

Stat 414 - Day 9 output

```
nullmodel = lmer(langPOST ~ 1 + (1|schoolnr), data = neth, REML = FALSE)
#using ML to better match the output in the text
summary(nullmodel)
Linear mixed model fit by maximum likelihood ['lmerMod']
Formula: langPOST ~ 1 + (1 | schoolnr)
Data: neth
```

AIC	BIC	logLik	-2*log(L)	df.resid
26601	26620	-13298	26595	3755

Scaled residuals:

Min	1Q	Median	3Q	Max
-4.185	-0.642	0.091	0.723	2.528

Random effects:

Groups	Name	Variance	Std.Dev.
schoolnr	(Intercept)	18.1	4.26
	Residual	62.9	7.93

Number of obs: 3758, groups: schoolnr, 211

Fixed effects:

	Estimate	Std. Error	t value
(Intercept)	41.005	0.325	126

```
performance::icc(nullmodel)
# Intraclass Correlation Coefficient
```

Adjusted ICC: 0.224
Unadjusted ICC: 0.224

```
> as.data.frame(ranef(nullmodel, condVar = TRUE))
  grpvar      term grp  condval  condsd
1 schoolnr (Intercept)  1 -4.04369268 1.485864
2 schoolnr (Intercept)  2 -11.56253441 2.450366
3 schoolnr (Intercept)  3 -0.78800727 2.341091
4 schoolnr (Intercept)  9  3.38340441 2.084281
5 schoolnr (Intercept) 10 -6.26185060 2.724422
6 schoolnr (Intercept) 12 -7.91433487 1.796794
7 schoolnr (Intercept) 13  4.06100636 1.896871
8 schoolnr (Intercept) 14 -3.06919966 1.602724
9 schoolnr (Intercept) 15 -7.06656609 2.341091
10 schoolnr (Intercept) 16  0.34562141 2.341091
```

```
> head(fitted.values(nullmodel))
      1      2      3      4      5      6
36.96088 36.96088 36.96088 36.96088 36.96088 36.96088
```

```
modell1 = lmer(langPOST ~ 1 + IQ_verb + (1|schoolnr), data = neth, REML=F)
```

Random effects:

Groups	Name	Variance	Std.Dev.
schoolnr	(Intercept)	9.845	3.138
	Residual	40.469	6.362

Number of obs: 3758, groups: schoolnr, 211

Fixed effects:

	Estimate	Std. Error	t value
(Intercept)	41.05488	0.24339	168.68
IQ_verb	2.50744	0.05438	46.11

Correlation of Fixed Effects:

(Intr)

IQ_verb 0.003

```
> confint(modell1)
```

Computing profile confidence intervals ...

	2.5 %	97.5 %
.sig01	2.775416	3.552533
.sigma	6.216172	6.512614
(Intercept)	40.573425	41.532788
IQ_verb	2.400448	2.614480