

Supplemental Material

CBE—Life Sciences Education

de Lima and Long

Table S1. Number of responses that contain each of the six Key Concepts and three Naïve Ideas pre and post instruction.

		Pre instruction		Post instruction	
		Cheetah	Human	Cheetah	Human
Key Concepts	Variation	53	52	70	80
	Heritability	33	24	48	46
	Competition	3	2	7	2
	Limited Resources	99	38	101	46
	Differential Survival/ Reproduction	87	80	106	101
	Non-Adaptive Idea	0	0	3	11
Naïve Ideas	Adapt / Acclimation	23	24	12	2
	Need / Goal	41	43	25	25
	Use / Disuse	5	10	1	10

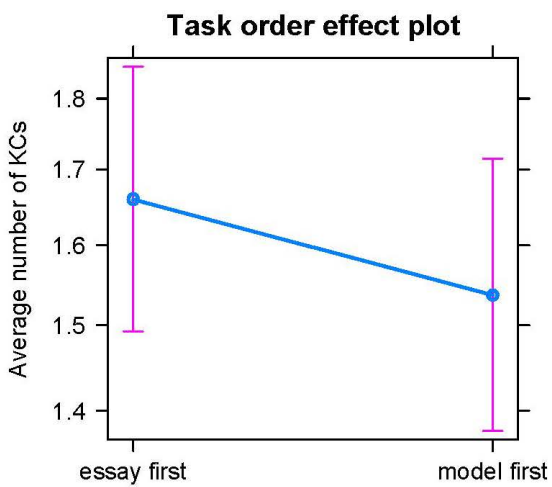
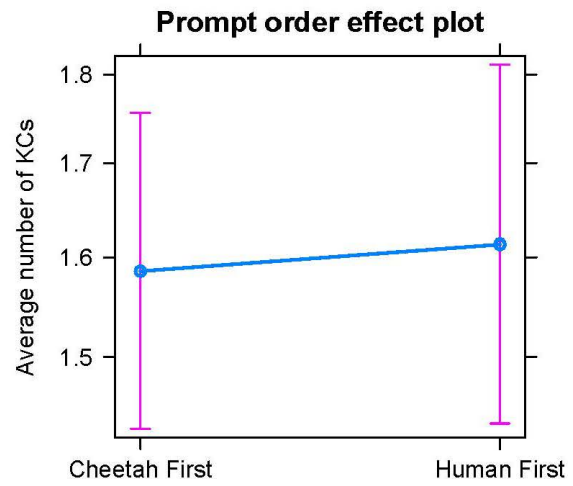
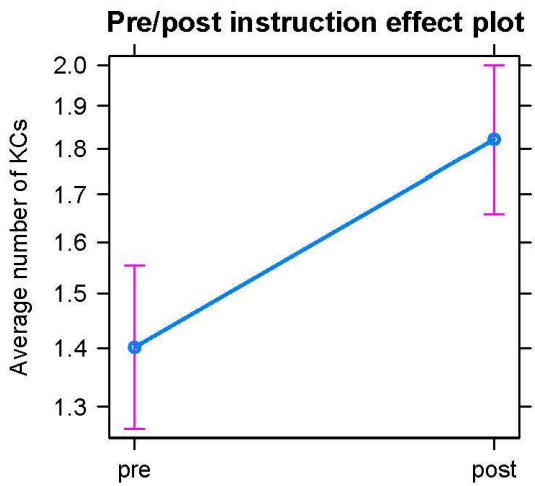
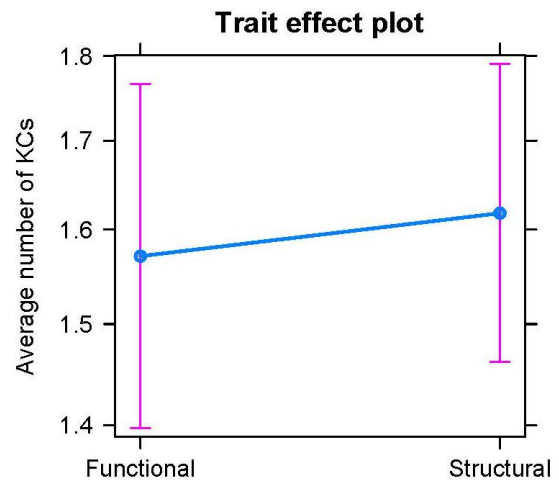
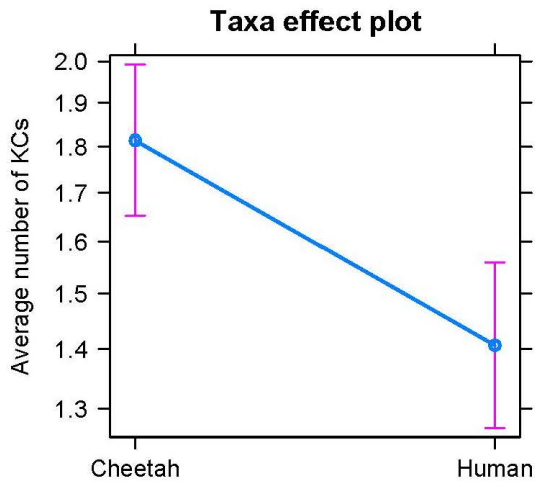


