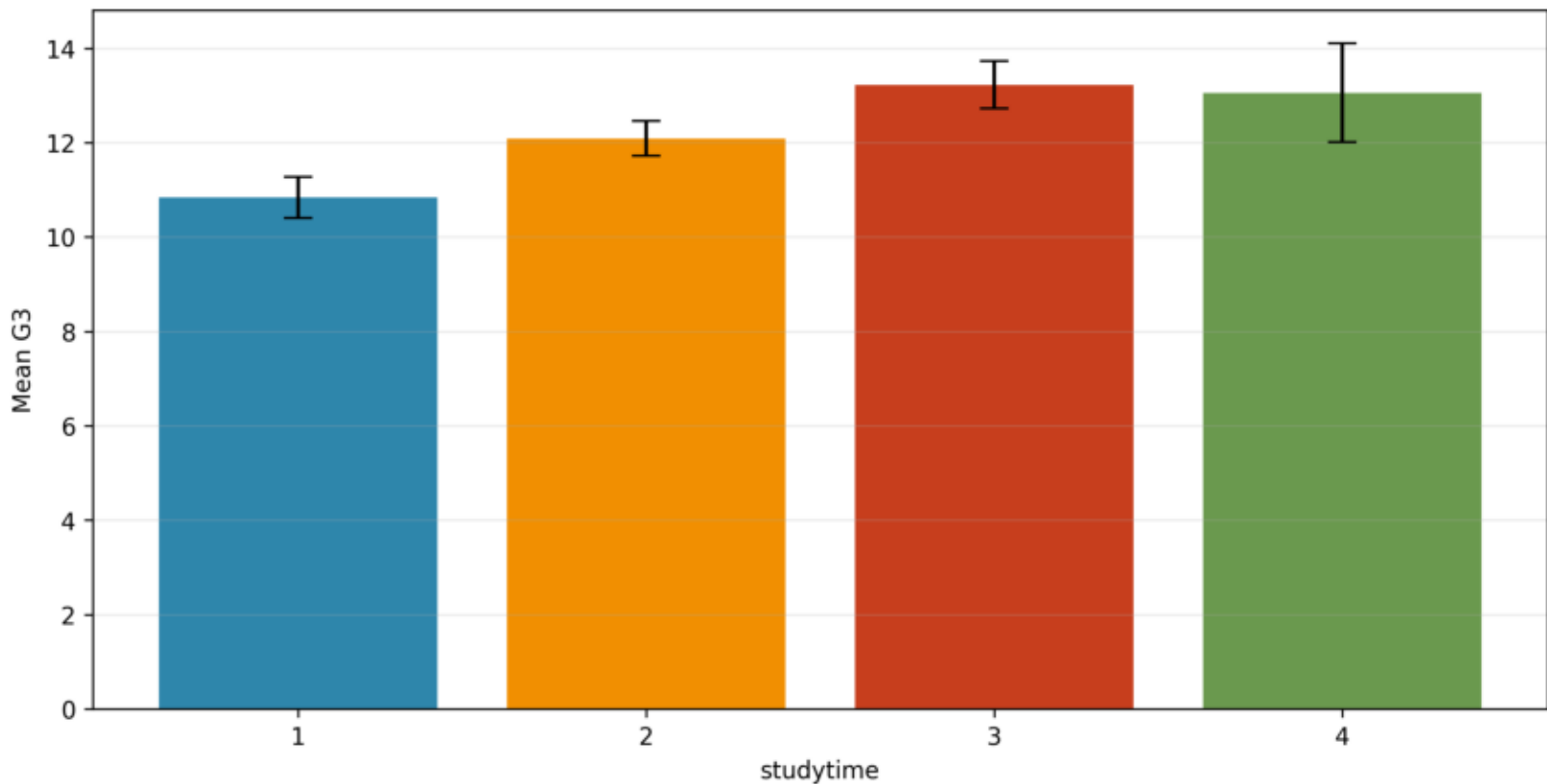
Partial Eta Squared by ANOVA Effect

Higher values show a larger share of explainable outcome variation for that effect.



