

Summary of parametric statistics analysis for the differences of scores in the third empirical study for signed-up students

Table 1: Summary of two-way ANOVA results for the differences of scores in the third empirical study for signed-up students

	Sum Sq	Df	F value	Pr(>F)	Sig
Type.(Intercept)	0.135	1	0.021	0.886	
Type.Type	70.102	1	10.772	0.002	**
Type.CLRole	60.426	1	9.285	0.004	**
Type.Type:CLRole	0.505	1	0.078	0.782	
Type.Residuals	292.855	45			

Signif. codes: 0 “***” 0.01 “**” 0.05

Table 2: Descriptive statistics and Tukey post-hoc test results for the differences of scores in the third empirical study for signed-up students

	N	mean	lsmean	SE	df	lwr.CI	upr.CI	t.ratio	p.value	p.adj	g	sig	mag
Type.ont-gamified	23	1.821	1.383	0.578	45	0.219	2.548						
Type.w/o-gamified	26	-0.647	-1.267	0.564	45	-2.403	-0.131						
Type.ont-gamified - w/o-gamified	49	2.468	2.650	0.808		0.997	3.939	3.282	0.002	0.002	0.885	**	large
Type.ont-gamified.Apprentice	16	2.501	2.501	0.638	45	1.217	3.786						
Type.w/o-gamified.Apprentice	19	0.076	0.076	0.585	45	-1.103	1.254						
Type.ont-gamified.Apprentice - w/o-gamified.Apprentice	35	2.426	2.426	0.866		0.116	4.735	2.802	0.007	0.036	0.892	*	large
Type.ont-gamified.Master	7	0.265	0.265	0.964	45	-1.677	2.207						
Type.w/o-gamified.Master	7	-2.610	-2.610	0.964	45	-4.552	-0.668						
Type.ont-gamified.Master - w/o-gamified.Master	14	2.875	2.875	1.364		-0.762	6.513	2.109	0.041	0.166	1.205		