

Summary of correlation analysis between motivation factors and in the third empirical study

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1 Gains in Skill/Knowledge and Motivation

Table 1: Correlation matrix of Gains in Skill/Knowledge and Motivation between motivation factors and in the third empirical study

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Table 2: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation between motivation factors and in the third empirical study

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2 Gains in Skill/Knowledge and Motivation for the group ont-gamified

Table 3: Correlation matrix of Gains in Skill/Knowledge and Motivation for the group ont-gamified between motivation factors and in the third empirical study

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Table 4: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation for the group ont-gamified between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	0.0000	0.7454	0.4500	0.7284	0.7704	0.2864	0.7117	0.8667	0.7470	0.3141
method: spearman										

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Table 7: (continued)

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Pressure/Tension	0.1641	−0.3550	−0.0142	−0.3343	1.0000	−0.1216	0.0526	0.1541	−0.2013	0.0850
Effort/Importance	0.1264	0.3817	−0.0940	0.1597	−0.1216	1.0000	0.1709	−0.1000	0.1884	0.3614
Level of Motivation	−0.1221	0.6716	0.7721	0.3487	0.0526	0.1709	1.0000	0.9022	0.5027	0.8541
Attention	−0.1367	0.3851	0.7502	0.1121	0.1541	−0.1000	0.9022	1.0000	0.2896	0.6372
Relevance	0.0802	0.6293	0.2153	0.5275	−0.2013	0.1884	0.5027	0.2896	1.0000	0.4116
Satisfaction	0.0143	0.7112	0.6901	0.3776	0.0850	0.3614	0.8541	0.6372	0.4116	1.0000

method: spearman

Table 8: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation for the group Apprentice between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	0.0000	0.4184	0.0684	0.6426	0.3694	0.4905	0.5056	0.4557	0.6626	0.9380
Intrinsic Motivation	0.4184	0.0000	0.0001	0.0000	0.0462	0.0311	0.0000	0.0295	0.0001	0.0000
Interest/Enjoyment	0.0684	0.0001	0.0000	0.1830	0.9387	0.6089	0.0000	0.0000	0.2367	0.0000
Perceived Choice	0.6426	0.0000	0.1830	0.0000	0.0615	0.3825	0.0505	0.5414	0.0019	0.0331
Pressure/Tension	0.3694	0.0462	0.9387	0.0615	0.0000	0.5074	0.7751	0.3996	0.2691	0.6435
Effort/Importance	0.4905	0.0311	0.6089	0.3825	0.5074	0.0000	0.3496	0.5859	0.3018	0.0421
Level of Motivation	0.5056	0.0000	0.0000	0.0505	0.7751	0.3496	0.0000	0.0000	0.0034	0.0000
Attention	0.4557	0.0295	0.0000	0.5414	0.3996	0.5859	0.0000	0.0000	0.1080	0.0001
Relevance	0.6626	0.0001	0.2367	0.0019	0.2691	0.3018	0.0034	0.1080	0.0000	0.0193
Satisfaction	0.9380	0.0000	0.0000	0.0331	0.6435	0.0421	0.0000	0.0001	0.0193	0.0000