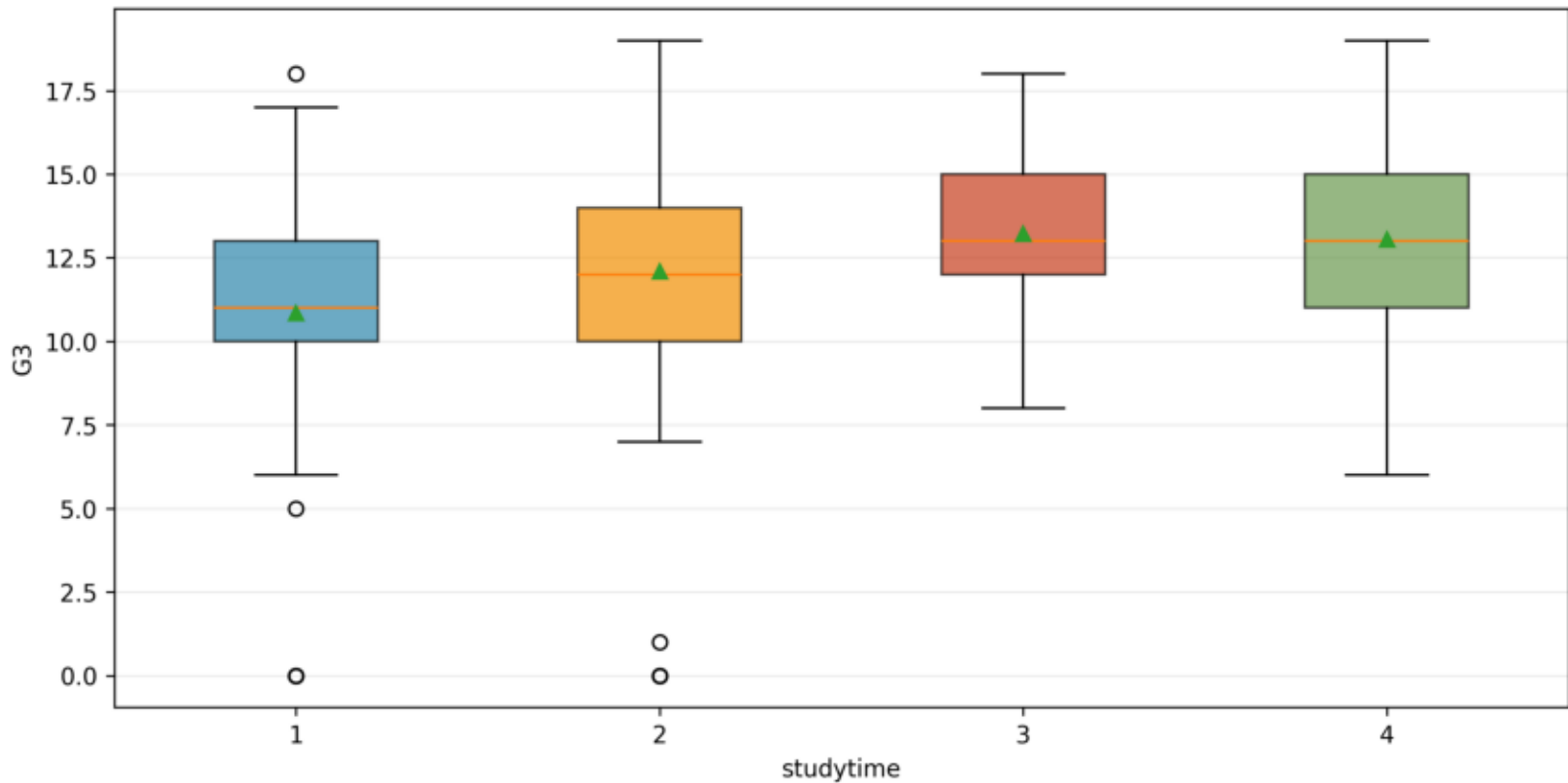
Mean G3 by studytime

Bars show group means with 95% confidence intervals.



