

The Importance of Chess in the Classroom

by Michael David Wojcio

[Since 1978 Michael has been teaching chess to slow learners, average, and above average (gifted) students, in about 20 schools. Presently, he is teaching the "Royal Game" to slow learners at the Daron School in Livingston, N.J., and in four elementary schools, in Short Hills and Summit, in after school programs.]

In 1982, I started a summer school chess program at the Glenwood Elementary School in Short Hills. There are about 50 children who attend the chess classes every year.

For the last seven years, I have directed an annual children's chess tournament in Short Hills. This year we had 54 participants in four sections.

It is important that teachers realize:

- 1) that chess is not difficult to learn, and
- 2) that there are so many advantages for the students.

The fact that chess is easy to learn is shown by the USCF publications *Pawn & Queen* and *in Between* and *School Mates*, many videos, pamphlets, and good books of instruction. A few good instructional books are listed at the end of this article.

International Master Jeremy Silman is right on target when he states that chess improves concentration, visualization, and memory.

There is also a plethora of valuable ramifications enhanced by learning chess, and, in point of fact — it's fun!

In special education, the game for the slow learner means:

- 1) remembering the light square is on the right setting up the board, the names of the pieces, and becoming familiar with piece movement, the rules, and the concept of checkmate,
- 2) sequencing — putting the pieces on the correct squares at the beginning of the game,
- 3) fine motor skills — moving the pieces in a straight line — vertical, horizontal, diagonal, and L-shaped moves to the other color,
- 4) "basic" strategy, controlling the center, moving one's army out in the opening, so that no knights or bishops remain "sleeping" on the back rank, and,
- 5) thinking first, then moving.

Later, simple tactics and the en passant rule can be taught to some special education students. Tactics are short term plans, and strategy is the overall plan.

Even if a slow learner does not grasp all of this, he/she can still benefit by learning language, concepts, and fine motor movement.

Teaching the game to the average, above average, and gifted student, means all of this at a faster pace, plus more involved strategy and tactics.

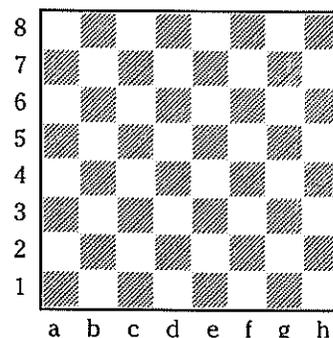
Chess is an art, a science, and a sport. Chess has this and

even more values for students.

Chess is more than a game, since the teacher can transfer many aspects of this motivational tool to other important subjects.

"Transfer of Learning" can take place when:

- 1) using algebraic notation. Learning the coordinates for files (eight vertical rows) and ranks (eight horizontal rows) can be a great introduction to reading street maps, or any x, y axis, graph, or presentation.

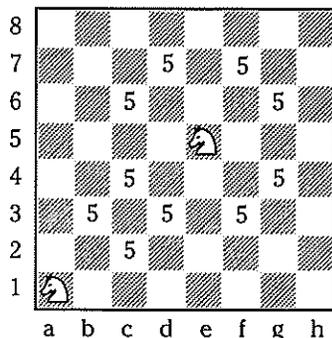


In algebraic chess notation, the numbers identify the ranks, and the letters identify the files, giving each square its identity.

2) Learning map skills also transfers to geography (longitude, latitude). I point out where my postal opponents live in the U.S.A. and in other countries. Chess is very popular in Europe and other continents.

3) Marking down what squares the pieces attack with pennies, dimes, nickels, and quarters, means reviewing math and money skills. This can relate to simple coin recognition, subtraction, addition, or even more involved multiplication, for different levels of students.

In addition, one can see that a piece in the center has more value, compared to one on the edge. Comparisons of value are applicable to other pieces.

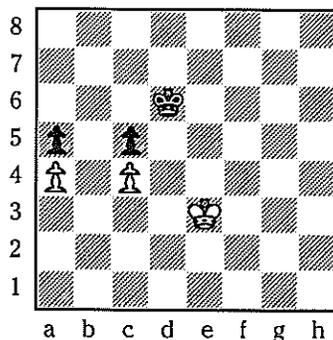


The knight on a1 attacks two nickels (ten cents). The knight on e5 attacks eight nickels (40 cents). Which knight would you prefer to have?

4) Another aspect of math is geometry, and geometry plays a big part in teaching basic mating patterns. In a king and queen versus king ending, the winning side tries to limit the moves of the opponent's king by gradually decreasing the square or rectangle (formed by the squares attacked by the queen), until the king is forced to move to the edge of the board. When this can not be accomplished with a queen move, the king moves closer to the enemy king (timing).

Triangulation (taking two moves to reach a square you could have moved to in one move) is an important concept in king and pawn endgames, and is an excellent introduction to triangles and timing.

The triangulation occurs on the e3, a4, and f4 squares. If the White king moves directly to e4, then Black replies Ka6 and the game is drawn, as neither



player can get past the one square buffer of the opposing king (kings can not come within one square of each other). By triangulating, White can win!

1. Kf4 Ke6 2. Ka4 Kd6 3. Kf5 Kc7 4. Kf6 (instead of a6 — another triangulation) Kc6 5. Ke6 Kb7 6. Kd7 (instead of d6 — another triangulation!) Kb6 7. Kd6 and now Black will lose one pawn, and then the other and the game.

