

# 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: studytime

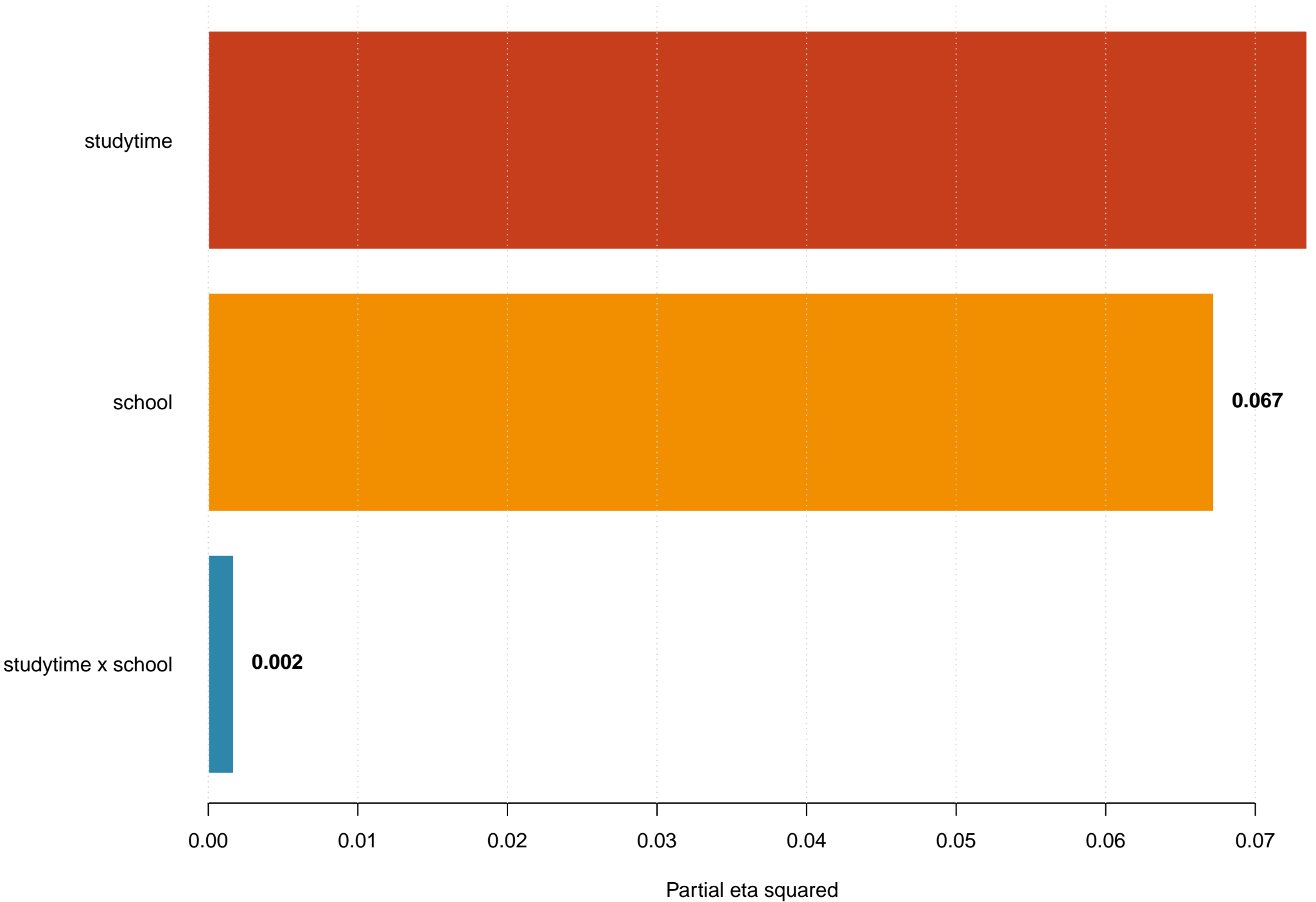
Partial eta squared: 0.073466

Effect-size label: Medium