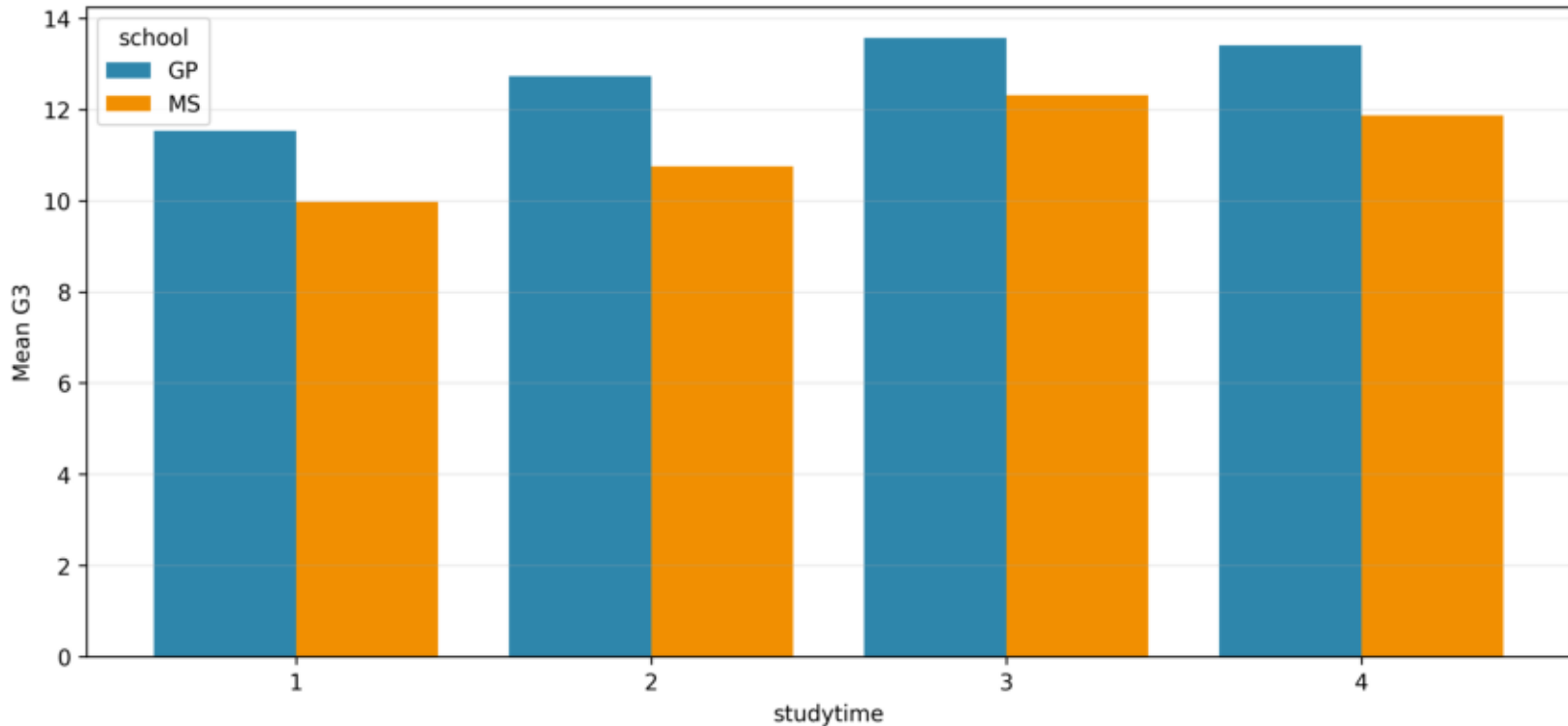
Distribution of G3 by studytime

Boxplots show spread, median, mean marker, and possible outliers.



