

CHESS AND ACADEMIC EXCELLENCE: CONTINUING THE PROCESS

Chess and Academic Excellence: Continuing the Process

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Abstract

Gardner (1983) proposed the *theory of multiple intelligences*. Chess challenges people and especially young people on many levels such as spatial (three-dimensional), mathematical, historical, linguistic, social, emotional, and moral to name a few. Given the anecdotal and academic efficacy witnessed by its growth, especially as a tool of cognitive development for children in fact for anyone at any age – chess is a tool of quiet excellence – a game best played in the mind capable of unlocking the depths of a soul.

## Chess and Academic Excellence: Continuing the Process

*Introduction*

A simple *Google*<sup>™</sup> search on key words such as: (1) chess and education; (2) chess cognitive ability; (3) chess and metacognitive development; (4) chess and autism; (5) chess and schools; (6) chess and end of grade testing or EOG (short hand version); plus, examples of other germane combinations are shown in Table (1). Ferguson (2009) has compiled key references that address the efficacy of various chess research as it applies to education.

<u>Key word <i>Google</i><sup>™</sup> search options</u>	<u>Search hits</u>
Chess and education	12,900,000
Chess and cognitive ability	45,700
Chess and metacognitive development	30,300
Chess and autism	851,000
Chess and schools	8,730,000
Chess and end of grade testing	87
Chess and music	24,300,000
Chess and mathematics	4,090,000
<b>Average</b> hits with chess and an educational reference $\cong$	6,368,386 <sup>1</sup>

**Table 1:** Google “search word” Hits Survey

The intent of this paper is not to reword the findings of these studies only to connect the reader to how they can logically support the aims and goals of the *No Child Left Behind (NCLB) Act* that is designed to instill accountability and strengthen in the nation’s educational system from an integrated chess education perspective. Teachers by their very nature can spark or unfortunately kill the desire for learning in a student at any point in life. The need to stir children, in fact anyone, toward self-discovered creativity as the first decade of the 21<sup>st</sup> Century comes to a close has never been more pressing. The issues of energy, banking, commerce (*aka* free trade), nuclear non-proliferation, social justice, improving civil discourse, eliminating

<sup>1</sup> These are just a few of the possible combinations regarding chess and other educational relationships that could be possible.

hunger, and the host of other critical issues are not simply black and white in terms of the resolve needed to implement meaningful and sustainable change. In September, 2009 President Obama<sup>2</sup> spoke to high school students in Northern Virginia challenging them and in fact us as adults as well saying *“We (the nation) need every single one of you to develop your talents, skills and intellect so you can help solve our (nation’s and the world’s) most difficult problems.”* Some two-hundred plus years ago Benjamin Franklin (1779), one of the 56 signers of the *Declaration of Independence*, observed that *“The game of chess is not merely an idle amusement. Several very valuable qualities of the mind, useful in the course of human life, are to be acquired or strengthened by it, so as to become habits, ready on all occasions.”* He goes on to comment that there are three key lessons learned when considering good and evil in the course of life’s journey. These three lessons learned from the playing of chess by the discipline achieved are these according to Franklin: (1) *Foresight*, (2) *Circumspection*; and, (3) *Caution*. In these, Franklin offers guidance on the efficacy of the game’s ability to teach life lessons. These implications in teaching say math or history two diverse fields of study can be considered relative to these guideposts are shown in Appendix (1). Franklin admonishes us to a behavior of mercy observing that if the game is not to be *played rigorously* (aka as you might for tournament level play) then he speaks to us in the language of the to time saying *“Snatch not eagerly at every advantage offered by his unskillfulness or inattention; but point out to him kindly, that by such a move he places his king in a dangerous situation, and by this generous civility you may, indeed, happen to lose the game to your opponent, but you will win what is better, his esteem, his respect, and his affection; together with the silent approbation and good will of impartial spectators.* Simply put, Franklin asked us to be teachers of the game when we are not full-fledged competitors and as we teach we set the example of civil behaviors.

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<sup>2</sup> This writer did not vote for him, but appreciates his comments regarding education, and his focus on skills and intellect development.