Figure S1. Plots showing the effects of taxon, trait type, prompt order, and pre/post instruction on the average number of KCs determined using a mixed-effects Poisson regression.

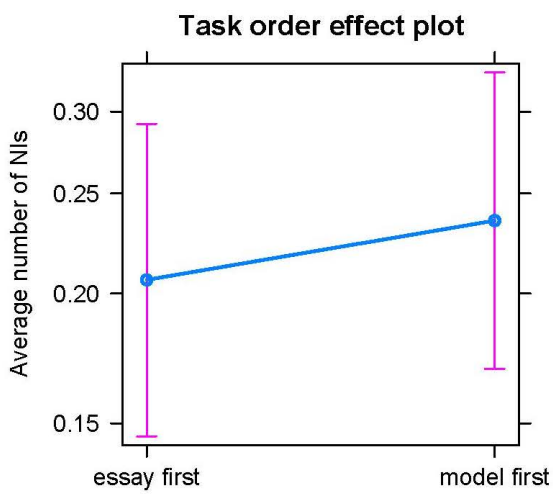
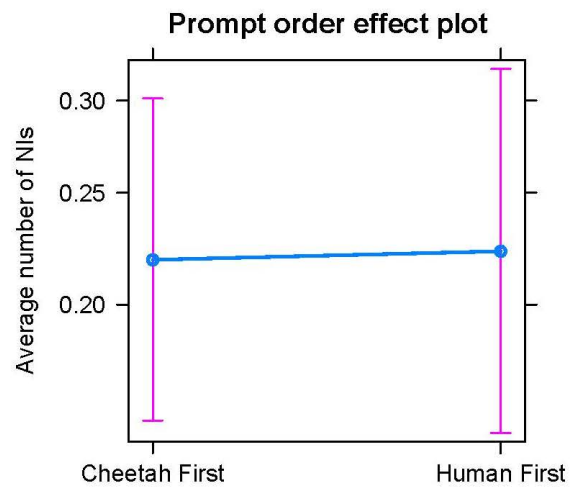
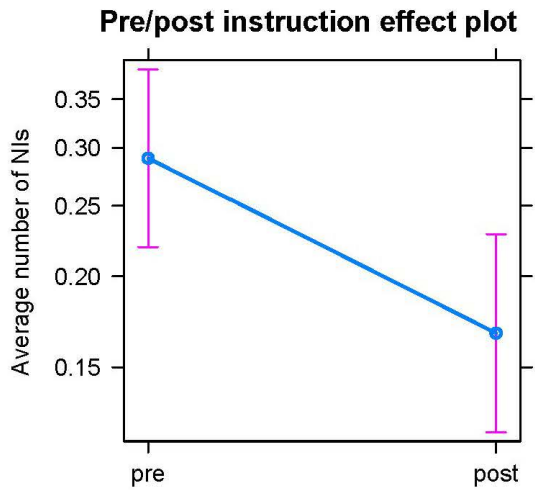
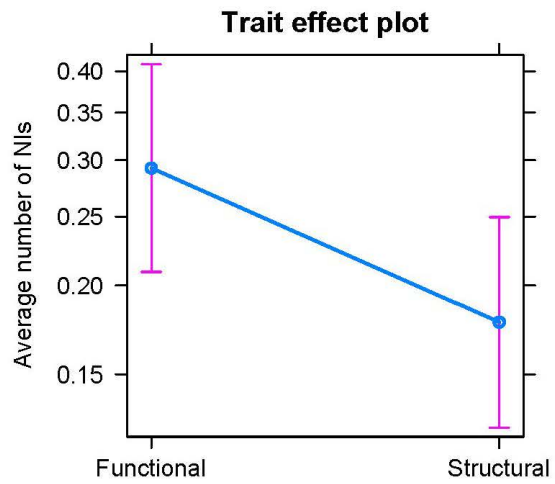
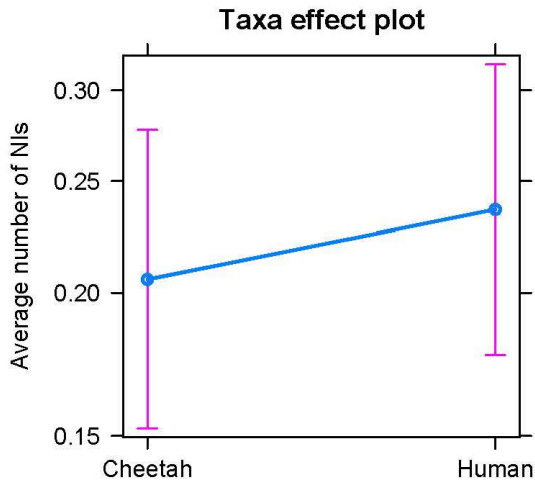