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

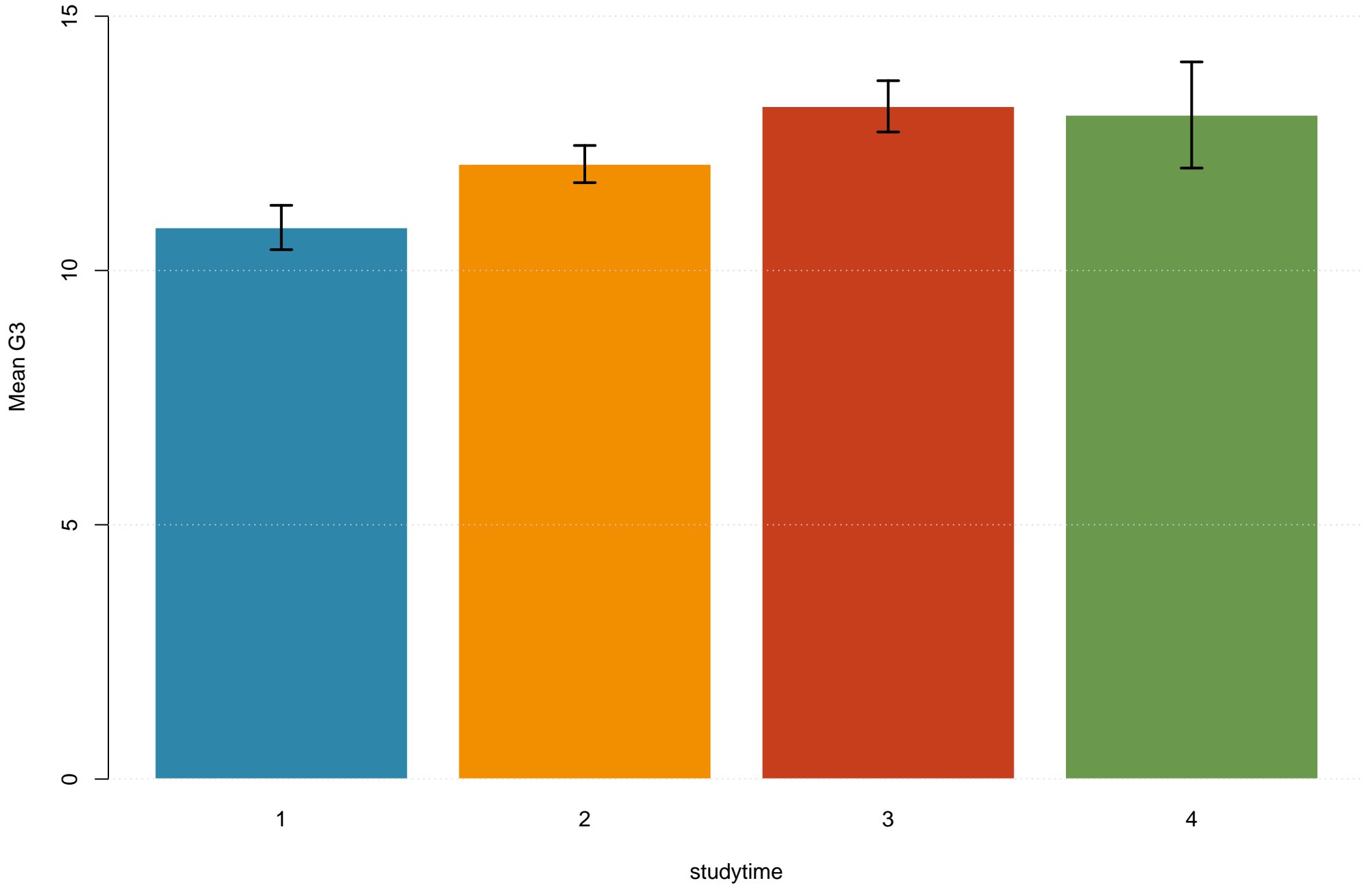
# Partial Eta Squared by ANOVA Effect