method: spearman

5 Gains in Skill/Knowledge and Motivation for the group Master

Table 9: Correlation matrix of Gains in Skill/Knowledge and Motivation for the group Master between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	1.0000	0.3168	0.0265	0.5347	−0.5118	0.2343	0.2126	0.0033	0.3642	0.0553
Intrinsic Motivation	0.3168	1.0000	0.4229	0.7731	−0.6452	0.4614	0.4070	0.0397	0.8027	0.3978
Interest/Enjoyment	0.0265	0.4229	1.0000	0.4029	0.2226	−0.0199	0.7233	0.4972	0.1680	0.5150
Perceived Choice	0.5347	0.7731	0.4029	1.0000	−0.4810	0.0288	0.5138	0.1867	0.5967	0.4164
Pressure/Tension	−0.5118	−0.6452	0.2226	−0.4810	1.0000	−0.4171	0.1084	0.4491	−0.5577	−0.1223
Effort/Importance	0.2343	0.4614	−0.0199	0.0288	−0.4171	1.0000	0.0950	0.0266	0.5670	0.0999
Level of Motivation	0.2126	0.4070	0.7233	0.5138	0.1084	0.0950	1.0000	0.8687	0.1589	0.8164
Attention	0.0033	0.0397	0.4972	0.1867	0.4491	0.0266	0.8687	1.0000	−0.1350	0.6818
Relevance	0.3642	0.8027	0.1680	0.5967	−0.5577	0.5670	0.1589	−0.1350	1.0000	0.0455
Satisfaction	0.0553	0.3978	0.5150	0.4164	−0.1223	0.0999	0.8164	0.6818	0.0455	1.0000

method: spearman

Table 10: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation for the group Master between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	0.0000	0.2697	0.9285	0.0488	0.0614	0.4202	0.4657	0.9910	0.2004	0.8510
Intrinsic Motivation	0.2697	0.0000	0.1319	0.0012	0.0127	0.0968	0.1486	0.8928	0.0005	0.1590
Interest/Enjoyment	0.9285	0.1319	0.0000	0.1532	0.4443	0.9461	0.0035	0.0704	0.5660	0.0595
Perceived Choice	0.0488	0.0012	0.1532	0.0000	0.0816	0.9222	0.0602	0.5227	0.0243	0.1386
Pressure/Tension	0.0614	0.0127	0.4443	0.0816	0.0000	0.1379	0.7122	0.1072	0.0382	0.6769
Effort/Importance	0.4202	0.0968	0.9461	0.9222	0.1379	0.0000	0.7466	0.9281	0.0345	0.7340
Level of Motivation	0.4657	0.1486	0.0035	0.0602	0.7122	0.7466	0.0000	0.0001	0.5873	0.0004
Attention	0.9910	0.8928	0.0704	0.5227	0.1072	0.9281	0.0001	0.0000	0.6455	0.0072
Relevance	0.2004	0.0005	0.5660	0.0243	0.0382	0.0345	0.5873	0.6455	0.0000	0.8774
Satisfaction	0.8510	0.1590	0.0595	0.1386	0.6769	0.7340	0.0004	0.0072	0.8774	0.0000

method: spearman

7 Gains in Skill/Knowledge and Motivation for the group ont-gamified.Master

Table 13: Correlation matrix of Gains in Skill/Knowledge and Motivation for the group ont-gamified.Master between motivation factors and in the third empirical study

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Table 14: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation for the group ont-gamified.Master between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	0.0000	0.0123	0.7578	0.0067	0.0073	0.0579	0.4976	0.9694	0.0489	0.3104
Intrinsic Motivation	0.0123	0.0000	0.9694	0.0028	0.0005	0.0085	0.3536	0.9694	0.0408	0.3104
Interest/Enjoyment	0.7578	0.9694	0.0000	0.7283	0.8734	0.8922	0.2890	0.7857	0.4479	0.2633
Perceived Choice	0.0067	0.0028	0.7283	0.0000	0.0005	0.0162	0.5560	0.8780	0.0085	0.5040
Pressure/Tension	0.0073	0.0005	0.8734	0.0005	0.0000	0.0176	0.5742	0.6582	0.0130	0.5423
Effort/Importance	0.0579	0.0085	0.8922	0.0162	0.0176	0.0000	0.1019	0.5133	0.1790	0.1876
Level of Motivation	0.4976	0.3536	0.2890	0.5560	0.5742	0.1019	0.0000	0.0334	0.6990	0.0019
Attention	0.9694	0.9694	0.7857	0.8780	0.6582	0.5133	0.0334	0.0000	0.3055	0.0856
Relevance	0.0489	0.0408	0.4479	0.0085	0.0130	0.1790	0.6990	0.3055	0.0000	0.7259
Satisfaction	0.3104	0.3104	0.2633	0.5040	0.5423	0.1876	0.0019	0.0856	0.7259	0.0000
method: spearman										