Figure S2. Plots showing the effects of taxon, trait type, prompt order, and pre/post instruction on the average number of NIs determined using a mixed-effects Poisson regression.

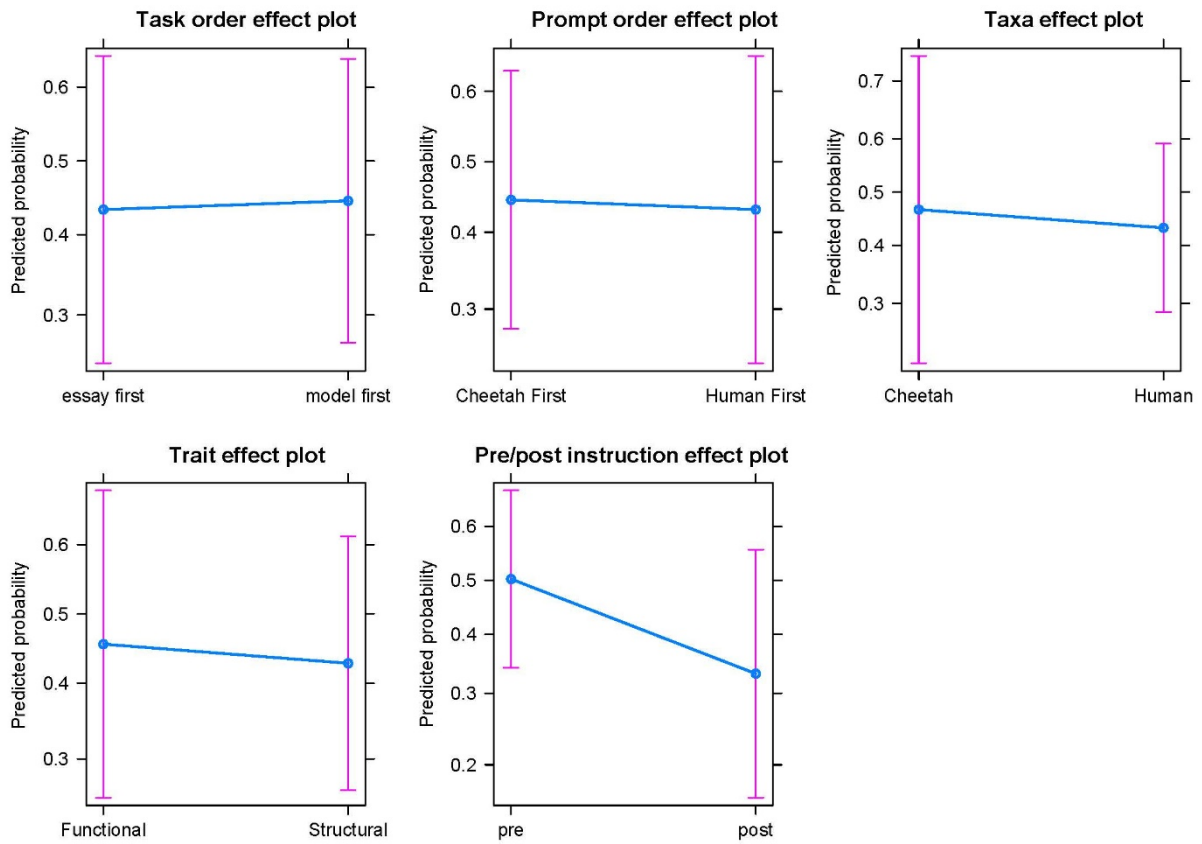


Figure S3. Predicted probabilities of being in the NI only group vs None group for each of the predictors in the multiple logistic regression model.