*Society is Improving*

A study in New South Wales, Australia (Howard, 2005) suggested that “rising population intelligence” seems to be an indicator that is “impacting the real world” given the “higher performance levels” at much younger ages of modern chess players. Shenk (2006) indicates that neuroscientists now believe playing chess may actually alter the brain structure, serving a sort of “good virus” making individuals smarter, thus being the remarkably omnipresent factor in the development of civilization. The youngest grandmaster now is age 12 (Howard, 2005) which is impressive considering the level of sophistication needed by someone so young at this level of play. The multiple intelligences needed in terms of emotional and social maturity to achieve this level of over the board success is incredible given today’s politically correct tendencies. Howard’s study also considers blindfold chess play. Blindfold chess<sup>3</sup> is when a chess player turns their back on the board with their opponent still facing the board and a third party impartially records the game using algebraic notation (See Appendix 2). Howard (2005) notes that the ability to see the whole board and all the pieces in relationship to their location on the board for each move is a grandmaster capacity while identifying that few average players are capable of this repeatable capacity in terms of multidimensional thinking. The use of Graphic Information System (GIS) *aka* geospatial mapping<sup>4</sup> to view all sorts of data from cross-sections of the earth’s crust looking for new energy reserves to viewing population or emergency response data in three-dimensional models remain critical as the educational system works to model critical-thinking skills. As reported at the beginning of the paper one can make infinite combinations juxtaposing the word chess with other educational key words. This was not to take up space. It was to demonstrate that chess is a proactive part of the human experience worthy of

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<sup>3</sup> The writer’s high school (1971-1975) chess club often played this form of chess in team practice sessions in order to strengthen of each player’s deep thought and analysis processes.

<sup>4</sup> The use of and capability to interpret special information is becoming an increasing tool in cross-sectional analysis.

inclusion – formally -as part the academic framework. In their article *Finding Future Perfect Senior Leaders: Spotting Executive Potential* Robert Roger, CEO, and Audrey Smith, Sr. VP, Developmental Dimensions International, Inc. state “*Like great chess players and baseball managers, the best executives always have the big picture in mind. Their ability to think two, three, or more moves a head is what separates them from competitors. This talent defines Conceptual Thinking.*” Perhaps this is the insight that Howitt (2009) is speaking to when she quotes the research of Buzan and Abbott (2005) that “*the two most important elements of developing mind maps are imagination and association, imagination allows the individual developing the mind map to make it more interesting, thereby making ideas easier to remember.*” While, “*Association relates to making connections between what the individual knows in a manner that triggers the memory.*” This conceptual mapping process is a fundamental aspect of chess education.

### *Leadership in Law*

Now the *Educate America Act*, Public Law 103-227, Section 308.b.2.E: paves the way with the use of “*Supporting innovative and proven methods to help the teacher’s ability to identify student learning needs and motivate students to higher order thinking skills, discipline, and creative resolution methods.*”<sup>5</sup> In fact, New Jersey passed the Chapter 35, Title 18A, *Chess in the Schools* such that “*Each board of education may offer instruction in chess during the second grade for pupils in gifted and talented and special education programs. The Department of Education may establish guidelines to be used by boards of education which offer chess instruction in those programs.*”<sup>6</sup> While chess may not be a way to make a living except for the few whose superior play can garner such financial and endorsement possibilities – it is a way to

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<sup>5</sup> (article) [www.chesshouse.com](http://www.chesshouse.com), Why Chess? Chess Facts

<sup>6</sup> (article) [www.chesshouse.com](http://www.chesshouse.com), Why Chess? Chess Facts

learn to critically think. Howard (2005) also points out that no major nation currently provides state support for chess, like the former Soviet Union did before the collapse of the *Iron Curtain*.

### *Automation's Impact*

Howard (2005) points out the automation environment facilitated more players being able to challenge others across the globe without leaving the safety of their homes. After beating the IBM computer *Deep Blue*<sup>7</sup> in 1996 the former World Champion, Gary Kasparov, was beaten by the revamped computer in 1997 making international news. While students today can choose from a number of sites on which to play chess to sharpen their skills against both computers and other humans several are currently used by this writer (a chess club coach) that cover not only the tactics of the game but the history as well. The following sites show this broad spectrum:

- <http://www.instantchess.com/> (play anyone available anywhere in the world)
- <http://www.shredderchess.com/play-chess-online.html> (play against computer)
- <http://www.chess-poster.com/index.htm> (learn chess, chess history, chess terms, etc.)
- <http://www.chessgames.com/> (extensive repository of chess games)

Appendix (3) demonstrates two of many chess games this writer has played online both in an effort to strengthen his own skills and to be able to prove the elementary school students he coaches opportunities to examine his games and determine for themselves how to study and critique their coach so they can learn at least some of those lessons Franklin suggested chess could teach.

