

Scientific Proof: Chess improves Reading Scores

By Beverly Byrne, USCF
Assistant Publications Director

A new scientific study lends authoritative proof to what chess coaches have suspected all along: chess improves reading skills.

New York City's District 9 mid-elementary school students took part in a comprehensive study program. Chess- and non-chessplaying students volunteered. The results were reported in a study by Stuart Margulies, Ph.D., and stated that the test scores of the students in the NYC chess program were outstanding compared to those of the control groups.

All of the subjects took a reading test at the end of each school year. Reading gains of the groups were compared. The control groups were made up of (1) all non-chessplaying classmates or (2) non-chessplaying classmates who had the same average reading scores at the beginning of the year as the players. The chessplayers showed greater gains in reading as compared to either of the other control groups.

Teachers who played chess served as coaches, ran the program, and were assisted by chess masters from the American Chess Foundation. During the 1991-92 school year, the District 9 program was greatly enhanced by the addition of computers supplied by IBM to the participating schools. This gave the students more chances to practice, to play against computer chess software, and to have the fun and the challenge of playing matches against other schools. This enhanced program was termed the *Castle Chess Program*.

While most students in District 9 performed below the national average in reading skills, *most chessplayers performed above the national average*. This confirms the power of the *Castle Chess Program* to develop enhanced reading scores.

An additional control group was needed to rule out the possibility that the above-average students (in this case the chessplayers) make gains even if the rest of the district does not. To test this, a sample of students in the top 70% of the class was taken from the same classes as the chessplayers. The scores at the beginning of the year of these high-scoring non-chessplayers were the same as the chess participants. At the end of the year, they showed no gain in percentile ranking—while the chessplayers gained 5.7 percentiles!

The research further indicates that although chessplayers score from the bottom level to the top level, they include a higher percentage of excellent readers than are found in the general District 9 population. This finding supports the possibility that chess programs function well as an Intellectually Gifted and Talented Program.

The teachers in District 9 are firm in their belief that their chessplaying students develop enhanced ego strength as they increase their chess competence. They proclaim that students who feel confident and good about themselves naturally learn to read better!

The chess masters concur that playing chess develops general intelligence, self-control, analytic skill, and increased ability to concentrate. Because of this, enhanced reading skills naturally follow. ~