

Summary of parametric statistics analysis for the gains in skill/knowledge estimates in the second empirical study

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Table 1: Summary of two-way ANOVA results for the gains in skill/knowledge estimates in the second empirical study

| | Sum Sq | Df | F value | Pr(>F) | Sig |
|------------------|--------|----|---------|--------|-----|
| Type.(Intercept) | 0.004 | 1 | 0.276 | 0.602 | |
| Type.Type | 0.013 | 1 | 0.923 | 0.343 | |
| Type.CLRole | 0.053 | 1 | 3.636 | 0.064 | |
| Type.Type:CLRole | 0.039 | 1 | 2.650 | 0.112 | |
| Type.Residuals | 0.555 | 38 | | | |

Signif. codes: 0 “***” 0.01 “**” 0.05

Table 2: Descriptive statistics and Tukey post-hoc test results for the gains in skill/knowledge estimates in the second empirical study

| | N | mean | lsmean | SE | df | lwr.CI | upr.CI | t.ratio | p.value | p.ajd | g | sig | mag |
|--|----|--------|--------|-------|----|--------|--------|---------|---------|-------|--------|-----|-----|
| Type.non-gamified | 26 | 0.012 | 0.009 | 0.026 | 38 | -0.043 | 0.061 | | | | | | |
| Type.ont-gamified | 16 | 0.006 | -0.032 | 0.035 | 38 | -0.103 | 0.038 | | | | | | |
| Type.non-gamified - ont-gamified | 42 | 0.006 | 0.042 | 0.043 | | -0.072 | 0.083 | 0.961 | 0.343 | 0.884 | 0.044 | | |
| Type.non-gamified.Apprentice | 18 | 0.015 | 0.015 | 0.028 | 38 | -0.042 | 0.073 | | | | | | |
| Type.ont-gamified.Apprentice | 12 | 0.044 | 0.044 | 0.035 | 38 | -0.026 | 0.115 | | | | | | |
| Type.non-gamified.Apprentice - ont-gamified.Apprentice | 30 | -0.029 | -0.029 | 0.045 | | -0.150 | 0.092 | -0.642 | 0.525 | 0.918 | -0.227 | | |
| Type.non-gamified.Master | 8 | 0.003 | 0.003 | 0.043 | 38 | -0.083 | 0.090 | | | | | | |
| Type.ont-gamified.Master | 4 | -0.109 | -0.109 | 0.060 | 38 | -0.231 | 0.014 | | | | | | |
| Type.non-gamified.Master - ont-gamified.Master | 12 | 0.112 | 0.112 | 0.074 | | -0.087 | 0.311 | 1.515 | 0.138 | 0.439 | 0.929 | | |