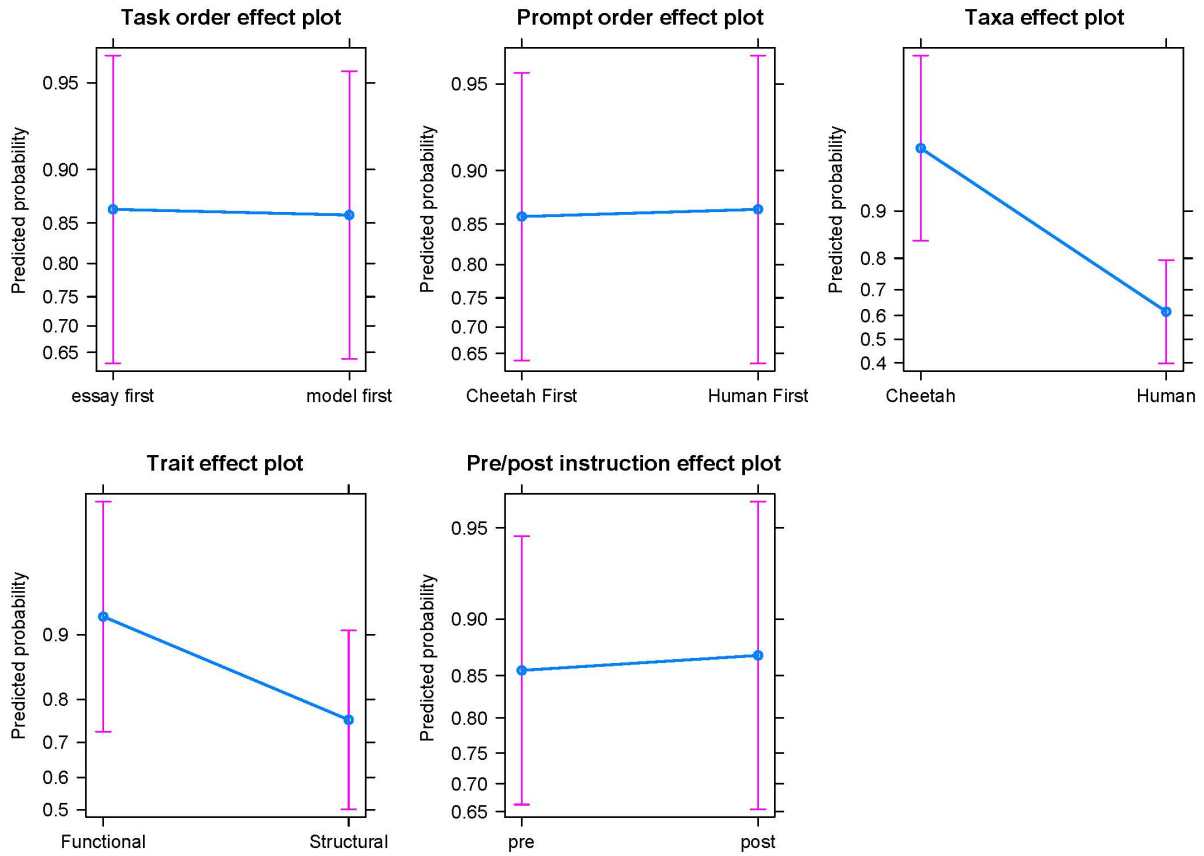


Figure S4. Predicted probabilities of being in the Mixed group vs None group for each of the predictors in the multiple logistic regression model.