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



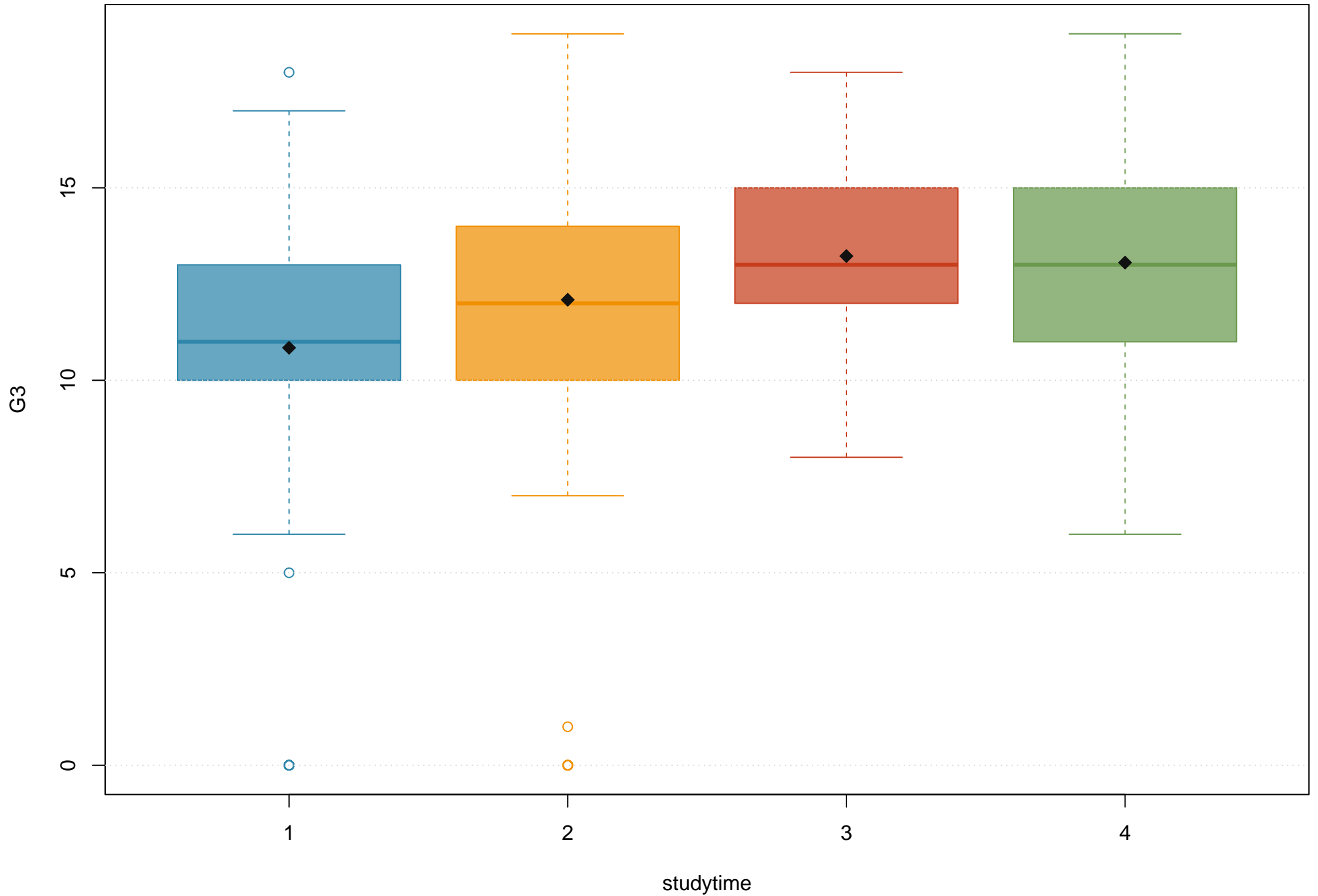
# Mean G3 by studytime

Bars show group means with 95% confidence intervals.