### *End of Grade (EOG) Level Testing Efficacy*

Liptrap (1997) suggest that standard test scores were more than doubled for elementary school students in one Texas school in math and reading than for non-honors regular student who did not play chess in the schools club. Liptrap (1997) states that Dr. Robert Ferguson using the

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<sup>7</sup> [http://en.wikipedia.org/wiki/Deep\\_Blue\\_\(chess\\_computer\)](http://en.wikipedia.org/wiki/Deep_Blue_(chess_computer))

Watson-Glaser Critical Thinking Appraisal (CTA) found that average scores for chess verses non-chess participation improved annually between 1979-1983 nearly three-fold on average at rates of 17.3% to 4.6%. The school detailed rates for chess players and non-chess players for math and reading according to gender, special education, regular education, academically able and talented and gifted categories across four elementary schools. The school clubs selected had been in place for at least two years. Other researchers continue to uncover links to EOG improvements, though some of these studies have used limited data points in terms of the number of students involved over time. Continuous studies involving students from per-k through twelve appear not have been done due to a number of difficult logistic factors that have not yet been overcome. However, in his research summary Ferguson (2009) makes the case that other researchers have and continue believe in the educational benefits of chess.

### *Language<sup>8</sup> and Music<sup>9</sup>*

River's (2001) study though focused in language learning indicates the mental agility that some Georgian language learners had a *field-independent* nature by inference. This field-independence is the very nature of a high-caliber chess player at any age and certainly is for this writer. This writer's father was multilingual speaking nine languages and he played chess very well. When his father was observed speaking to a group of non-English speakers who also could not speak to each other the writer observed a *Rosetta Stone* effect as it were. The mental agility to be able to switch between languages without losing the message in translation is much like the chess player when they have to rapidly search the catalogue of games stored as reference ready in order to consider and select the correct move (situation strategy.) This ability to store codified data sets in the form of games by name and by whether the opening is generated from

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<sup>8</sup> [http://www.chess-poster.com/english/notes\\_and\\_facts/name\\_of\\_pieces.htm](http://www.chess-poster.com/english/notes_and_facts/name_of_pieces.htm). This allows kids to be interested in language development.

<sup>9</sup> <http://www.greschak.com/muschess.htm> the wealth of references here was amazing.

the king side or the queen side appears to allow both the chess player and skilled linguist the mental dexterity required for highly dynamic life events. Faris (1940) commented on the scores of a symphony saying that *they can appear so complex and chaotic to those with little understanding of such musical organization*. Perhaps this is why the melodic capacity of music marries so well with chess and it is little wonder why the world's unabashed recognized music elites such as Mozart or Brahms were reported to play chess. No record of how well they played appears to be recorded, except in their music if that is the measure of what otherwise is the victory of such genius.

#### *Experts vs. Novices*

Recently this writer's grandson has started to voice the need for autonomy saying "*I want to do it for myself*". This brings us again to Rivers' (2001) student of language learners. He points out the well established fact that the experts in any field approach learning differently than does the relative novice. In order to help children become experts as River (2001) reminds us the experts has the ability to notice features and meaningful patterns of information beyond novices since they have acquired a great deal of content knowledge that is organized in such a way as to reflect a depth of understanding of the subject matter at hand. This *expert vs. novice* approach in chess is reflected in the United Chess Federation (USCF) rating system. The rating system as established for US players ranges from the Class (E) (< 1100) to Senior Master (>2400) with the international standard <sup>10</sup> picking up for rating scores earned and maintained >2476 on average. These systems are not absolute <sup>11</sup> and are only indicator of strength and performance relative to other players of similar capabilities. Rivers (2001) highlighted Knowles (1995) and Bereiter (1992) stating that learning builds on experience (as does chess), where the learner is internally