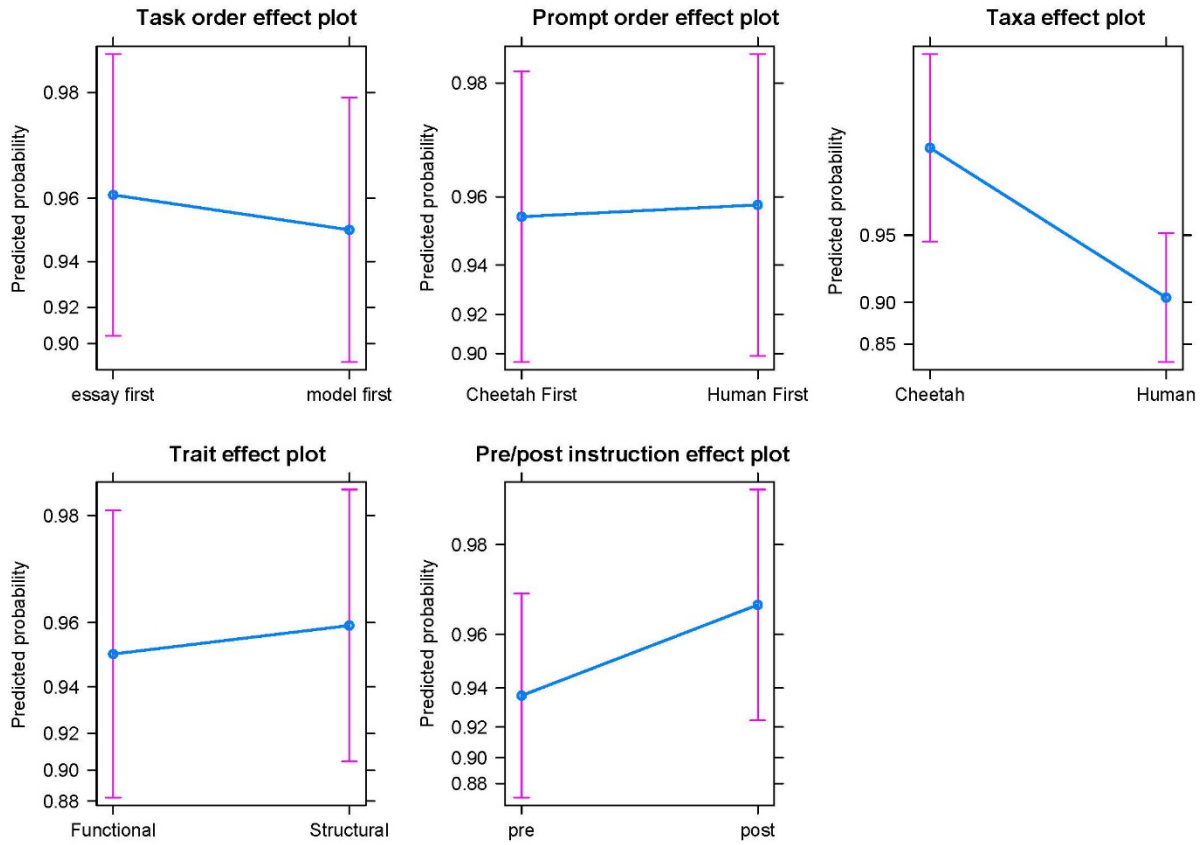


Figure S5. Predicted probabilities of being in the KC only group vs None group for each of the predictors in the multiple logistic regression model.