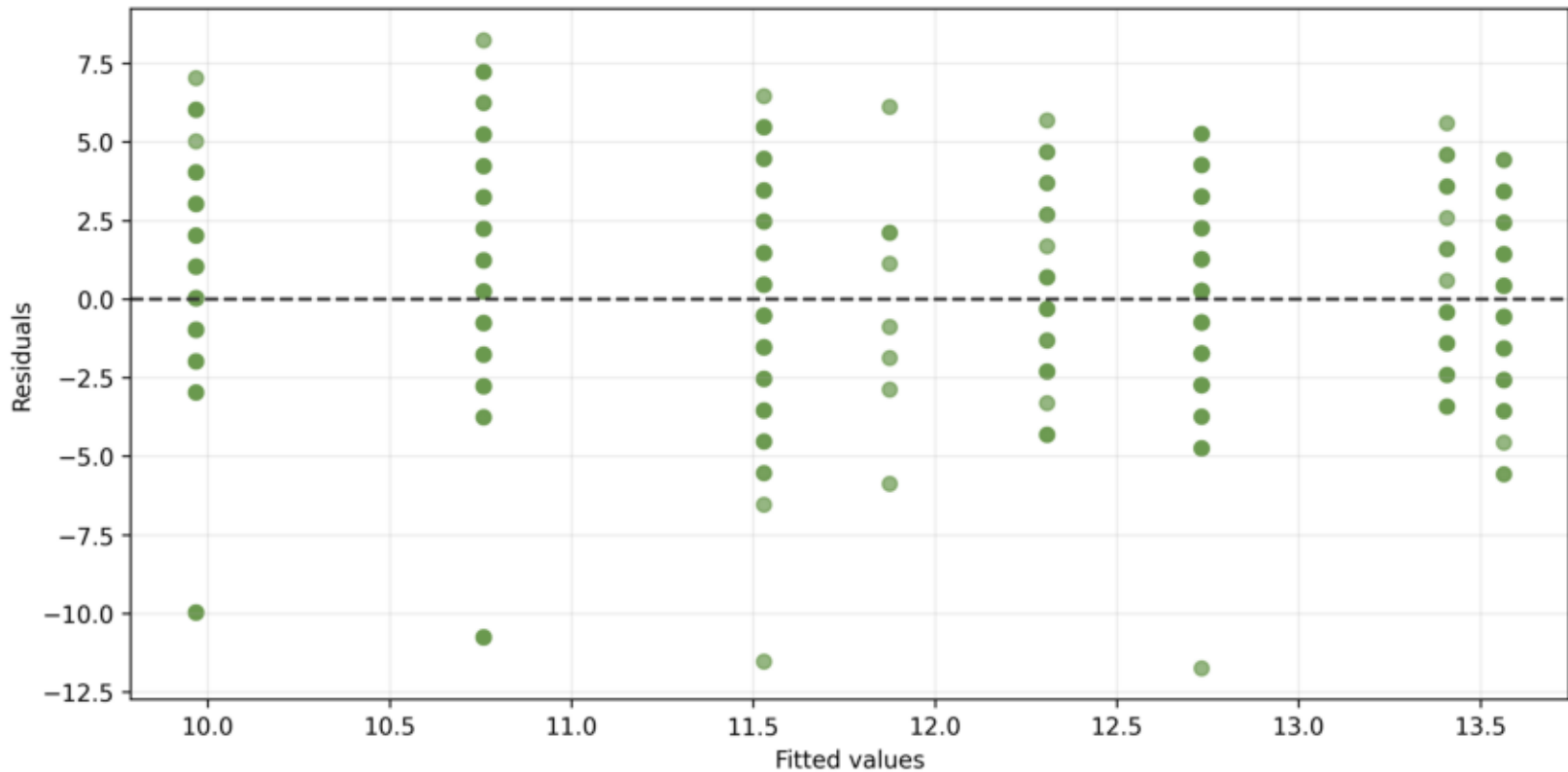
Cell Mean Pattern for Partial Eta Squared Context

Cell means compare G3 across studytime and school.



