## Summary of nonparametric statistics analysis for the scores of Attention in the second study for students with effective participation

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

	Df	Sum Sq	Η	p.value	Sig
Type					
Type:Type	1	425.506	1.933	0.164	
Type:CLRole	1	4.153	0.019	0.891	
Type:Type:CLRole	1	255.507	1.161	0.281	
Type:Residuals	47	10321.834			

Signif. codes: 0 "\*\*" 0.01 "\*" 0.05

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

Type:CLRole.less.2 Type:CLRole.greater.1 Type:CLRole.two.sided.1 Type:CLRole.two.sided.2 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.greater.21 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.greater.22 Type:CLRole.less.23 Type:CLRole.less.33 Type:CLRole.greater.3 Type:CLRole.greater.4 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.3			Median	Mean.Ranks	Sum.Ranks	U	$\mathbf{Z}$	p.value	$\mathbf{r}$	magnitude
Type.greater.1 Type.two.sided.1 Type.two.sided.2 Type:CLRole.less.1 Type:CLRole.less.2 Type:CLRole.greater.2 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.greater.21 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.less.21 Type:CLRole.less.12 Type:CLRole.less.12 Type:CLRole.less.12 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.less.23 Type:CLRole.less.33 Type:CLRole.greater.33 Type:CLRole.greater.34 Type:CLRole.greater.14 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.30 Type:CLRole.greate	ed 30	)	4.00	23.58	707.5	242.5	-1.39	0.084	0.195	small
Type.greater.2 Type.two.sided.1 Type.two.sided.2 Type:CLRole.less.1 Type:CLRole.less.2 Type:CLRole.greater.2 Type:CLRole.two.sided.1 Type:CLRole.less.11 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.greater.21 Type:CLRole.less.12 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.less.33 Type:CLRole.greater.33 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.39 Type:CLRole	d 21	1	4.50	29.45	618.5	242.5	-1.39	0.084	0.195	small
Type.two.sided.1 Type.two.sided.2 Type:CLRole.less.1 Type:CLRole.less.2 Type:CLRole.greater.2 Type:CLRole.two.sided.1 Type:CLRole.less.21 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.33 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.less.44 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.39 Type:C	ed 30	)	4.00	23.58	707.5	242.5	-1.39	0.918	0.195	small
Type:CLRole.less.1 Type:CLRole.less.2 Type:CLRole.greater.1 Type:CLRole.two.sided.1 Type:CLRole.less.21 Type:CLRole.less.21 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.21 Type:CLRole.two.sided.11 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.23 Type:CLRole.less.33 Type:CLRole.less.33 Type:CLRole.less.33 Type:CLRole.greater.23 Type:CLRole.less.33 Type:CLRole.less.33 Type:CLRole.less.33 Type:CLRole.less.33 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.less.24 Type:CLRole.greater.34 Type:CLRole.greater.34 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.greater.34 Type:CLRole.greater.34 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.greater.34 Type:CLRole.greater.36 Type:CLRole.greater.36 Type:CLRole.greater.37 Type:CLRole.greater.39 Type:	d 21	1	4.50	29.45	618.5	242.5	-1.39	0.918	0.195	small
Type:CLRole.less.2 Type:CLRole.greater.1 Type:CLRole.greater.2 Type:CLRole.two.sided.1 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.less.21 Type:CLRole.syreater.21 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.23 Type:CLRole.less.23 Type:CLRole.less.23 Type:CLRole.greater.33 Type:CLRole.greater.3 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.34 Type:CLRole.greater.44 Type:CLRole.greater.44	ed 30	)	4.00	23.58	707.5	242.5	-1.39	0.167	0.195	small
Type:CLRole.less.2 Type:CLRole.greater.1 Type:CLRole.greater.2 Type:CLRole.less.ided.1 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.greater.21 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.12 Type:CLRole.greater.22 Type:CLRole.greater.31 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.less.44 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.44 Type:CLRole.greater.44 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.39 Type:CLRole.gre	d 21	1	4.50	29.45	618.5	242.5	-1.39	0.167	0.195	small