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<sup>10</sup> Fédération Internationale des Échecs (FDIC) or World Chess Federation

<sup>11</sup> [http://en.wikipedia.org/wiki/Elo\\_rating\\_system#Implementing\\_Elo.27s\\_scheme](http://en.wikipedia.org/wiki/Elo_rating_system#Implementing_Elo.27s_scheme)

motivated and where the learning is problem centered. The expert therefore is in continuous motion for excellence while the novice does not *yet* possess the desire for such excellence. The story of Josh Waitzkin<sup>12</sup>, now an international master, may have never been told or his mastery (desire for excellence) been discovered had he not been first exposed to the game. He was a hidden expert whose novice-mask simply needed stripping away resulting after first learning the game at age six in a victory over his first chess master four short years later.<sup>13</sup> As with Rivers' (2001) experimental language learners chess players starting out in order to achieve expert status (2000 hours in a year minimum) would have to devote  $\approx 38.5$  hours/week ( $\approx 5.5$  hour/7 day-week). Expert status for elementary school children for the most part is then simply mastery of the basics and strategies of chess over time. Also, Bilalic (et.al., 2007) seems to confirm that practice over intelligence is the better predictor of developing chess skills, even in children with limited chess playing experience. However, Bilalic and team did not completely rule out intelligence playing a role in chess success. In his study entitled the *Sociological causes of genius* Faris (1940) stated that in order to handle complex games it was believed commonly that the chess player's nervous system was superior. However, this would not explain an *autistic chess expert*<sup>14</sup> in the form of William John Barrow, who at age fourteen after being diagnosed with autism at age two and just six years after had learned how to play chess at age eight won the Virginia Amateur Championship? Faris (1940) goes on to explain that experts over novices deal with units differently and organize them into what he calls *simplicities* so he can deal with simple thoughts – *aka* simple concepts. Behn (1987) addressed the efficacy of chess skills when it comes to public management. He admits that comparing chess players to public managers is a stretch, but the issue of problem solving is the same. However, the ambiguity in public

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<sup>12</sup> [http://en.wikipedia.org/wiki/Joshua\\_Waitzkin](http://en.wikipedia.org/wiki/Joshua_Waitzkin)

<sup>13</sup> <http://www.chessgames.com/perl/chessgame?gid=1328833> (Waitzkin vs Frumkin: 1987 · Sicilian Defense: Four Knights Variation)

<sup>14</sup> [http://www.associatedcontent.com/article/993286/autistic\\_chess\\_expert\\_wins\\_horatio.html](http://www.associatedcontent.com/article/993286/autistic_chess_expert_wins_horatio.html)

management does not lend itself at first to the logic of chess. However, Behn (1987) recalls the cognitive scientist, Herbert Simon, argues that areas like engineering, medicine and public management, along with chess are “*semantically rich environments.*” He goes on to state that chess masters not only have the benefit of this semantic richness in the form of stored prior games in long term memory, they also have knowledge about the advantages of the various stored positions that lead to winning scenarios. The expert public managers like the highly expert chess player can recall relevant information from long term memory in order to solve professional problems. As with the *Google* search that opened this paper the use of key words is like the use of key positions, the key word search or in this case the key move catalog shortens the seekers realm of possibilities or broadens these same possibilities given experience. It is this expert ability to define clearly by simplification that Behn (1987) stresses is the key difference in the novice manager and the expert manager that ability to recognize patterns and respond appropriately to them.

### Conclusion

In another paper to help establish the efficacy of a county-wide chess organization for youth conceptually known as the *Playing ACES* (Albemarle County / Charlottesville City Chess Experience and Education for Schools)<sup>15, 16</sup> a 501.3c in Albemarle County Virginia this writer has already done significant research regarding chess as a high impact activity that has the vast potential to improve cognitive capacity across the spectrum of public, private, and home school educational realms in this geography. So where is chess headed as a tool of education to develop critical thinking skills? If the SPICE (Susan Polgar Institute for Chess Excellence)<sup>17</sup> at Texas Tech University is any indication of where chess research is headed in the United States

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<sup>15</sup> Playing ACES is an effort recognized after discovering that no cohesive chess youth chess organization existed.

