

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

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

	Sum Sq	Df	F value	Pr(>F)	Sig
Type.(Intercept)	115.827	1	20.453	0.000	
Type.Type	23.100	1	4.079	0.056	
Type.CLRole	126.129	1	22.272	0.000	**
Type.Type:CLRole	1.544	1	0.273	0.607	
Type.Residuals	124.588	22			

Signif. codes: 0 “***” 0.01 “*” 0.05

Table 2: Descriptive statistics and Tukey post-hoc test results for the gains in skills/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	14	5.073	3.480	0.775	22	1.872	5.087						
Type.ont-gamified	12	2.075	1.331	0.729	22	-0.180	2.842						
Type.non-gamified - ont-gamified	26	2.997	2.148	1.064		1.056	4.939	2.020	0.056	0.004	0.898	**	large
Type.non-gamified.Apprentice	11	6.267	6.267	0.718	22	4.779	7.755						
Type.ont-gamified.Apprentice	8	3.564	3.564	0.841	22	1.819	5.308						
Type.non-gamified.Apprentice - ont-gamified.Apprentice	19	2.704	2.704	1.106		-0.367	5.774	2.445	0.023	0.098	1.053		
Type.non-gamified.Master	3	0.692	0.692	1.374	22	-2.158	3.541						
Type.ont-gamified.Master	4	-0.901	-0.901	1.190	22	-3.369	1.566						
Type.non-gamified.Master - ont-gamified.Master	7	1.593	1.593	1.818		-3.454	6.640	0.876	0.390	0.817	0.636		

Signif. codes: 0 ‘***’ 0.01 ‘*’ 0.05