8 Gains in Skill/Knowledge and Motivation for the group w/o-gamified.Apprentice

Table 15: Correlation matrix of Gains in Skill/Knowledge and Motivation for the group w/o-gamified.Apprentice between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	1.0000	-0.2473	-0.7037	-0.1149	0.0866	0.0804	-0.4669	-0.4901	0.1585	-0.3892
Intrinsic Motivation	-0.2473	1.0000	0.6049	0.7469	-0.9039	0.4071	0.6846	0.3294	0.6712	0.7465
Interest/Enjoyment	-0.7037	0.6049	1.0000	0.2129	-0.4590	-0.0057	0.6537	0.5784	0.1327	0.6326
Perceived Choice	-0.1149	0.7469	0.2129	1.0000	-0.7869	0.1300	0.3811	0.1389	0.4849	0.3398
Pressure/Tension	0.0866	-0.9039	-0.4590	-0.7869	1.0000	-0.2665	-0.6475	-0.3365	-0.7353	-0.6019
Effort/Importance	0.0804	0.4071	-0.0057	0.1300	-0.2665	1.0000	0.3648	0.0698	0.3685	0.4109
Level of Motivation	-0.4669	0.6846	0.6537	0.3811	-0.6475	0.3648	1.0000	0.8411	0.5619	0.7788
Attention	-0.4901	0.3294	0.5784	0.1389	-0.3365	0.0698	0.8411	1.0000	0.2865	0.4792
Relevance	0.1585	0.6712	0.1327	0.4849	-0.7353	0.3685	0.5619	0.2865	1.0000	0.5205
Satisfaction	-0.3892	0.7465	0.6326	0.3398	-0.6019	0.4109	0.7788	0.4792	0.5205	1.0000
method: spearman										

Table 16: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation for the group w/o-gamified.Apprentice between motivation factors and in the third empirical study

round	Gains in Skill/Knowledge	Intrinsic Motivation	Interest/Enjoyment	Perceived Choice	Pressure/Tension	Effort/Importance	Level of Motivation	Attention	Relevance	Satisfaction
Gains in Skill/Knowledge	0.0000	0.3225	0.0011	0.6498	0.7325	0.7513	0.0508	0.0389	0.5300	0.1104
Intrinsic Motivation	0.3225	0.0000	0.0078	0.0004	0.0000	0.0936	0.0017	0.1820	0.0023	0.0004
Interest/Enjoyment	0.0011	0.0078	0.0000	0.3963	0.0554	0.9821	0.0033	0.0119	0.5996	0.0048
Perceived Choice	0.6498	0.0004	0.3963	0.0000	0.0001	0.6073	0.1187	0.5825	0.0414	0.1678
Pressure/Tension	0.7325	0.0000	0.0554	0.0001	0.0000	0.2850	0.0037	0.1722	0.0005	0.0082
Effort/Importance	0.7513	0.0936	0.9821	0.6073	0.2850	0.0000	0.1366	0.7833	0.1324	0.0903
Level of Motivation	0.0508	0.0017	0.0033	0.1187	0.0037	0.1366	0.0000	0.0000	0.0152	0.0001
Attention	0.0389	0.1820	0.0119	0.5825	0.1722	0.7833	0.0000	0.0000	0.2490	0.0442
Relevance	0.5300	0.0023	0.5996	0.0414	0.0005	0.1324	0.0152	0.2490	0.0000	0.0268
Satisfaction	0.1104	0.0004	0.0048	0.1678	0.0082	0.0903	0.0001	0.0442	0.0268	0.0000
method: spearman										

9 Gains in Skill/Knowledge and Motivation for the group w/o-gamified.Master

Table 17: Correlation matrix of Gains in Skill/Knowledge and Motivation for the group w/o-gamified.Master between motivation factors and in the third empirical study

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Table 18: Correlation matrix with p-values of Gains in Skill/Knowledge and Motivation for the group w/o-gamified.Master between motivation factors and in the third empirical study

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