

Blake Caven | Discussion Leader Cover Letter

Subrahmanyam, Kaveri, and Patricia M. Greenfield. "Effect of video game practice on spatial skills in girls and boys." *Journal of applied developmental psychology* 15.1 (1994): 13-32.

Focusing on spatial skills, this paper assesses how playing video games impacts the player's spatial skills as measured by a series of tests, with particular emphasis on video games as "a means of informal education." Prior studies had "repeated findings revealing male superiority in [spatial skills]," and "[video] games can reduce some gender differences in the spatial skills of adults." This leads to the primary research question, "whether [increased spatial skills] could be obtained in a stronger form if we gave video game practice to children... when gender differences in spatial skills are first consistently detectable." Working with 10-year-olds, tests were administered before and after video game play. Both control and experimental groups played video games; however, the experimental group's game required "spatial skills of guiding objects, judging speeds and distances of moving objects, and intercepting objects." The control game was a word game which "does not involve any spatial skills." The games were picked to have "very little violence and aggression."

When analyzing results, "there were gender differences in baseline spatial performance scores," and "video game practice resulted in improved relative performance on the spatial tests whereas the [control group] did not." Also, "Initial spatial skill significantly predicted [final scores]". Regarding the performance difference in boys and girls, "greater previous video game experience" was mentioned but left unpursued. The study concluded "irrespective of gender, video game practice could serve as compensatory education for relatively weak spatial skills."