Summary of nonparametric statistics analysis for Differences of Scores in the pilot study for signed-up students

Table 1: Summary of Scheirer-Ray-Hare results for Differences of Scores in the pilot study for signed-up students

	Df	Sum Sq	H	p.value	Sig
difScore					
difScore:Type	1	164.062	2.126	0.145	
difScore:CLRole	1	283.938	3.680	0.055	
difScore:Type:CLRole	1	8.761	0.114	0.736	
difScore:Residuals	26	1780.739			

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

Table 2: Descriptive statistic of the pair wilcoxon analysis for Differences of Scores in the pilot study for signed-up students

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.greater.1	non-gamified.Apprentice	11	6	10.05	110.5	44.5	1.93	0.027	0.483	medium
Type:CLRole.greater.2	ont-gamified.Master	5	−3	5.10	25.5	44.5	1.93	0.027	0.483	medium

Table 3: Full descriptive statistic of the pair wilcoxon analysis for Differences of Scores in the pilot study for signed-up students

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	14	4.5	18.00	252.0	147.0	1.46	0.928	0.266	small
Type.less.2	ont-gamified	16	0.5	13.31	213.0	147.0	1.46	0.928	0.266	small
Type.greater.1	non-gamified	14	4.5	18.00	252.0	147.0	1.46	0.075	0.266	small
Type.greater.2	ont-gamified	16	0.5	13.31	213.0	147.0	1.46	0.075	0.266	small
Type.two.sided.1	non-gamified	14	4.5	18.00	252.0	147.0	1.46	0.150	0.266	small
Type.two.sided.2	ont-gamified	16	0.5	13.31	213.0	147.0	1.46	0.150	0.266	small
Type:CLRole.less.1	non-gamified.Apprentice	11	6.0	8.45	93.0	27.0	1.64	0.951	0.438	medium
Type:CLRole.less.2	non-gamified.Master	3	2.0	4.00	12.0	27.0	1.64	0.951	0.438	medium
Type:CLRole.greater.1	non-gamified.Apprentice	11	6.0	8.45	93.0	27.0	1.64	0.058	0.438	medium
Type:CLRole.greater.2	non-gamified.Master	3	2.0	4.00	12.0	27.0	1.64	0.058	0.438	medium
Type:CLRole.two.sided.1	non-gamified.Apprentice	11	6.0	8.45	93.0	27.0	1.64	0.115	0.438	medium
Type:CLRole.two.sided.2	non-gamified.Master	3	2.0	4.00	12.0	27.0	1.64	0.115	0.438	medium
Type:CLRole.less.11	non-gamified.Apprentice	11	6.0	13.32	146.5	80.5	1.32	0.907	0.281	small
Type:CLRole.less.21	ont-gamified.Apprentice	11	4.0	9.68	106.5	80.5	1.32	0.907	0.281	small
Type:CLRole.greater.11	non-gamified.Apprentice	11	6.0	13.32	146.5	80.5	1.32	0.099	0.281	small
Type:CLRole.greater.21	ont-gamified.Apprentice	11	4.0	9.68	106.5	80.5	1.32	0.099	0.281	small
Type:CLRole.two.sided.11	non-gamified.Apprentice	11	6.0	13.32	146.5	80.5	1.32	0.199	0.281	small
Type:CLRole.two.sided.21	ont-gamified.Apprentice	11	4.0	9.68	106.5	80.5	1.32	0.199	0.281	small
Type:CLRole.less.12	non-gamified.Apprentice	11	6.0	10.05	110.5	44.5	1.93	0.975	0.483	medium
Type:CLRole.less.22	ont-gamified.Master	5	−3.0	5.10	25.5	44.5	1.93	0.975	0.483	medium
Type:CLRole.greater.12	non-gamified.Apprentice	11	6.0	10.05	110.5	44.5	1.93	0.027	0.483	medium
Type:CLRole.greater.22	ont-gamified.Master	5	−3.0	5.10	25.5	44.5	1.93	0.027	0.483	medium
Type:CLRole.two.sided.12	non-gamified.Apprentice	11	6.0	10.05	110.5	44.5	1.93	0.054	0.483	medium
Type:CLRole.two.sided.22	ont-gamified.Master	5	−3.0	5.10	25.5	44.5	1.93	0.054	0.483	medium
Type:CLRole.less.13	non-gamified.Master	3	2.0	5.83	17.5	11.5	−0.78	0.242	0.209	small
Type:CLRole.less.23	ont-gamified.Apprentice	11	4.0	7.95	87.5	11.5	−0.78	0.242	0.209	small
Type:CLRole.greater.13	non-gamified.Master	3	2.0	5.83	17.5	11.5	−0.78	0.786	0.209	small
Type:CLRole.greater.23	ont-gamified.Apprentice	11	4.0	7.95	87.5	11.5	−0.78	0.786	0.209	small
Type:CLRole.two.sided.13	non-gamified.Master	3	2.0	5.83	17.5	11.5	−0.78	0.484	0.209	small
Type:CLRole.two.sided.23	ont-gamified.Apprentice	11	4.0	7.95	87.5	11.5	−0.78	0.484	0.209	small
Type:CLRole.less.14	non-gamified.Master	3	2.0	5.50	16.5	10.5	0.90	0.839	0.318	medium
Type:CLRole.less.24	ont-gamified.Master	5	−3.0	3.90	19.5	10.5	0.90	0.839	0.318	medium
Type:CLRole.greater.14	non-gamified.Master	3	2.0	5.50	16.5	10.5	0.90	0.232	0.318	medium
Type:CLRole.greater.24	ont-gamified.Master	5	−3.0	3.90	19.5	10.5	0.90	0.232	0.318	medium
Type:CLRole.two.sided.14	non-gamified.Master	3	2.0	5.50	16.5	10.5	0.90	0.464	0.318	medium
Type:CLRole.two.sided.24	ont-gamified.Master	5	−3.0	3.90	19.5	10.5	0.90	0.464	0.318	medium
Type:CLRole.less.15	ont-gamified.Apprentice	11	4.0	9.55	105.0	39.0	1.31	0.906	0.326	medium
Type:CLRole.less.25	ont-gamified.Master	5	−3.0	6.20	31.0	39.0	1.31	0.906	0.326	medium
Type:CLRole.greater.15	ont-gamified.Apprentice	11	4.0	9.55	105.0	39.0	1.31	0.107	0.326	medium
Type:CLRole.greater.25	ont-gamified.Master	5	−3.0	6.20	31.0	39.0	1.31	0.107	0.326	medium

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
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Type:CLRole.two.sided.25	ont-gamified.Master	5	−3.0	6.20	31.0	39.0	1.31	0.210	0.326	medium

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Type:CLRole.two.sided.25	ont-gamified.Master	5	−3.0	6.20	31.0	39.0	1.31	0.210	0.326	medium