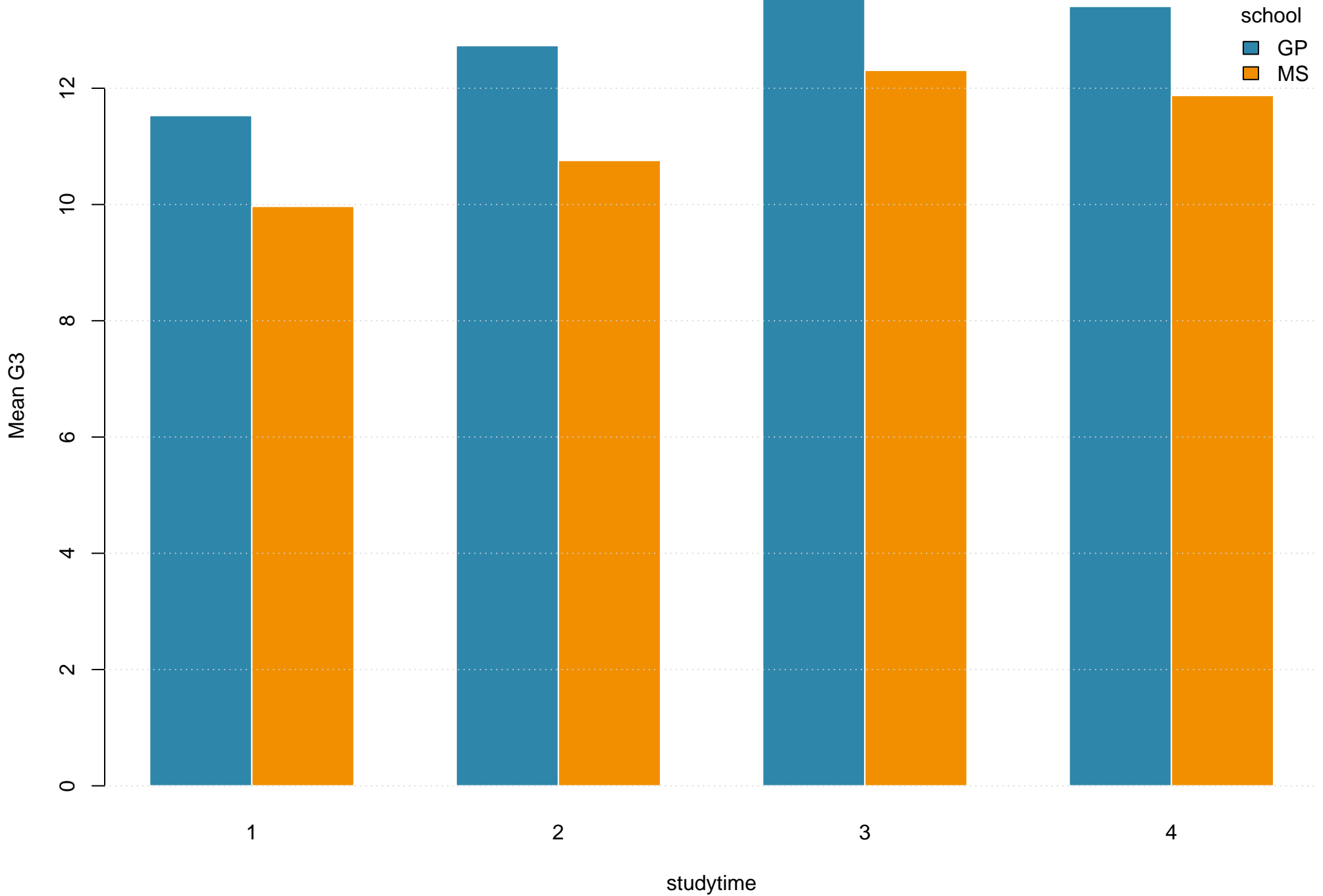
# Distribution of G3 by studytime

Colorful boxplots show spread, median, mean marker, and possible outliers.



