

# 1 Summaries of Nonparametric Statistics Analysis for the improvement of right answers (Gain Score) from the pre-test to post-test

Table 1: Summary of Kruskal-Wallis rank test results for the improvement of right answers (Gain Score) from the pre-test to post-test

	chi.square	df	p.value	Sig
Age	3.026	2	0.220	
Sex	0.308	1	0.579	
AcademicDegree	0.569	2	0.752	
KnownDomainContent	0.356	1	0.551	
LikeDomainContent	0.708	1	0.400	
LikeActionGames	0.860	1	0.354	
LikeAdventureGames	1.077	1	0.299	
LikeFightingGames	0.026	1	0.873	
LikeFictionGames	1.212	1	0.271	
LikePlatformerGames	0.000	1	0.988	
LikePuzzleGames	2.672	1	0.102	
LikeRacingGames	0.013	1	0.911	
LikeMusicalGames	0.459	1	0.498	
LikeMMORPGGames	0.261	1	0.609	
LikeShooterGames	0.151	1	0.697	
LikeSimulationGames	0.967	1	0.325	
LikeSportsGames	0.004	1	0.950	
LikeStrategyGames	0.421	1	0.517	
LikeNovelGames	0.434	1	0.510	

Signif. codes: 0 “\*\*\*” 0.01 “\*” 0.05

# 2 Wilcoxon Pairs Statistics Analysis for the improvement of right answers (Gain Score) from the pre-test to post-test

Table 2: Descriptive statistic of the pair wilcoxon analysis for the improvement of right answers (Gain Score) from the pre-test to post-test

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
LikePuzzleGames.LikePuzzleGames.no:yes,greater.1	no	17	0	24.18	411	258	1.63	0.045	0.255	small
LikePuzzleGames.LikePuzzleGames.no:yes,greater.2	yes	24	0	18.75	450	258	1.63	0.045	0.255	small

Signif. codes: 0 ‘\*\*\*’ 0.01 ‘\*’ 0.05