<sup>16</sup> Now Playing ACES (Active Chess Education Experience for all Students) – [www.playingaceschess.org](http://www.playingaceschess.org)

<sup>17</sup> <http://www.depts.ttu.edu/spice/> which has now relocated to St Louis, MO residing at Webster University (<http://www.webster.edu/spice/index.shtml>)

then it is going forward full speed ahead. As more countries internationally and more states in the United States address the lessons and skills gained as a natural extension of learning chess it will grow in importance as part of the bulwark of academic success driving both a passion for and love of learning using games that can channel both intellect and aggression to help make at risk and non at risk students of any strata not only better academic performers, as many researchers have suggested, but better citizens for the discipline learned in a society where disciplined lost is searching to be regained in ways that value the creativity of the human spirit without breaking that spirit, rather molding such spirit as a force for doing the right and not the expedient thing. Using chess to teach these subtle lessons is a blessing in self-discovery.

Finally, the former National Security Advisor and Secretary of State General Colin Powell once stated that, “*Great leaders are almost always great simplifiers, who can cut through argument, debate and doubt, to offer a solution everybody can understand.*”<sup>18</sup> In order to develop good, if not great leaders, chess has the capacity to transform complexity into simplicity and in that simplicity to understand complexity at new levels of depth not before achieved. As Oliver Wendell Homes once remarked – “*A mind stretched to a new idea can never go back to its original dimension.*”<sup>19</sup>

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<sup>18</sup> <http://www.brainyquote.com/quotes/quotes/c/colinpowel144992.html>

<sup>19</sup> [http://www.brainyquote.com/quotes/authors/o/oliver\\_wendell\\_holmes\\_jr.html](http://www.brainyquote.com/quotes/authors/o/oliver_wendell_holmes_jr.html)

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## Appendix (1)

Franklin's Lessons from Chess: Foresight, Circumspection and Caution<sup>20</sup>

Below is a practice application and extension of Franklin's derived meaning regarding chess in these their spheres of influence in the human experience.

## Mathematics

- **Foresight:** The ability as Steven Covey<sup>21</sup> wrote to "*think with the end in mind*". Being able to see the problem and its possible solution, but not yet knowing how to get there is able learning how to effectively plan. Students often need help in developing strategies that
- **Circumspection:** The ability to not see part of the problem but scan the entire problem so that one may see the entire equation and identify an out of place power or misidentified polynomial expression. In this way the chess learn to look at mathematical expressions so as not to waste time on needless calculation efforts.
- **Caution:** This because being able to carefully examine the path to a solution is grounded in sound mathematic principle, such as the concept of the *order of operations*. In this concept students are taught that when a math problem is presented that is not parenthetically managed there is an order to solving the chaos presented.

History<sup>22</sup>

- **Foresight:** Visionaries see the path forward and in the historical figures the lessons of courage, fortitude, prudence and justice are appreciated.
- **Circumspection:** The geopolitical sense is highly refined. Knowing the lay of the land in order to navigate its diametrically opposing views in order to arrive meaningful compromise is the art of achieving victory from sure the defeat. In chess we call this the draw.
- **Caution:** History, like chess, teaches caution. If you have seen what a policy of similar nature and force can do in the context of societal change and it had failed or has made the nation state weaker albeit wiser then a similar situation is presented, the caution placed before the leader is founded in experience of not only self but others. Chess presents the student a safe place in which to explore the mistakes and brilliance of others thus learning that history repeated can be a cruel teacher for the unprepared, the unwise and the fool hardy.

<sup>20</sup> *Morals of Chess*, Benjamin Franklin, [http://www.benfranklin300.org/\\_etc\\_pdf/Chess\\_John\\_McCrary.pdf/](http://www.benfranklin300.org/_etc_pdf/Chess_John_McCrary.pdf/) better still is this excerpt <http://dealingwithtroubledteens.com/2010/02/the-morals-of-chess/>

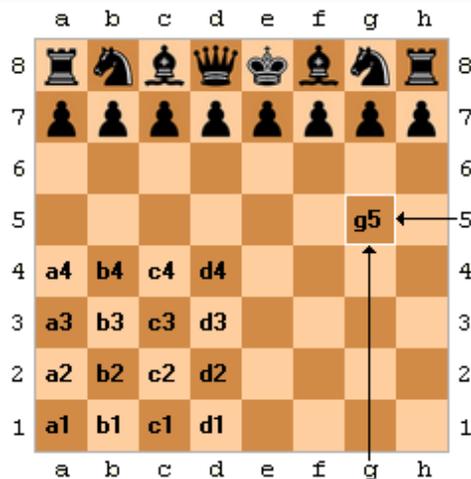
<sup>21</sup> Author of the *Seven Habits of Highly Effective People*, and other books with similar titles and varying focus for their intended audience.