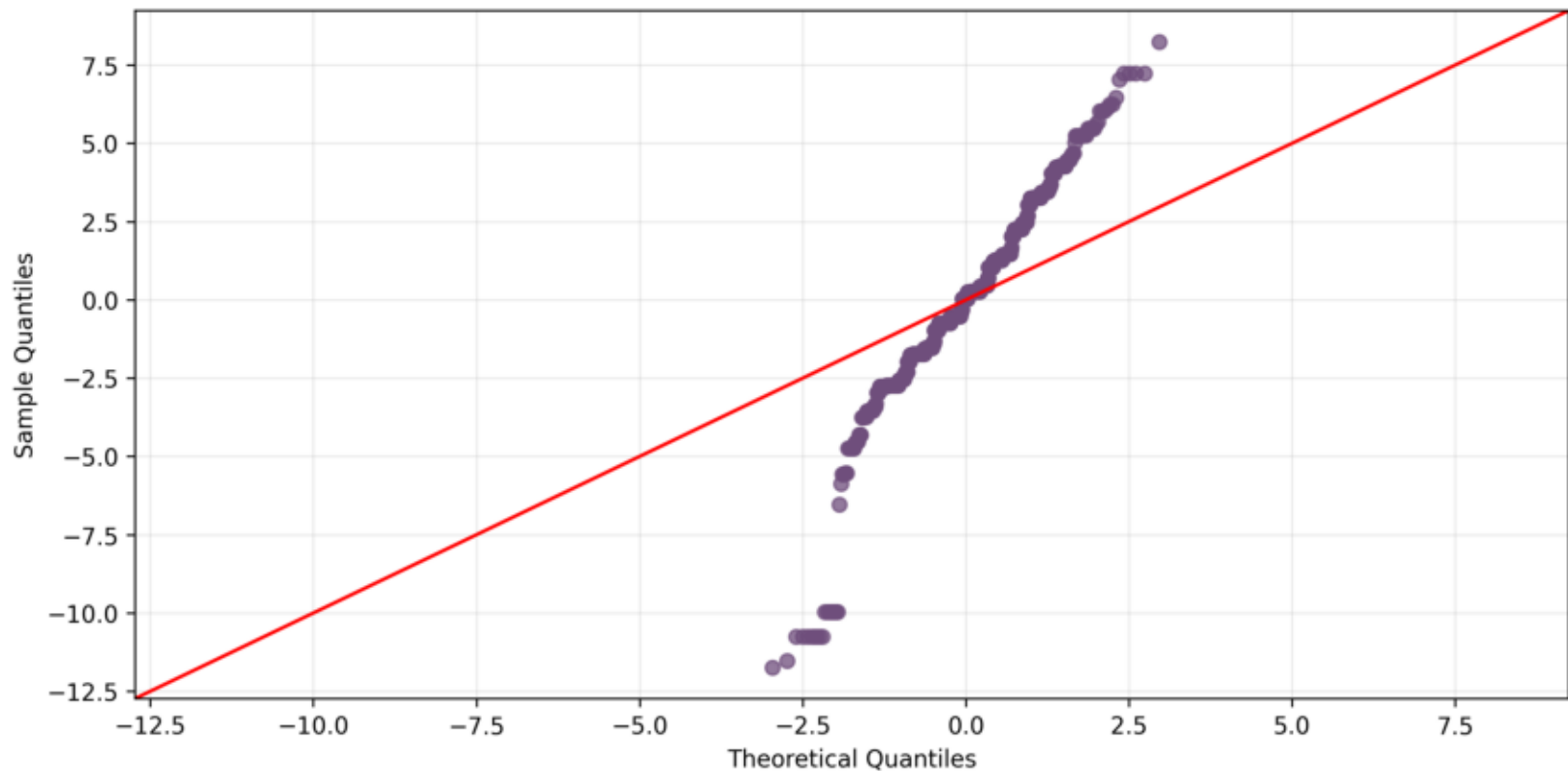
Residuals vs Fitted Values

A random pattern around zero supports the ANOVA model interpretation.



