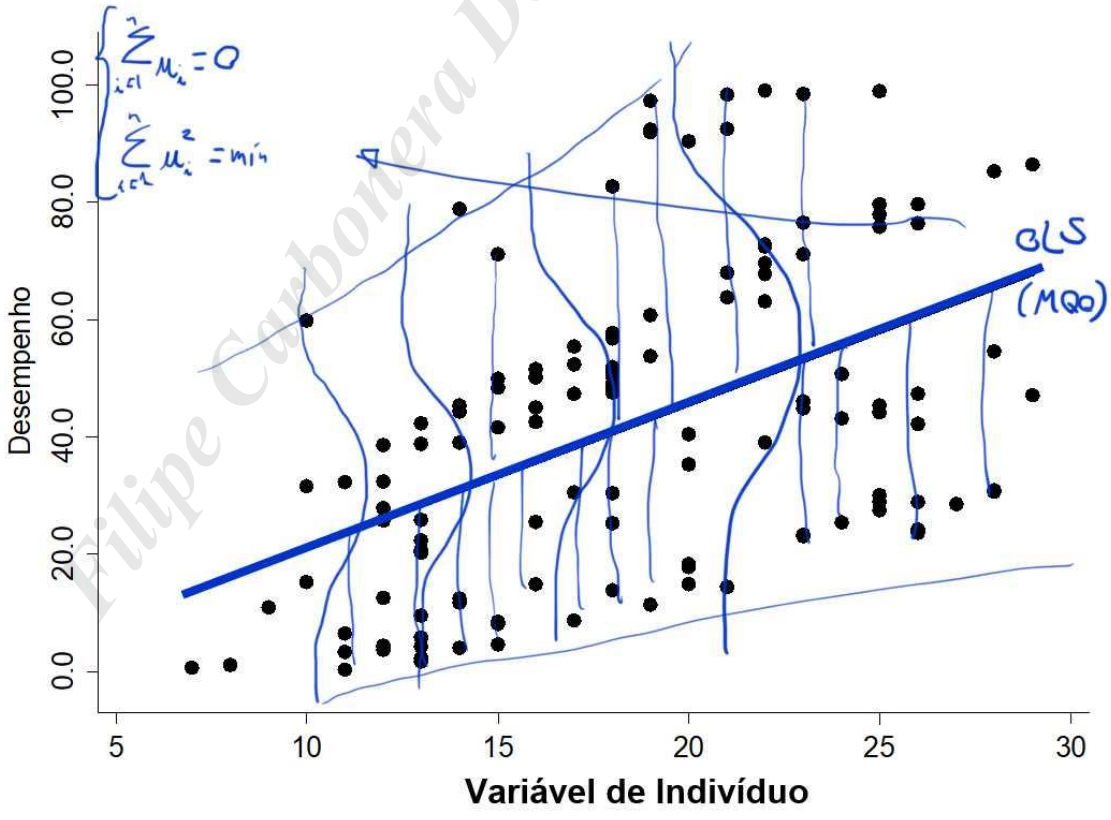
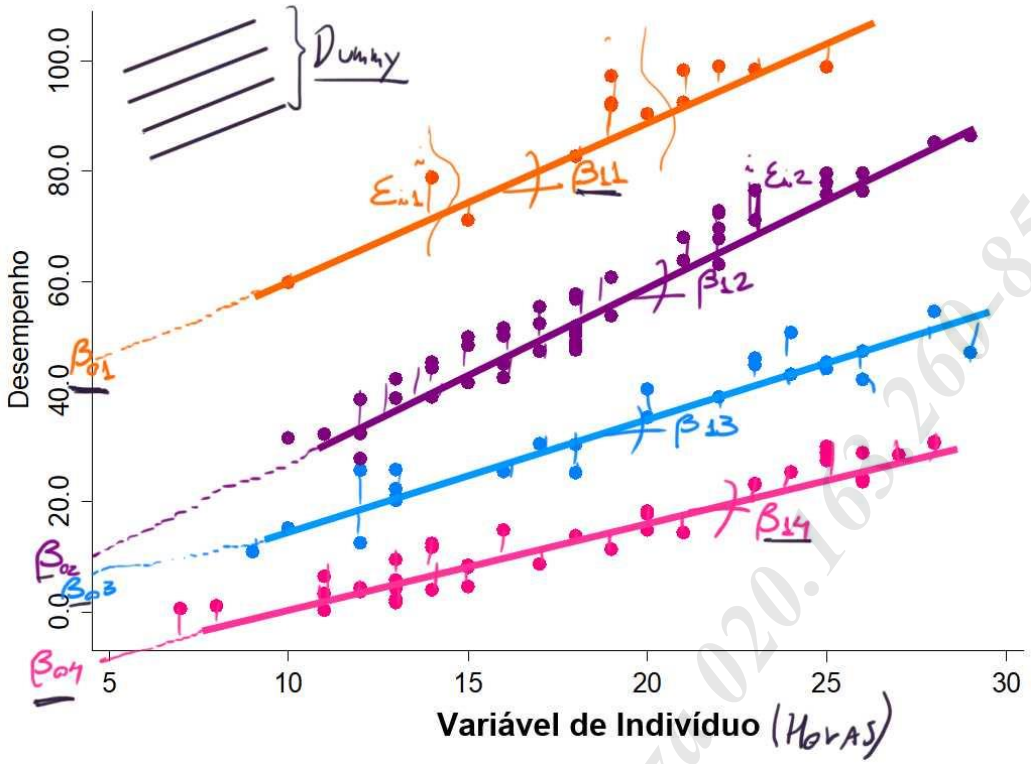
Prof. Luiz Paulo Lopes Fávero

