

1 Summaries of Parametric Statistics Analysis- for the gains in skill/knowledge estimates in the pilot empirical study

Table 1: Summary of two-way ANOVA results for the gains in skill/knowledge estimates in the pilot empirical study

	Sum Sq	Df	F value	Pr(>F)	Sig
Type.(Intercept)	126.330	1	35.770	0.000	
Type.Type	3.087	1	0.874	0.363	
Type.CLRole	42.192	1	11.947	0.003	**
Type.Type:CLRole	0.427	1	0.121	0.732	
Type.Residuals	60.040	17			

Signif. codes: 0 ‘***’ 0.01 ‘**’ 0.05

Table 2: Descriptive statistics and Tukey post-hoc test results for the gains in skill/knowledge estimates in the pilot empirical study

	N	mean	lsmean	SE	df	lwr.CI	upr.CI	t.ratio	p.value	p.adj	g	sig	mag
Type.non-gamified	8	2.535	2.196	0.686	17	0.749	3.644						
Type.ont-gamified	13	3.392	3.010	0.536	17	1.880	4.140						
Type.non-gamified - ont-gamified	21	-0.858	-0.814	0.871		-2.639	0.924	-0.935	0.363	0.324	-0.346		
Type.non-gamified.Apprentice	5	3.550	3.550	0.840	17	1.776	5.323						
Type.ont-gamified.Apprentice	8	4.666	4.666	0.664	17	3.264	6.068						
Type.non-gamified.Apprentice - ont-gamified.Apprentice	13	-1.116	-1.116	1.071		-4.162	1.929	-1.042	0.312	0.728	-0.740		
Type.non-gamified.Master	3	0.843	0.843	1.085	17	-1.446	3.132						
Type.ont-gamified.Master	5	1.355	1.355	0.840	17	-0.419	3.128						
Type.non-gamified.Master - ont-gamified.Master	8	-0.511	-0.511	1.372		-4.413	3.390	-0.373	0.714	0.982	-0.176		

Signif. codes: 0 ‘***’ 0.01 ‘*’ 0.05