

Summary of nonparametric statistics analysis for the scores of Level of Motivation in the third study for signed up students

Table 1: Summary of Scheirer-Ray-Hare results for the scores of Level of Motivation in the third study for signed up students

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	83.893	0.366	0.545	
Type:CLRole	1	97.932	0.427	0.513	
Type:Type:CLRole	1	116.729	0.509	0.476	
Type:Residuals	48	11397.445			

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 third study for signed up students

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	ont-gamified	25	4.23	27.82	695.5	370.5	0.60	0.727	0.084	none
Type.less.2	w/o-gamified	27	4.15	25.28	682.5	370.5	0.60	0.727	0.084	none
Type.greater.1	ont-gamified	25	4.23	27.82	695.5	370.5	0.60	0.276	0.084	none
Type.greater.2	w/o-gamified	27	4.15	25.28	682.5	370.5	0.60	0.276	0.084	none
Type.two.sided.1	ont-gamified	25	4.23	27.82	695.5	370.5	0.60	0.551	0.084	none
Type.two.sided.2	w/o-gamified	27	4.15	25.28	682.5	370.5	0.60	0.551	0.084	none
Type:CLRole.less.1	ont-gamified.Apprentice	16	4.04	11.97	191.5	55.5	-0.93	0.182	0.187	small
Type:CLRole.less.2	ont-gamified.Master	9	4.31	14.83	133.5	55.5	-0.93	0.182	0.187	small
Type:CLRole.greater.1	ont-gamified.Apprentice	16	4.04	11.97	191.5	55.5	-0.93	0.825	0.187	small
Type:CLRole.greater.2	ont-gamified.Master	9	4.31	14.83	133.5	55.5	-0.93	0.825	0.187	small
Type:CLRole.two.sided.1	ont-gamified.Apprentice	16	4.04	11.97	191.5	55.5	-0.93	0.364	0.187	small
Type:CLRole.two.sided.2	ont-gamified.Master	9	4.31	14.83	133.5	55.5	-0.93	0.364	0.187	small
Type:CLRole.less.11	ont-gamified.Apprentice	16	4.04	18.16	290.5	154.5	0.08	0.536	0.014	none
Type:CLRole.less.21	w/o-gamified.Apprentice	19	4.08	17.87	339.5	154.5	0.08	0.536	0.014	none
Type:CLRole.greater.11	ont-gamified.Apprentice	16	4.04	18.16	290.5	154.5	0.08	0.471	0.014	none
Type:CLRole.greater.21	w/o-gamified.Apprentice	19	4.08	17.87	339.5	154.5	0.08	0.471	0.014	none
Type:CLRole.two.sided.11	ont-gamified.Apprentice	16	4.04	18.16	290.5	154.5	0.08	0.941	0.014	none
Type:CLRole.two.sided.21	w/o-gamified.Apprentice	19	4.08	17.87	339.5	154.5	0.08	0.941	0.014	none
Type:CLRole.less.12	ont-gamified.Apprentice	16	4.04	12.50	200.0	64.0	0.00	0.506	0.000	none
Type:CLRole.less.22	w/o-gamified.Master	8	4.15	12.50	100.0	64.0	0.00	0.506	0.000	none
Type:CLRole.greater.12	ont-gamified.Apprentice	16	4.04	12.50	200.0	64.0	0.00	0.506	0.000	none
Type:CLRole.greater.22	w/o-gamified.Master	8	4.15	12.50	100.0	64.0	0.00	0.506	0.000	none
Type:CLRole.two.sided.12	ont-gamified.Apprentice	16	4.04	12.50	200.0	64.0	0.00	1.000	0.000	none
Type:CLRole.two.sided.22	w/o-gamified.Master	8	4.15	12.50	100.0	64.0	0.00	1.000	0.000	none
Type:CLRole.less.13	ont-gamified.Master	9	4.31	16.78	151.0	106.0	1.01	0.843	0.191	small
Type:CLRole.less.23	w/o-gamified.Apprentice	19	4.08	13.42	255.0	106.0	1.01	0.843	0.191	small
Type:CLRole.greater.13	ont-gamified.Master	9	4.31	16.78	151.0	106.0	1.01	0.163	0.191	small
Type:CLRole.greater.23	w/o-gamified.Apprentice	19	4.08	13.42	255.0	106.0	1.01	0.163	0.191	small
Type:CLRole.two.sided.13	ont-gamified.Master	9	4.31	16.78	151.0	106.0	1.01	0.325	0.191	small
Type:CLRole.two.sided.23	w/o-gamified.Apprentice	19	4.08	13.42	255.0	106.0	1.01	0.325	0.191	small
Type:CLRole.less.14	ont-gamified.Master	9	4.31	10.11	91.0	46.0	0.97	0.834	0.234	small
Type:CLRole.less.24	w/o-gamified.Master	8	4.15	7.75	62.0	46.0	0.97	0.834	0.234	small
Type:CLRole.greater.14	ont-gamified.Master	9	4.31	10.11	91.0	46.0	0.97	0.178	0.234	small
Type:CLRole.greater.24	w/o-gamified.Master	8	4.15	7.75	62.0	46.0	0.97	0.178	0.234	small
Type:CLRole.two.sided.14	ont-gamified.Master	9	4.31	10.11	91.0	46.0	0.97	0.356	0.234	small
Type:CLRole.two.sided.24	w/o-gamified.Master	8	4.15	7.75	62.0	46.0	0.97	0.356	0.234	small
Type:CLRole.less.15	w/o-gamified.Apprentice	19	4.08	14.08	267.5	77.5	0.08	0.536	0.015	none
Type:CLRole.less.25	w/o-gamified.Master	8	4.15	13.81	110.5	77.5	0.08	0.536	0.015	none
Type:CLRole.greater.15	w/o-gamified.Apprentice	19	4.08	14.08	267.5	77.5	0.08	0.474	0.015	none
Type:CLRole.greater.25	w/o-gamified.Master	8	4.15	13.81	110.5	77.5	0.08	0.474	0.015	none

Table 2: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	w/o-gamified.Apprentice	19	4.08	14.08	267.5	77.5	0.08	0.948	0.015	none
Type:CLRole.two.sided.25	w/o-gamified.Master	8	4.15	13.81	110.5	77.5	0.08	0.948	0.015	none