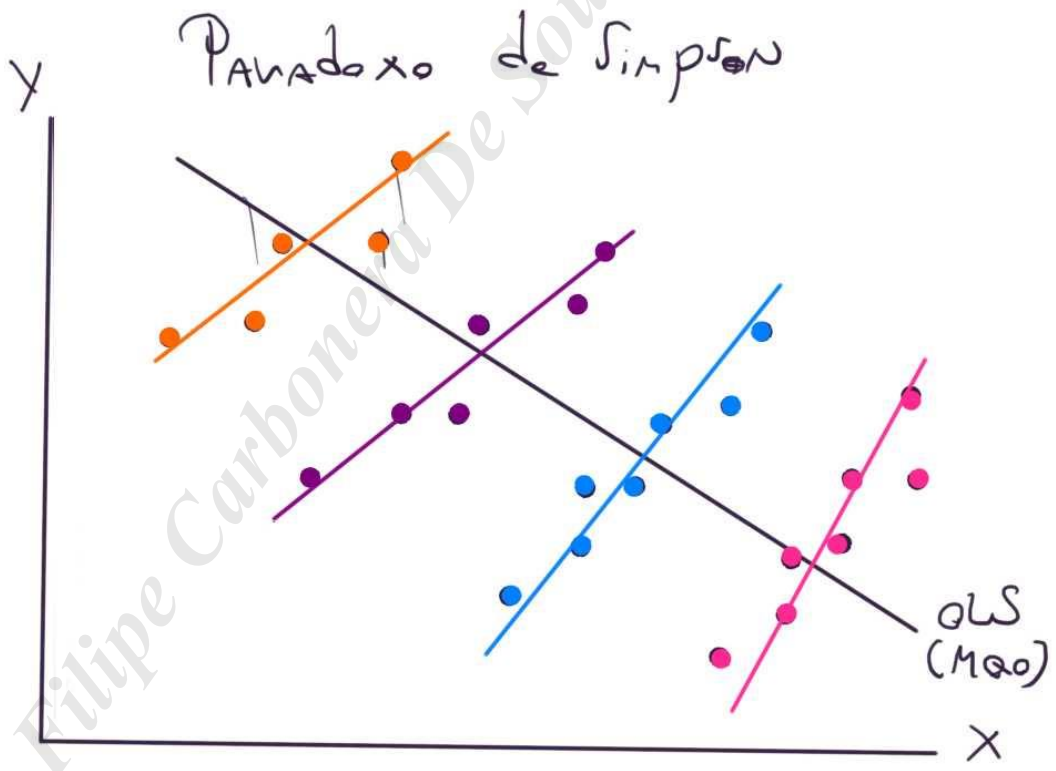
PRINTS FEITOS DURANTE A AULA DE 17/09/2024:

Modelos Lineares Generalizados Multinível (GLMM)

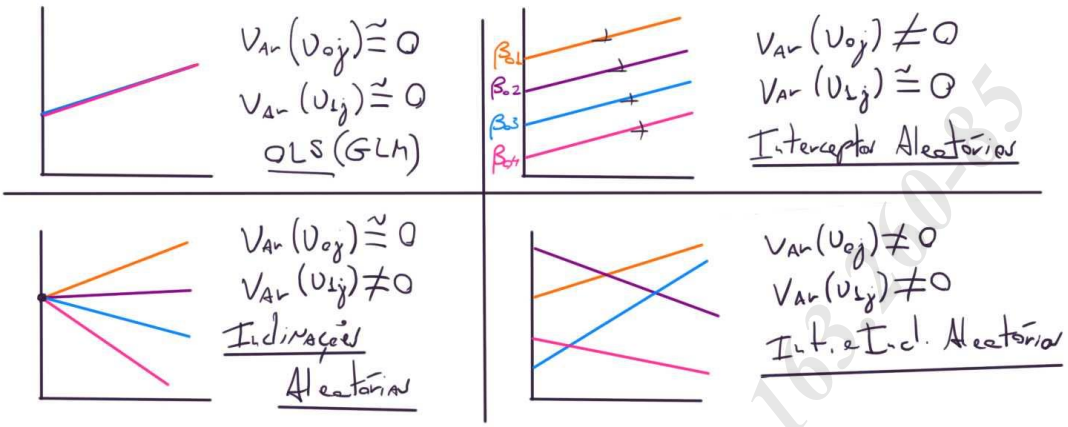
- Modelos Multinível.
- Modelos Hierárquicos.
- HLM (Hierarchical Linear Models)
- Mixed Models.
- GLLAMM (Generalized Linear and Latent Multilevel Models)
- Nested Models (Aninhados)
- Modelos Contextuais.
- RCM (Random Coefficient Models)

