

Effects of Video Games and Online Chat on Mathematics Performance in High School: An Approach of Multivariate Data Analysis

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Abstract : Regarding heavy video game players for boys and super online chat lovers for girls as a symbolic phrase in the current adolescent culture, this project of data analysis verifies the displacement effect on deteriorating mathematics performance. To evaluate correlation or regression coefficients between a factor of playing video games or chatting online and mathematics performance compared with other factors, we use multivariate analysis technique and take gender difference into account. We find the most important reason for the negative sign of the displacement effect on mathematics performance due to students' poor academic background. Statistical analysis methods in this project could be applied to study internet users' academic performance from the high school education to the college education.

Keywords : correlation coefficients, displacement effect, multivariate analysis technique, regression coefficients

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