

# 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)	147.269	1	32.624	0.000	
Type.Type	0.432	1	0.096	0.759	
Type.CLRole	48.137	1	10.664	0.003	**
Type.Type:CLRole	3.485	1	0.772	0.388	
Type.Residuals	117.368	26			

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	14	3.768	2.705	0.692	26	1.282	4.127						
Type.ont-gamified	16	2.829	2.427	0.573	26	1.249	3.604						
Type.non-gamified - ont-gamified	30	0.940	0.278	0.898		-0.659	2.538	0.309	0.759	0.238	0.376		
Type.non-gamified.Apprentice	11	4.566	4.566	0.641	26	3.249	5.883						
Type.ont-gamified.Apprentice	11	3.499	3.499	0.641	26	2.182	4.816						
Type.non-gamified.Apprentice - ont-gamified.Apprentice	22	1.067	1.067	0.906		-1.418	3.553	1.178	0.249	0.646	0.517		
Type.non-gamified.Master	3	0.843	0.843	1.227	26	-1.678	3.365						
Type.ont-gamified.Master	5	1.355	1.355	0.950	26	-0.599	3.308						
Type.non-gamified.Master - ont-gamified.Master	8	-0.511	-0.511	1.552		-4.768	3.745	-0.330	0.744	0.987	-0.176		

Signif. codes: 0 ‘\*\*\*’ 0.01 ‘\*\*’ 0.05