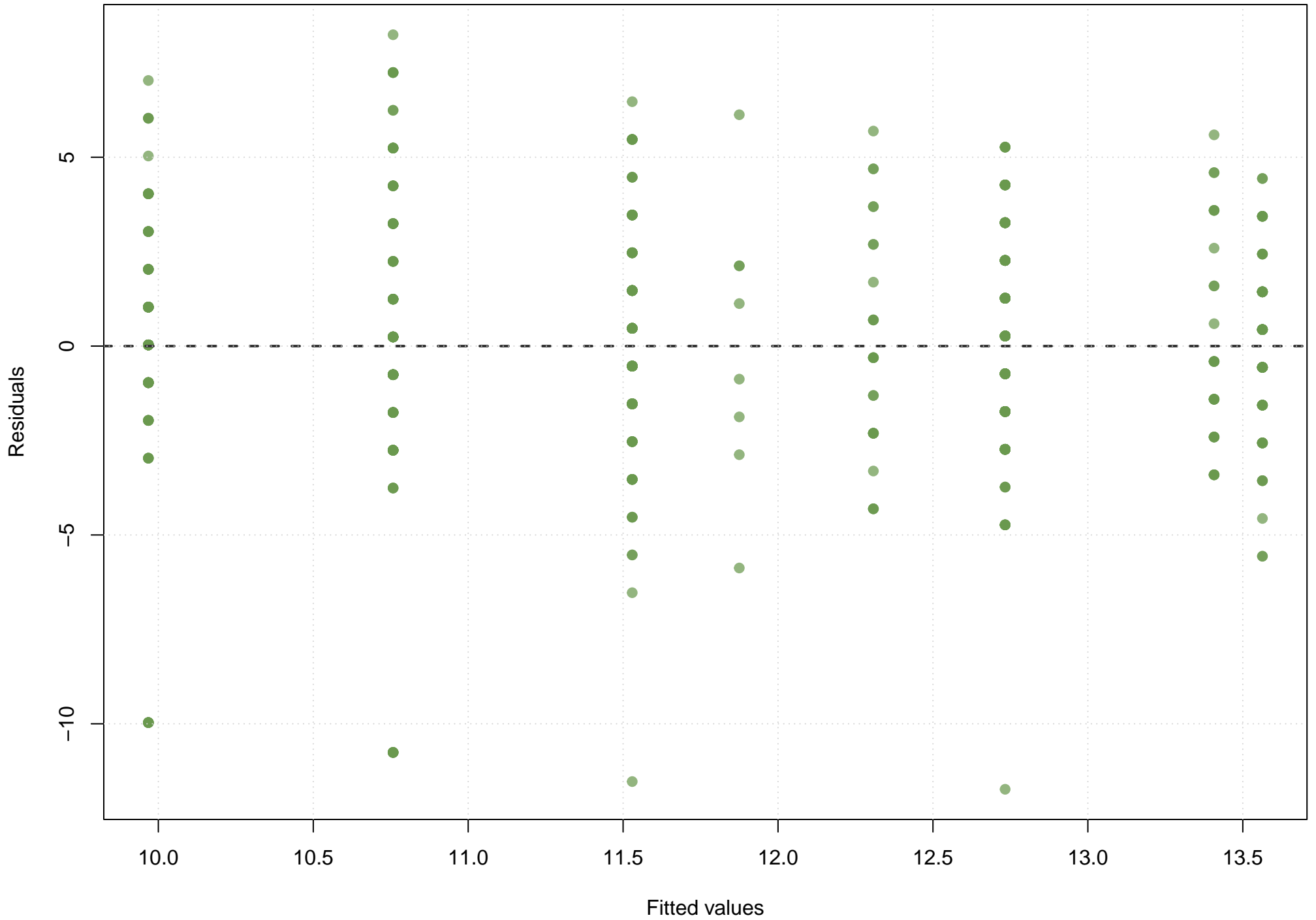
# Cell Mean Pattern for Partial Eta Squared Context

Cell means compare G3 across studytime and school .