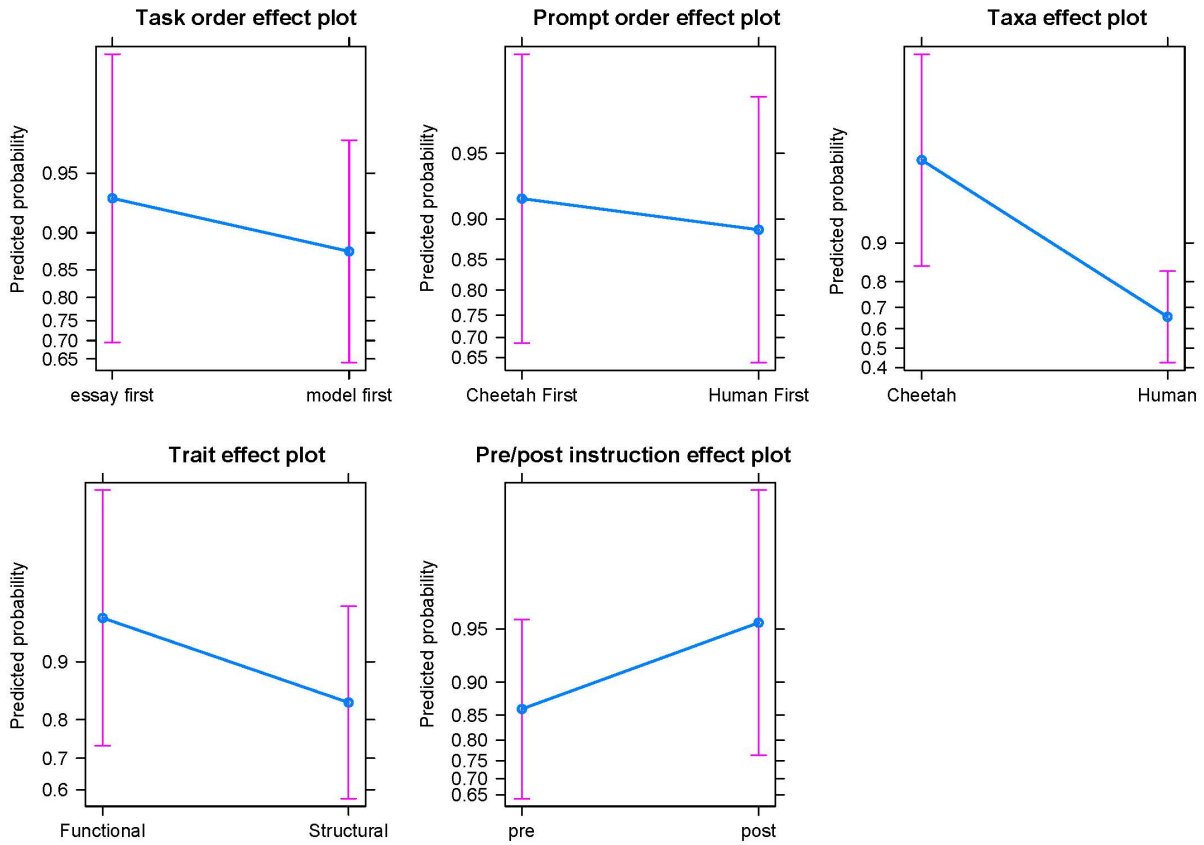


Figure S6. Predicted probabilities of being in the Mixed group vs NI only group for each of the predictors in the multiple logistic regression model.

