

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

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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	8.360	0.051	0.822	
Type:CLRole	1	19.641	0.119	0.730	
Type:Type:CLRole	1	147.339	0.895	0.344	
Type:Residuals	40	6906.160			

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 students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	ont-gamified	25	4.23	22.12	553.0	228.0	-0.23	0.414	0.034	none
Type.less.2	w/o-gamified	19	4.31	23.00	437.0	228.0	-0.23	0.414	0.034	none
Type.greater.1	ont-gamified	25	4.23	22.12	553.0	228.0	-0.23	0.590	0.034	none
Type.greater.2	w/o-gamified	19	4.31	23.00	437.0	228.0	-0.23	0.590	0.034	none
Type.two.sided.1	ont-gamified	25	4.23	22.12	553.0	228.0	-0.23	0.828	0.034	none
Type.two.sided.2	w/o-gamified	19	4.31	23.00	437.0	228.0	-0.23	0.828	0.034	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	14.03	224.5	88.5	-0.68	0.254	0.127	small
Type:CLRole.less.21	w/o-gamified.Apprentice	13	4.31	16.19	210.5	88.5	-0.68	0.254	0.127	small
Type:CLRole.greater.11	ont-gamified.Apprentice	16	4.04	14.03	224.5	88.5	-0.68	0.753	0.127	small
Type:CLRole.greater.21	w/o-gamified.Apprentice	13	4.31	16.19	210.5	88.5	-0.68	0.753	0.127	small
Type:CLRole.two.sided.11	ont-gamified.Apprentice	16	4.04	14.03	224.5	88.5	-0.68	0.508	0.127	small
Type:CLRole.two.sided.21	w/o-gamified.Apprentice	13	4.31	16.19	210.5	88.5	-0.68	0.508	0.127	small
Type:CLRole.less.12	ont-gamified.Apprentice	16	4.04	11.44	183.0	47.0	-0.07	0.478	0.016	none
Type:CLRole.less.22	w/o-gamified.Master	6	4.31	11.67	70.0	47.0	-0.07	0.478	0.016	none
Type:CLRole.greater.12	ont-gamified.Apprentice	16	4.04	11.44	183.0	47.0	-0.07	0.535	0.016	none
Type:CLRole.greater.22	w/o-gamified.Master	6	4.31	11.67	70.0	47.0	-0.07	0.535	0.016	none
Type:CLRole.two.sided.12	ont-gamified.Apprentice	16	4.04	11.44	183.0	47.0	-0.07	0.957	0.016	none
Type:CLRole.two.sided.22	w/o-gamified.Master	6	4.31	11.67	70.0	47.0	-0.07	0.957	0.016	none
Type:CLRole.less.13	ont-gamified.Master	9	4.31	11.78	106.0	61.0	0.17	0.571	0.036	none
Type:CLRole.less.23	w/o-gamified.Apprentice	13	4.31	11.31	147.0	61.0	0.17	0.571	0.036	none
Type:CLRole.greater.13	ont-gamified.Master	9	4.31	11.78	106.0	61.0	0.17	0.441	0.036	none
Type:CLRole.greater.23	w/o-gamified.Apprentice	13	4.31	11.31	147.0	61.0	0.17	0.441	0.036	none
Type:CLRole.two.sided.13	ont-gamified.Master	9	4.31	11.78	106.0	61.0	0.17	0.883	0.036	none
Type:CLRole.two.sided.23	w/o-gamified.Apprentice	13	4.31	11.31	147.0	61.0	0.17	0.883	0.036	none
Type:CLRole.less.14	ont-gamified.Master	9	4.31	8.50	76.5	31.5	0.53	0.708	0.137	small
Type:CLRole.less.24	w/o-gamified.Master	6	4.31	7.25	43.5	31.5	0.53	0.708	0.137	small
Type:CLRole.greater.14	ont-gamified.Master	9	4.31	8.50	76.5	31.5	0.53	0.314	0.137	small
Type:CLRole.greater.24	w/o-gamified.Master	6	4.31	7.25	43.5	31.5	0.53	0.314	0.137	small
Type:CLRole.two.sided.14	ont-gamified.Master	9	4.31	8.50	76.5	31.5	0.53	0.628	0.137	small
Type:CLRole.two.sided.24	w/o-gamified.Master	6	4.31	7.25	43.5	31.5	0.53	0.628	0.137	small
Type:CLRole.less.15	w/o-gamified.Apprentice	13	4.31	10.50	136.5	45.5	0.57	0.718	0.131	small
Type:CLRole.less.25	w/o-gamified.Master	6	4.31	8.92	53.5	45.5	0.57	0.718	0.131	small
Type:CLRole.greater.15	w/o-gamified.Apprentice	13	4.31	10.50	136.5	45.5	0.57	0.297	0.131	small
Type:CLRole.greater.25	w/o-gamified.Master	6	4.31	8.92	53.5	45.5	0.57	0.297	0.131	small

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	13	4.31	10.50	136.5	45.5	0.57	0.593	0.131	small
Type:CLRole.two.sided.25	w/o-gamified.Master	6	4.31	8.92	53.5	45.5	0.57	0.593	0.131	small