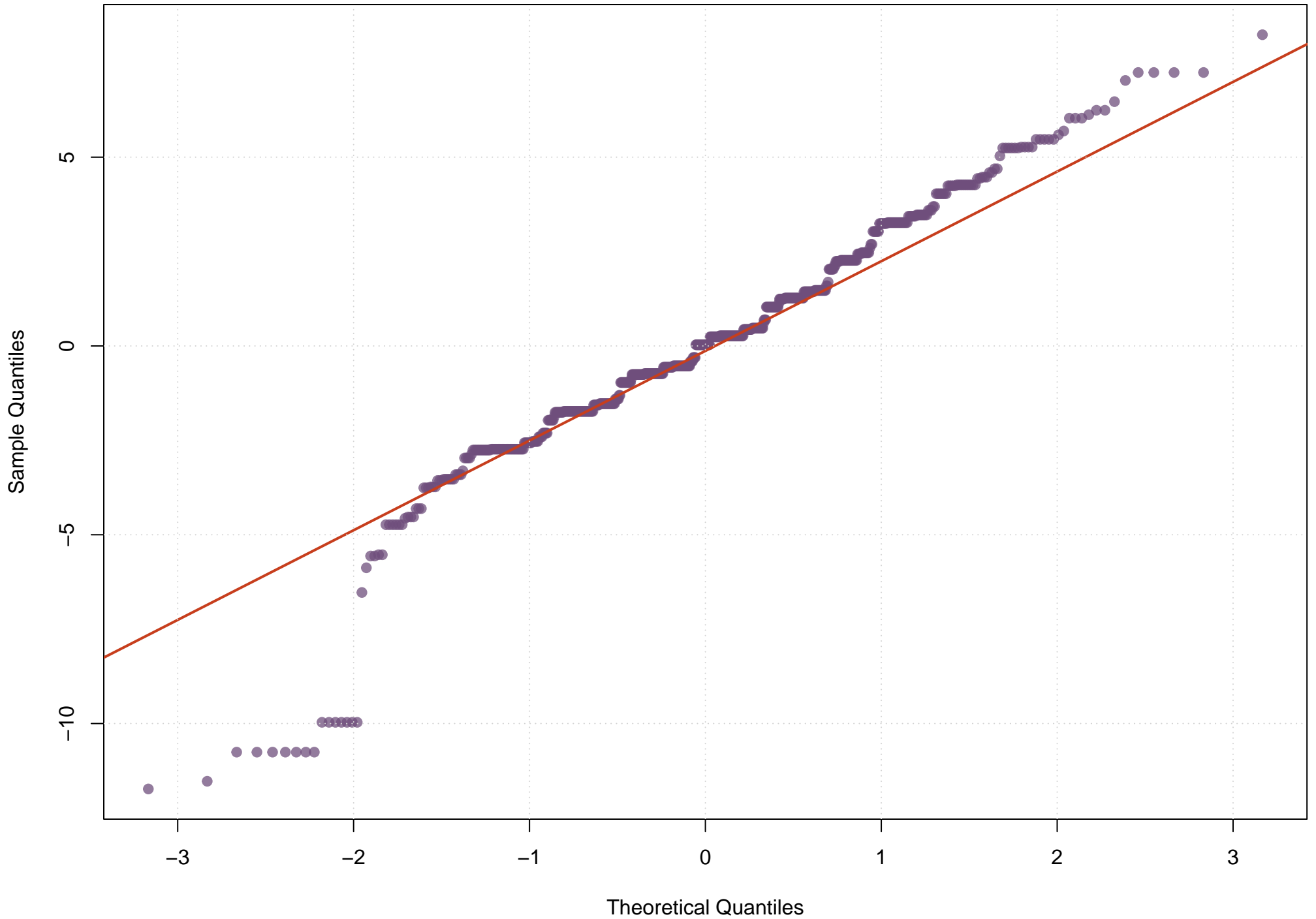
# Residuals vs Fitted Values

A random pattern around zero supports the ANOVA model interpretation.