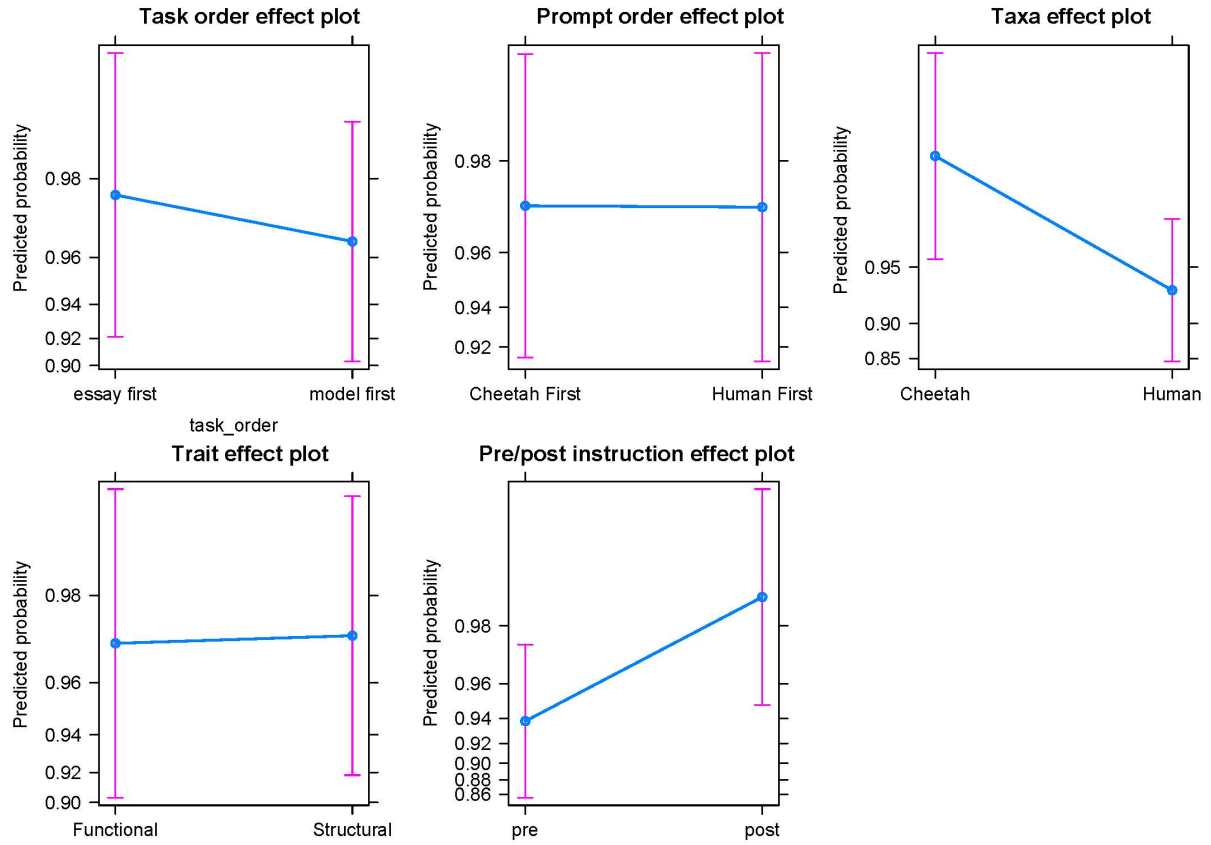


Figure S7. Predicted probabilities of being in the KC only group vs NI only group for each of the predictors in the multiple logistic regression model.

