Additional Supplementary Material: Pilot Study 2 GLMM Random Effect Structure Selection

Table 1: *Random Effects Model Comparison for Intelligibility Scores (LI)*

| Sample size | Total observations = 1920 |
| | Subjects = 40; Items = 48 |

Selection process	Model No.	Random effects		Model fit			Singular ?	LRT test			
		Subject	Items	AIC	BIC	logLik		Reference model	df	χ^2	*p*
1. Building a maximal model											
	1	(1 | sub)	(1 + Accent + Caption + L1 + Accent:Caption + Accent:L1 | item)	1652.4	1813.6	-797.2	Yes	-	-	-	-
2. Building a ZCP model											
	2	(1 | sub)	(1 + Accent + Caption + L1 + Accent:Caption + Accent:L1 || item)	1639.2	1717	-805.6	Yes	-	-	-	-
3. Simplifying the ZCP model with LRT											
	3	(1 | sub)	(1 + Caption + L1 + Accent:Caption + Accent:L1 || item)	1637.2	1709.4	-805.6	No	-	-	-	-
	4	(1 | sub)	(1 + Caption + L1 + Accent:L1 || item)	1635.2	1701.9	-805.6	No	3	1	0.00	.945
	5	(1 | sub)	(1 + L1 + Accent:L1 || item)	1633.9	1695.1	-806	No	4	1	0.75	.386
	6	(1 | sub)	(1 + L1 || item)	1632.8	1688.4	-806.4	No	5	1	0.85	.356
	7	(1 | sub)	(1 | item)	1641.5	1691.6	-811.8	No	6	1	10.77	.001
4. Comparing the selected model in LRT process with the model with correlation parameters											
	8	(1 | sub)	(1 + L1 | item)	1634	1695.2	-806.02	No	7	1	0.73	.394