<sup>22</sup> [http://flux.blogs.com/gamedesignandculture/chess\\_through\\_the\\_ages-1/](http://flux.blogs.com/gamedesignandculture/chess_through_the_ages-1/). This blog from Georgia Tech students is a very interesting of chess and its impact in history and would constitute entirely devoted to the history of chess on civilization.

Appendix (2)

Chess Notation Systems<sup>23</sup>

Algebraic chess notation is a simple grid coordinate system. A white rook or castle as it can be referred is always located at coordinates “a1”. This is vastly different than the descriptive notation system that coexisted with the algebraic system for many years. Now many modern boards come with the algebraic system as part of the exterior border making it very easy to manage the coordinates at which both, white or black can record moves with 100% accuracy (*aka* mathematical precision.)The following is an example of algebraic notation (1. e4 e5; 2. Nf3 Nc6; 3. Bb5 a6), where the first to move is always white. Descriptive notation for the same game recorded in algebraic notation would be (1. P-K4 P-K4, 2. N-KB3 N-QB3, 3. B-QN5 P-QR3).



Algebraic Notation System

QR1	QN1	QB1	Q1	K1	KB1	KN1	KR1
QR8	QN8	QB8	Q8	K8	KB8	KN8	KR8
QR2	QN2	QB2	Q2	K2	KB2	KN2	KR2
QR7	QN7	QB7	Q7	K7	KB7	KN7	KR7
QR3	QN3	QB3	Q3	K3	KB3	KN3	KR3
QR6	QN6	QB6	Q6	K6	KB6	KN6	KR6
QR4	QN4	QB4	Q4	K4	KB4	KN4	KR4
QR5	QN5	QB5	Q5	K5	KB5	KN5	KR5
QR5	QN5	QB5	Q5	K5	KB5	KN5	KR5
QR4	QN4	QB4	Q4	K4	KB4	KN4	KR4
QR6	QN6	QB6	Q6	K6	KB6	KN6	KR6
QR3	QN3	QB3	Q3	K3	KB3	KN3	KR3
QR7	QN7	QB7	Q7	K7	KB7	KN7	KR7
QR2	QN2	QB2	Q2	K2	KB2	KN2	KR2
QR8	QN8	QB8	Q8	K8	KB8	KN8	KR8
QR1	QN1	QB1	Q1	K1	KB1	KN1	KR1

Descriptive Notation System

The descriptive notation system does not lend itself to a fixed coordinate management (*aka* a grid coordinate system) and for the most part has been abandoned as a record keeping system by modern players and in modern chess text.

<sup>23</sup> [http://en.wikipedia.org/wiki/Algebraic\\_chess\\_notation](http://en.wikipedia.org/wiki/Algebraic_chess_notation) & [http://en.wikipedia.org/wiki/Descriptive\\_chess\\_notation](http://en.wikipedia.org/wiki/Descriptive_chess_notation)