Type:CLRole.greater.1 Type:CLRole.two.sided.1 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.11 Type:CLRole.greater.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.12 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.greater.32 Type:CLRole.two.sided.12 Type:CLRole.greater.33 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.less.24 Type:CLRole.greater.44 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.34 Type:CLRole.less.34 Type:CLRole.less.34 Type:CLRole.greater.34 Type:CLRole.greater.39 Ty	d.Apprentice 19	9	3.67	14.76	280.5	90.5	-0.60	0.280	0.110	small
Type:CLRole.greater.2 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.two.sided.2 Type:CLRole.greater.21 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.greater.22 Type:CLRole.greater.23 Type:CLRole.less.23 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.less.24 Type:CLRole.greater.44 Type:CLRole.greater.24	d.Master 11	1	4.33	16.77	184.5	90.5	-0.60	0.280	0.110	$\operatorname{small}$
Type:CLRole.two.sided.1 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.less.21 Type:CLRole.greater.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.11 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.12 Type:CLRole.two.sided.12 Type:CLRole.less.23 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.less.24 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.less.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 19	9	3.67	14.76	280.5	90.5	-0.60	0.727	0.110	$\operatorname{small}$
Type:CLRole.two.sided.2 Type:CLRole.less.11 Type:CLRole.less.21 Type:CLRole.greater.21 Type:CLRole.two.sided.11 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.13 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.13 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.34 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.36 Type:CLRole.greater.37 Type:CLRole.greater.39 Type:CLRole.greater.	d.Master 11	1	4.33	16.77	184.5	90.5	-0.60	0.727	0.110	small
Type:CLRole.less.21 Type:CLRole.greater.21 Type:CLRole.greater.21 Type:CLRole.two.sided.11 Type:CLRole.less.12 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.two.sided.21 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.23 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.34 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.greater.41 Type:CLRole.greater.44 Type:CLRole.greater.44 Type:CLRole.greater.44 Type:CLRole.greater.24 Type:CLRole.greater.44 Type:CLRole.greater.44	d.Apprentice 19	9	3.67	14.76	280.5	90.5	-0.60	0.559	0.110	small
Type:CLRole.less.21 Type:CLRole.greater.21 Type:CLRole.two.sided.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.greater.12 Type:CLRole.greater.12 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.greater.33 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.34 Type:CLRole.greater.44 Type:CLRole.greater.44 Type:CLRole.greater.44	d.Master 11	1	4.33	16.77	184.5	90.5	-0.60	0.559	0.110	small
Type:CLRole.greater.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.less.33 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 19	9	3.67	14.26	271.0	81.0	-1.64	0.052	0.289	small
Type:CLRole.greater.21 Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.greater.22 Type:CLRole.less.33 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 13	3	4.50	19.77	257.0	81.0	-1.64	0.052	0.289	$\operatorname{small}$
Type:CLRole.two.sided.11 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.two.sided.21 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.22 Type:CLRole.two.sided.22 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 19	9	3.67	14.26	271.0	81.0	-1.64	0.950	0.289	$\operatorname{small}$
Type:CLRole.two.sided.11 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.two.sided.21 Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.22 Type:CLRole.two.sided.22 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 13	3	4.50	19.77	257.0	81.0	-1.64	0.950	0.289	$\operatorname{small}$
Type:CLRole.two.sided.21 Type:CLRole.less.12 Type:CLRole.less.22 Type:CLRole.greater.12 Type:CLRole.two.sided.12 Type:CLRole.two.sided.12 Type:CLRole.two.sided.22 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.24 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 19	9	3.67	14.26	271.0	81.0	-1.64	0.105	0.289	$\operatorname{small}$