5) Reading is one of the most important skills in education, and chess can be a great motivational tool. Last year, Harry, a 12-year-old, in one of my classes, hated to read (his reading skills were at the second grade level). Harry enjoyed chess and I let him borrow *Pawn & Queen and In Between*. He was so interested in learning more about the game that he read 36 pages of the 18 lesson booklet in one evening!

Also, books for average students, like Lewis Carroll's *Through the Looking Glass*, can be much more exciting for the children, since they know what chess is about.

6) Language is always important and chess literature will build vocabulary, as well as serve as an introduction to a few foreign words. Chess has

French words such as en passant (in passing), and en prise (in a position to be taken). There are German terms such as Zugzwang (move compulsion), and Zwizchenzug (intermediate move), and Italian words such as tempo (time), and Giuoco Piano (quietest game).

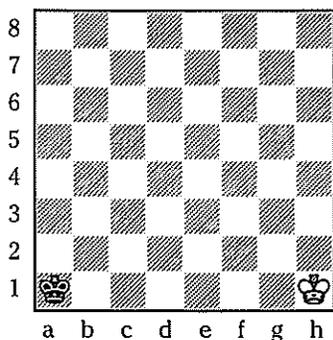
7) Perceptual Motor (fine motor movement) is enhanced by moving the pieces. For the slow learner and perceptually impaired child, hand-eye coordination is taught by using chess as an instructional tool.

7a) In terms of special perception, all students must learn not to over-look the way an opponent's piece, moves. The lateral movement of the queen and rook, the "backward" diagonal movement of the queen and of the bishop, — indeed, any combination of horizontal, vertical, or diagonal movement (enlivened by the L-shaped move of the knight), once mastered, leads to a better perception of special relationships.

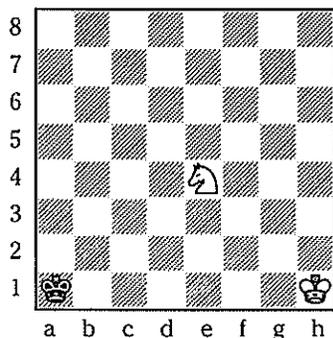
8) In my communicationally handicapped class last year, two of my students used an Apple Computer. They learned how to play chess against a strong chess program and enjoyed doing it. Chess is one vehicle for creating an interest in using computers.

9) Science means discovery. The chess board may be an introduction to graphs in science and math. As in science, there are always new discoveries (moves) that make chess fascinating. The scientific aspect of the game (triangulation, opposition, queening

squares: time, space and force relationships) can be used to demonstrate complex ideas in the simplest of terms.



White to move, who reaches the a8 square first?



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10) Chess is a major sport in the Soviet Union. It can be used to enhance physical education programs, even if the game is only linked to fine motor movement. One aspect of the offensive and defensive struggle depends on force — the strength of the pieces. Accordingly, if one loses a knight, he will eventually lose unless there is a great advantage in his position. One can find this in the different abilities of the players, and isn't a hockey team at a disadvantage when a player is in the penalty box?

Strategy, like controlling the

center and the mobility of one's pieces, is analogous to basketball, football, and other sports.

We have to use our mental abilities to reach a higher level of performance.

11) Many great chess players have tried to find the right "artistic" combination and have won many beautiful games doing so. Tactics such as a smothered mate with a knight, an interference theme, or on an even higher level, a speculative sacrifice of a major (queen or rook) or minor (knight or bishop) piece (trading force for time or position) — serve nicely to illustrate this type of cohesive beauty.

The board and pieces can serve as an introduction to various art forms. Chess sets have been made in plastic, wood, ivory, glass, onyx, metal — almost every material imaginable. Some ornate designs are simply spectacular!

One of my third grade classes, learning how to play chess during the lunch hour, staged a play entitled "The Queen of the Red Chessmen" — and made their chess hats (to represent the various pieces) in the art room, from available supplies. **12)** Chess has a long and great history. *The Morals of Chess* by Benjamin Franklin is an excellent essay. Franklin emphasizes chivalry and courtesy. Students have to make good decisions by being less impulsive. *Touch move* is a prime example. Franklin classifies it as using caution. The best player in the world during the Civil War period was Paul Morphy of New Orleans.

13) Friendships are very important. Through chess I have met friends that are youngsters, my age, and many who are retired. One is 80 years old. Elaine Pritchard, a very good chess player from England, has said, "It (chess) is an international passport and through the game you will have friends in all the cities of the world."

One of my opponents in the 1986 U.S. Open, held in Somerset, N.J., was from Japan. I have been playing postal chess with Akhiro for the last two years, and we are friends. Through postal chess, over the board tournament chess, and at local chess clubs, I have met many wonderful people.

The great thing about the game is that it bridges nationalities and generation gaps. Competitive chess is still dominated by men, but more women are playing than ever before. Two of the Polgar sisters from Hungary are grandmasters.

I have shared with you my enthusiasm for the art, the challenge, and the benefits of chess. Whether or not you have any experience with this fine game, give it your best consideration. After all, a potential world champion may be in your classroom. Chess has made my life fuller, more significant and more interesting! ♠