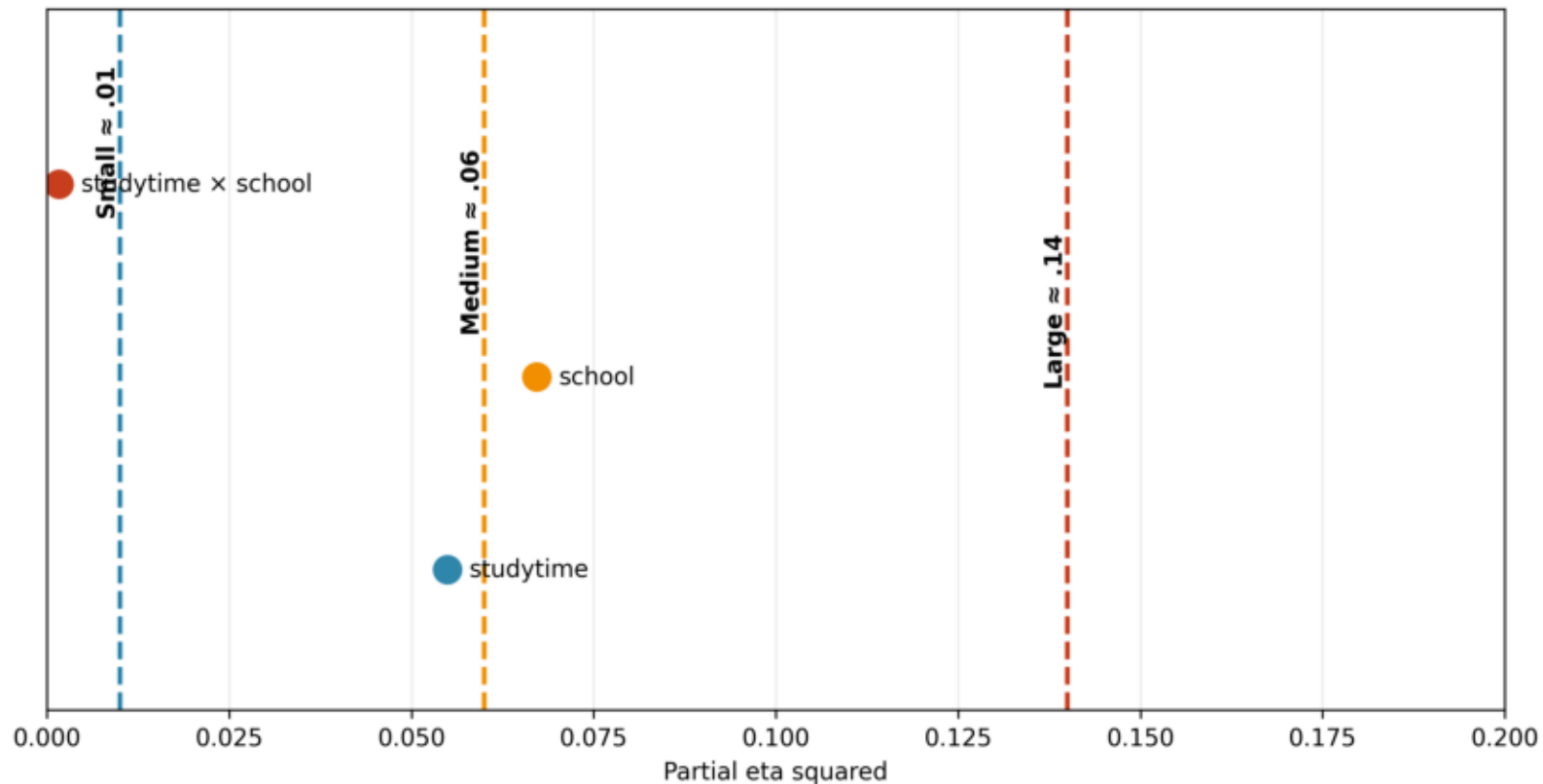
Q-Q Plot of ANOVA Residuals

Points close to the reference line support approximate normality of residuals.



Partial Eta Squared Interpretation Bands

Rules of thumb: .01 small, .06 medium, .14 large; interpret with study context.



ANOVA Table with Partial Eta Squared

Partial eta squared is calculated as SS_{effect} divided by SS_{effect} plus SS_{error} .

Effect	df	SS	F	p	Partial eta ²	Label
studytime	3	341.2	12.43	6.557e-08	0.05498	Small
school	1	422.8	46.2	2.445e-11	0.06723	Medium
studytime x school	3	9.982	0.3636	0.7793	0.001699	Very small