

Summary of nonparametric statistics analysis for the scores of Level of Motivation in the second study for students with effective participation

Table 1: Summary of Scheirer-Ray-Hare results for the scores of Level of Motivation in the second study for students with effective participation

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	206.449	0.935	0.333	
Type:CLRole	1	0.265	0.001	0.972	
Type:Type:CLRole	1	206.977	0.938	0.333	
Type:Residuals	47	10620.809			

Signif. codes: 0 ‘***’ 0.01 ‘**’ 0.05

Table 2: Full descriptive statistic of the pair wilcoxon analysis for the scores of Level of Motivation in the second study for students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	30	4.35	24.32	729.5	264.5	-0.97	0.169	0.135	small
Type.less.2	ont-gamified	21	4.54	28.40	596.5	264.5	-0.97	0.169	0.135	small
Type.greater.1	non-gamified	30	4.35	24.32	729.5	264.5	-0.97	0.833	0.135	small
Type.greater.2	ont-gamified	21	4.54	28.40	596.5	264.5	-0.97	0.833	0.135	small
Type.two.sided.1	non-gamified	30	4.35	24.32	729.5	264.5	-0.97	0.339	0.135	small
Type.two.sided.2	ont-gamified	21	4.54	28.40	596.5	264.5	-0.97	0.339	0.135	small
Type:CLRole.less.1	non-gamified.Apprentice	19	4.23	14.74	280.0	90.0	-0.62	0.273	0.114	small
Type:CLRole.less.2	non-gamified.Master	11	4.54	16.82	185.0	90.0	-0.62	0.273	0.114	small
Type:CLRole.greater.1	non-gamified.Apprentice	19	4.23	14.74	280.0	90.0	-0.62	0.734	0.114	small
Type:CLRole.greater.2	non-gamified.Master	11	4.54	16.82	185.0	90.0	-0.62	0.734	0.114	small
Type:CLRole.two.sided.1	non-gamified.Apprentice	19	4.23	14.74	280.0	90.0	-0.62	0.545	0.114	small
Type:CLRole.two.sided.2	non-gamified.Master	11	4.54	16.82	185.0	90.0	-0.62	0.545	0.114	small
Type:CLRole.less.11	non-gamified.Apprentice	19	4.23	14.74	280.0	90.0	-1.29	0.102	0.228	small
Type:CLRole.less.21	ont-gamified.Apprentice	13	4.54	19.08	248.0	90.0	-1.29	0.102	0.228	small
Type:CLRole.greater.11	non-gamified.Apprentice	19	4.23	14.74	280.0	90.0	-1.29	0.901	0.228	small
Type:CLRole.greater.21	ont-gamified.Apprentice	13	4.54	19.08	248.0	90.0	-1.29	0.901	0.228	small
Type:CLRole.two.sided.11	non-gamified.Apprentice	19	4.23	14.74	280.0	90.0	-1.29	0.205	0.228	small
Type:CLRole.two.sided.21	ont-gamified.Apprentice	13	4.54	19.08	248.0	90.0	-1.29	0.205	0.228	small
Type:CLRole.less.12	non-gamified.Apprentice	19	4.23	13.50	256.5	66.5	-0.51	0.315	0.097	none
Type:CLRole.less.22	ont-gamified.Master	8	4.50	15.19	121.5	66.5	-0.51	0.315	0.097	none
Type:CLRole.greater.12	non-gamified.Apprentice	19	4.23	13.50	256.5	66.5	-0.51	0.694	0.097	none
Type:CLRole.greater.22	ont-gamified.Master	8	4.50	15.19	121.5	66.5	-0.51	0.694	0.097	none
Type:CLRole.two.sided.12	non-gamified.Apprentice	19	4.23	13.50	256.5	66.5	-0.51	0.630	0.097	none
Type:CLRole.two.sided.22	ont-gamified.Master	8	4.50	15.19	121.5	66.5	-0.51	0.630	0.097	none
Type:CLRole.less.13	non-gamified.Master	11	4.54	11.55	127.0	61.0	-0.61	0.279	0.124	small
Type:CLRole.less.23	ont-gamified.Apprentice	13	4.54	13.31	173.0	61.0	-0.61	0.279	0.124	small
Type:CLRole.greater.13	non-gamified.Master	11	4.54	11.55	127.0	61.0	-0.61	0.730	0.124	small
Type:CLRole.greater.23	ont-gamified.Apprentice	13	4.54	13.31	173.0	61.0	-0.61	0.730	0.124	small
Type:CLRole.two.sided.13	non-gamified.Master	11	4.54	11.55	127.0	61.0	-0.61	0.559	0.124	small
Type:CLRole.two.sided.23	ont-gamified.Apprentice	13	4.54	13.31	173.0	61.0	-0.61	0.559	0.124	small
Type:CLRole.less.14	non-gamified.Master	11	4.54	10.27	113.0	47.0	0.25	0.603	0.057	none
Type:CLRole.less.24	ont-gamified.Master	8	4.50	9.62	77.0	47.0	0.25	0.603	0.057	none
Type:CLRole.greater.14	non-gamified.Master	11	4.54	10.27	113.0	47.0	0.25	0.412	0.057	none
Type:CLRole.greater.24	ont-gamified.Master	8	4.50	9.62	77.0	47.0	0.25	0.412	0.057	none
Type:CLRole.two.sided.14	non-gamified.Master	11	4.54	10.27	113.0	47.0	0.25	0.824	0.057	none
Type:CLRole.two.sided.24	ont-gamified.Master	8	4.50	9.62	77.0	47.0	0.25	0.824	0.057	none
Type:CLRole.less.15	ont-gamified.Apprentice	13	4.54	11.85	154.0	63.0	0.80	0.788	0.174	small
Type:CLRole.less.25	ont-gamified.Master	8	4.50	9.62	77.0	63.0	0.80	0.788	0.174	small
Type:CLRole.greater.15	ont-gamified.Apprentice	13	4.54	11.85	154.0	63.0	0.80	0.222	0.174	small
Type:CLRole.greater.25	ont-gamified.Master	8	4.50	9.62	77.0	63.0	0.80	0.222	0.174	small

Table 2: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	13	4.54	11.85	154.0	63.0	0.80	0.444	0.174	small
Type:CLRole.two.sided.25	ont-gamified.Master	8	4.50	9.62	77.0	63.0	0.80	0.444	0.174	small