Type:CLRole.less.22 ont-gamified ont-gamified non-gamified non-gamifie	d.Apprentice 13	3	4.50	19.77	257.0	81.0	-1.64	0.105	0.289	$\operatorname{small}$
Type:CLRole.less.22 ont-gamified ont-gamified rype:CLRole.greater.22 opt-gamified non-gamified ont-gamified non-gamified n	d.Apprentice 19	9	3.67	13.34	253.5	63.5	-0.67	0.261	0.128	$\operatorname{small}$
Type:CLRole.greater.12 Type:CLRole.two.sided.12 Type:CLRole.two.sided.22 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.greater.24 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Master 8	3	4.17	15.56	124.5	63.5	-0.67	0.261	0.128	$\operatorname{small}$
Type:CLRole.greater.22 Type:CLRole.two.sided.12 Type:CLRole.two.sided.22 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.greater.23 Type:CLRole.greater.23 Type:CLRole.two.sided.13 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24	d.Apprentice 19	9	3.67	13.34	253.5	63.5	-0.67	0.747	0.128	small
Type:CLRole.two.sided.12 Type:CLRole.less.13 Type:CLRole.less.23 Type:CLRole.greater.13 Type:CLRole.two.sided.13 Type:CLRole.greater.23 Type:CLRole.two.sided.13 Type:CLRole.two.sided.13 Type:CLRole.two.sided.23 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24 Type:CLRole.greater.24		3	4.17	15.56	124.5	63.5	-0.67	0.747	0.128	small
Type:CLRole.two.sided.22 Type:CLRole.less.13 Type:CLRole.less.23 ont-gamified non-gamified non-gamified ont-gamified ont-g	d.Apprentice 19		3.67	13.34	253.5	63.5	-0.67	0.522	0.128	small
Type:CLRole.less.13 non-gamifie ont-gamifie ype:CLRole.greater.13 rype:CLRole.greater.23 non-gamifie ont-gamifie ont-gamifie ont-gamifie ont-gamifie ype:CLRole.two.sided.13 rype:CLRole.less.14 non-gamifie ype:CLRole.less.24 ont-gamifie ont-gamifie ype:CLRole.greater.14 pype:CLRole.greater.24 ont-gamifie ont-gamifie ont-gamifie ont-gamifie ont-gamifie ont-gamifie ont-gamifier ont-		3	4.17	15.56	124.5	63.5	-0.67	0.522	0.128	small
Type:CLRole.less.23 ont-gamified from the control of the control o		1	4.33	10.82	119.0	53.0	-1.07	0.148	0.219	small
Type:CLRole.greater.13 non-gamifie ont-gamifie ont-gamifie ont-gamifie ont-gamifie ont-gamifie non-gamifie non-gamifie non-gamifie non-gamifie non-gamifie non-gamifie ont-gamifie	d.Apprentice 13	3	4.50	13.92	181.0	53.0	-1.07	0.148	0.219	small
Type:CLRole.greater.23 ont-gamified non-gamified non-gamified ont-gamified ont-gami			4.33	10.82	119.0	53.0	-1.07	0.859	0.219	small
Type:CLRole.two.sided.13 Type:CLRole.two.sided.23 Type:CLRole.less.14 Type:CLRole.less.24 Type:CLRole.greater.14 Type:CLRole.greater.24 non-gamified ont-gamified	d.Apprentice 13	3	4.50	13.92	181.0	53.0	-1.07	0.859	0.219	small
Type:CLRole.two.sided.23 ont-gamified Type:CLRole.less.14 non-gamified ont-gamified Type:CLRole.greater.14 prope:CLRole.greater.24 ont-gamified ont-			4.33	10.82	119.0	53.0	-1.07	0.295	0.219	small
Type:CLRole.less.14 non-gamifie Type:CLRole.less.24 ont-gamifie Type:CLRole.greater.14 non-gamifie Type:CLRole.greater.24 ont-gamifie			4.50	13.92	181.0	53.0	-1.07	0.295	0.219	small
Type:CLRole.less.24 ont-gamified Type:CLRole.greater.14 non-gamified Type:CLRole.greater.24 ont-gamified			4.33	10.09	111.0	45.0	0.08	0.540	0.019	none
Type:CLRole.greater.14 non-gamifie Type:CLRole.greater.24 non-gamifie			4.17	9.88	79.0	45.0	0.08	0.540	0.019	none
Type:CLRole.greater.24 ont-gamified			4.33	10.09	111.0	45.0	0.08	0.476	0.019	none
			4.17	9.88	79.0	45.0	0.08	0.476	0.019	none
Type:Clrole.two.sided.14 non-gamine	d.Master 11		4.33	10.09	111.0	45.0	0.08	0.951	0.019	none
Type:CLRole.two.sided.24 ont-gamified			4.17	9.88	79.0	45.0	0.08	0.951	0.019	none
	d.Apprentice 13		4.50	12.08	157.0	66.0	1.02	0.848	0.222	small
Type:CLRole.less.25 ont-gamified			4.17	9.25	74.0	66.0	1.02	0.848	0.222	small
	d.Apprentice 13		4.50	12.08	157.0	66.0	1.02	0.164	0.222	small
Type:CLRole.greater.25 ont-gamified			4.17	9.25	74.0	66.0	1.02	0.164	0.222	small

## Table 2: (continued)

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	$\mathbf{Z}$	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	13	4.50	12.08	157.0	66.0	1.02	0.325	0.222	small
Type:CLRole.two.sided.25	ont-gamified.Master	8	4.17	9.25	74.0	66.0	1.02	0.325	0.222	$\operatorname{small}$