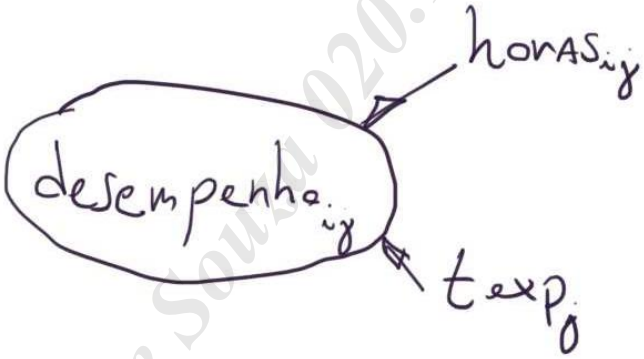


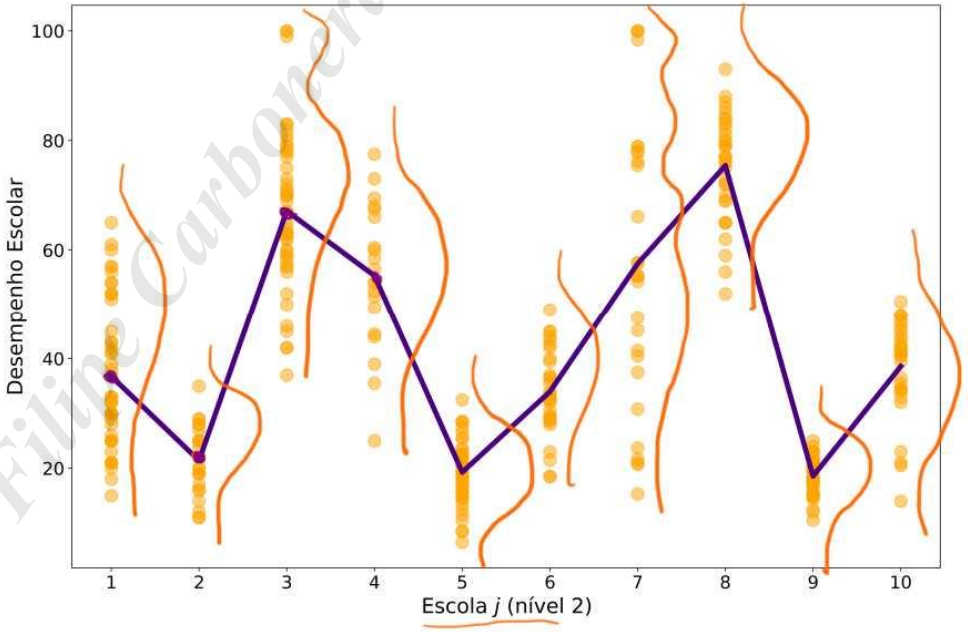




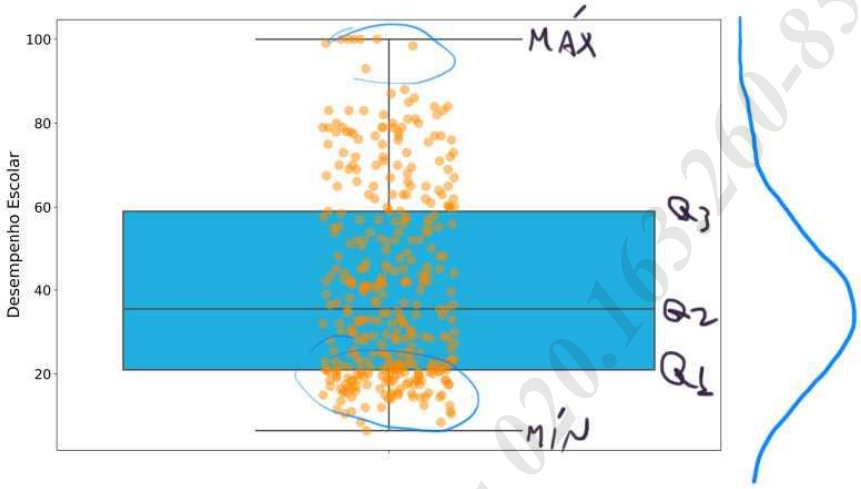
$$Y_{ij} = \underbrace{\gamma_{00} + \gamma_{10}.X_{ij} + \gamma_{01}.W_j + \gamma_{11}.W_j.X_{ij}}_{\text{Efeitos Fixos}} + \underbrace{\nu_{0j} + \nu_{1j}.X_{ij}}_{\text{Efeitos Aleatórios}} + \varepsilon_{ij}$$







Box Plot



Step-up Strategy:

- Modelo Nulo (V_{0j})
- Modelo Int. e Incl. Aleatórias (V_{1j})
- Modelo Completo (X, W)

Efeitos Fixos.

Mixed Linear Model Regression Results

Model:	MixedLM	Dependent Variable:	desempenho			
No. Observations:	358	Method:	REML			
No. Groups:	10	Scale:	142.9242			
Min. group size:	20	Log-Likelihood:	-1416.0074			
Max. group size:	48	Converged:	Yes			
Mean group size:	35.8					

	Coef.	Std.Err.	z	P>|z|	[0.025	0.975]
Intercept	42.387	6.468	6.553	0.000	29.709	55.065
escola Var	414.067	16.695				

EF. γ_{00} — $Var(v_{0j})$ — $Var(\varepsilon_{ij})$ = 142.9242

$$desempenho_{ij} = 42{,}387 + v_{0j} + \varepsilon_{ij}$$

ICC (intraclass correlation) (escola)

$$\frac{414{,}067}{414{,}067 + 142{,}9242} = 74{,}34\%$$

efeito escola