## Appendix (3)

Online Chess Games Played <sup>24</sup>

<b>White</b> <b>1650</b>	Black 1158	<b>White</b> <b>1650</b>	Black 1158	<b>White</b> <b>1662</b>	Black 1832
1.d4	f6	46.Ke4	Nf6+	1.d4	e6
2.Be3	e5	47.Ke5	Nd7+	2.a3	d5
3.dxe5	fxe5	48.Ke4	Nf6+	3.Be3	Nf6
4.g3	Qf6	49.Ke5	g4	4.f3	Bd6
5.Nf3	Bb4+	50.h4	Nd7+	5.Bf2	b6
6.c3	Bd6	51.Kf4	Nf6	6.e3	c5
7.Bg2	Ne7	52.Ng3	Rh7	7.Bb5+	Bd7
8.O-O	Nd5	53.h5+	Nxh5+	8.Bxd7+	Nbxd7
9.Bg5	Qg6	54.Kxg4	Nf6+	9.Ne2	O-O
10.Qxd5	Qe6	55.Kf3	Rf7	10.O-O	Qc7
11.Qxe6+	dxex6	56.Rf5	Kg7	11.Bg3	Nh5
12.Nbd2	O-O	57.Rg5+	Kh6	12.Bxd6	Qxd6
13.Nc4	b5	58.Rf5	Kg7	13.f4	Nhf6
14.Ncxe5	h6	59.e4	Kf8	14.Nbc3	Rac8
15.Be3	Bb7	60.Kf4	Ke7	15.f5	a6
16.Nd4	Bxg2	61.f3	Ke6	16.Ng3	cxd4
17.Kxg2	Bxe5	62.Re5+	Kd6	17.exd4	b5
18.Nxe6	Rf7	63.Nf5+	Kd7	18.Qd3	h6
19.Bd4	Nc6	64.Kg5	Nh7+	19.b4	Qc6
20.Bxe5	Nxe5	65.Kg6	Rf8	20.Nge2	Qc4
21.Nd4	a6	66.Kxh7	Rf7+	21.Qf3	Qc7
22.h3	c5	67.Ng7	Rxf3	22.fxe6	fxe6
23.Nf3	Nc4	68.Nf5	Rh3+	23.Qf4	Qb6
24.b4	cxh4	69.Kg7	Rd3	24.Rac1	Ne4
25.cxb4	Re8	70.Kf6	Rd2	25.Qe3	Ndf6
26.e3	a5	71.Re7+	Kc6	26.Nxe4	Nxe4
27.bxa5	Nxa5	72.e5	Kd5	27.Rxf8+	Rxf8
28.a4	Nb3	73.Rd7+	Ke4	28.Rf1	Rxf1+
29.Ra2	bxh4	74.Rxd2	Kf4	29.Kxf1	Qc7
30.Rxa4	Rff8	75.e6	Kf3	30.Ng3	Nxg3+
31.Rf4	Nc5	76.e7	Kf4	31.hxg3	Qc6
32.Rxf8+	Rxf8	77.e8=R	Kg4	32.Qd3	Qc4
33.Rd1	g5	78.Rg2+	Kf4	33.Qxc4	dxh4
34.g4	Rf7	79.Nh6	Kf3	34.c3	Kf7
35.Rd6	Kg7	80.Rg4	Kf2	35.Kf2	Kf6
36.Rc6	Ne4	81.Re5	Kf3	36.Kf3	<b>1/2-1/2</b>
37.Re6	Nc5	82.Rf5+	Ke3		
38.Re5	Nd7	83.Rg3+	Ke4		
39.Ra5	Nf6	84.Ke6	Kd4		
40.Nd2	Rd7	85.Rf4+	Kc5		
41.Nf1	Kg6	86.Nf7	Kc6		
42.Ng3	Re7	87.Rc3+	Kb7		
43.Kf3	Rf7	88.Rb4+	Ka6		
44.Nf5	h5	89.Ra3#	<b>1-0</b>		
45.gxh5+	Nxh5				

<sup>24</sup> [www.instantchess.com](http://www.instantchess.com). This writer's opponents have included players from Russia, Great Britain, Brazil, China, Canada, Singapore, Israel and the USA.

These are two games played online recently that represent play with opponents whose skills are at both ends of the chess playing spectrum. The 1158 rated <sup>25</sup> player is a Class C rated player whose skills still need refinement with more play time. This player has only been playing online for < 6 months. The 1832 rated player is a Class A rated player who has been playing online for many years. This writer who once held a USCF rating is progressing currently with an online rating of 1721 or a class B player at present but whose rating for these games was 1650 and 1662 respectively achieving one win and one draw leading to the current 1721 online rating.

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<sup>25</sup> [http://en.wikipedia.org/wiki/Chess\\_rating\\_systems](http://en.wikipedia.org/wiki/Chess_rating_systems). This explains the relative strength of chess players based on their play against others players. The rating system is a relative indication of play strength.