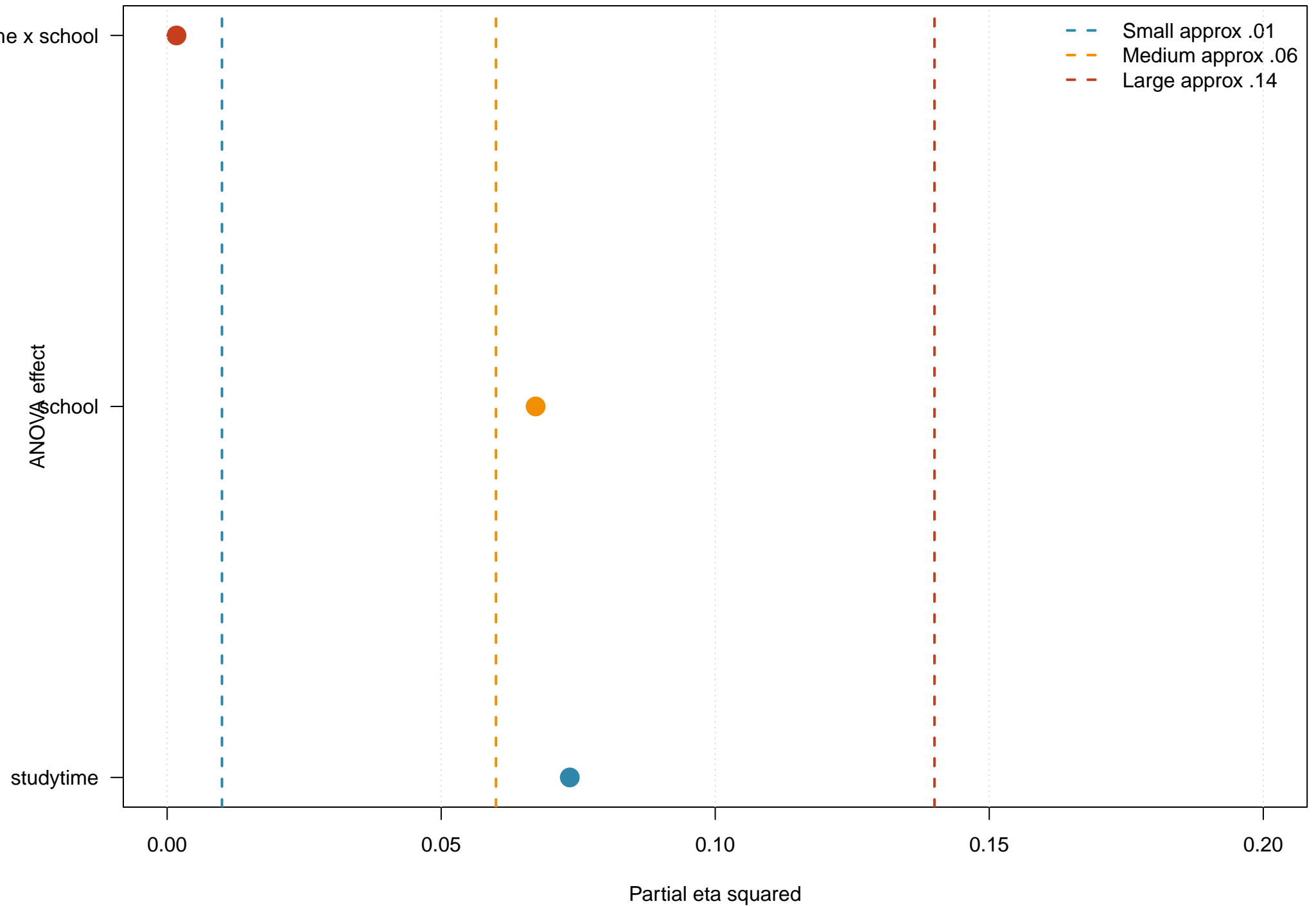
# Q-Q Plot of ANOVA Residuals

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



# Partial Eta Squared Interpretation Bands

Rules of thumb are visual guides; report results with research context.



# ANOVA Table with Partial Eta Squared

Formula:  $SS_{\text{effect}} / (SS_{\text{effect}} + SS_{\text{error}})$ .

	Effect	df	SS	F	p	Partial eta squared
	studytime	3	465.1	16.94	1.337e-10	0.0735
	school	1	422.8	46.2	2.445e-11	0.0672
	studytime x school	3	9.982	0.3636	0.7793	0.0017
Label						
Medium						
Medium						
Very small						