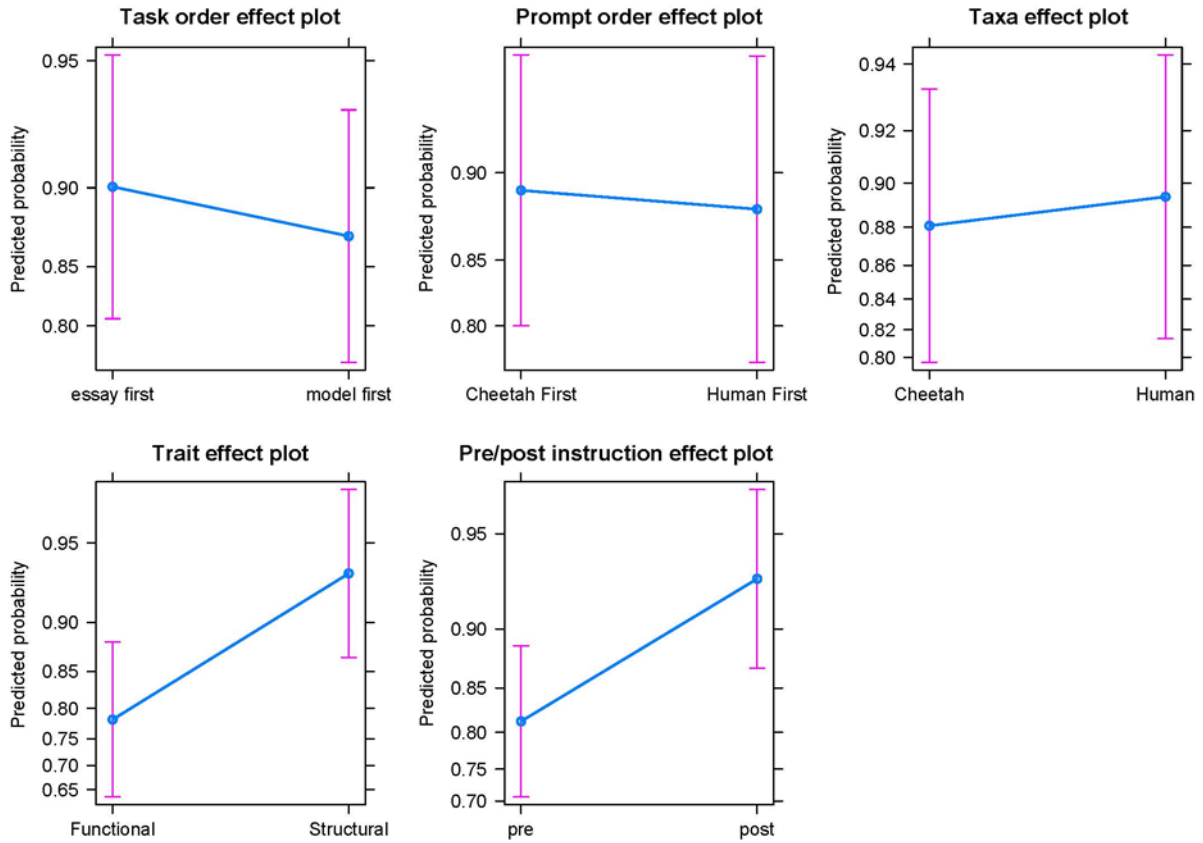


Figure S8. Predicted probabilities of being in the KC only group vs Mixed group for each of the predictors in the multiple logistic regression model.