The purpose of this study was to examine how gender pairings affect performance and attitudes in a serious gaming task. By identifying factors that can improve performance and attitudes of middle school students in STEM, it is hoped that the gender gap can be minimized. Male-male pairs had the highest scores for game progress, but there were no statistically significant differences with regard to total achievements. Male-males rated their skill higher than female-females and all rated skill higher on the final rating. All groups rated challenge lower on the final rating.

In terms of attitudes, for science and technology, there was a significant main effect for time, no main effect for condition, and no interaction effect such that ratings were higher (more positive) prior to the gameplay task. For collaboration, there was a significant main effect for condition (male-males higher than female-females), and a significant interaction effect: at pretest, no groups were significantly different, at posttest male-males were significantly higher than female-females and male-female and female-female groups had lower scores. This presents an opportunity to explore further implications for research and practice.