



## Learning Opening Lines & Ideas

**Quote of the Month:** *“The importance of a chess concept is directly related to how often it occurs. For example, managing your time or how you think affects each move and thus are both very important. The same, or similar positions early in the opening occur quite frequently so, from that perspective, understanding those positions is also relatively important.”*

### COLUMNISTS

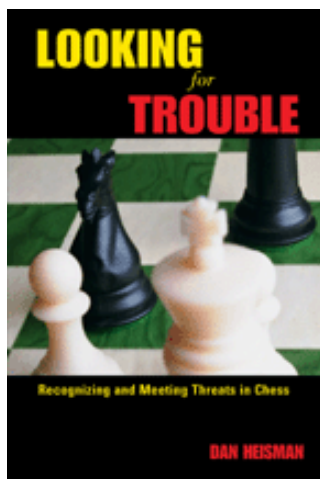
## Novice Nook

Dan Heisman

When a player first starts out to learn the openings, he gets the most efficient use of his time by learning:

1. General opening goals and guidelines,
2. A few main opening sequences (tabiyas), and
3. How to avoid making the same mistakes over and over.

Teaching you how to learn these things instead of just showing you a set of acceptable opening sequences is definitely a case of “Give a man a fish and he eats one meal; teach a man to fish and he eats forever”.



### Learning General Goals and Guidelines

There is a big difference between trying to memorize lots of lines and variations from an opening book and learning how to play opening moves wisely. I have two theories that apply:

1. The weaker the player, the more he should learn about the general ideas in chess; the stronger the player, the more he needs to know how to play specific positions, for example those that occur in his openings.
2. The weaker the player, the more important it is for him to follow general opening principles; only stronger players who understand these principles well should think about exceptions.

Suppose you learn that in the Closed Ruy Lopez, after **1.e4 e5 2.Nf3 Nc6 3.Bb5 a6 4.Ba4 Nf6 5.O-O Be7 6.Re1 b5 7.Bb3 d6 8.c3 O-O**, playing **9.h3** (the tabiya) to prevent 9...Bg4 is more accurate than 9.d4, which allows 9...Bg4 with pressure on d4. This particular idea is well known among stronger players; however, the difference between the two moves is so small that Fritz's evaluation function rates 9.d4 as slightly *superior* (!) to 9.h3 on a 14-ply search (+0.14 to 0), so if 9.h3 is superior the difference is not great!

How useful is it to know that, in the Ruy Lopez sequence, 9.h3 is preferred? That greatly depends on your rating level, assuming you usually play opponents around your rating:

**600:** You probably don't have the board vision to remember the nine-move sequence! But that is OK because, even if you did, your opponents would never stumble across this sequence anyway.

**900:** Even if you do remember the sequence, almost none of your opponents will play it. And on that rare occasion when they do, it will not make any difference since the player who plays the best tactically will win in either case – usually someone at this rating level drops a piece or more in the middlegame.

**1200:** You may run across this sequence occasionally but, again, the player who plays better tactically will prevail. Your winning percentage would hardly be affected by playing 9.d4 or 9.h3.

**1500:** At this level of play knowing the sequence idea starts to make a small difference. You might get a slightly more comfortable game with 9.h3 but, on the other hand, your opponents who do know the book will probably have only studied 9.h3, and may not even know why 9.d4 is supposed to be inferior. So by playing 9.d4, you may wind up benefiting by taking them out of their “main line book”, especially if you know something about the 9.d4 lines or even just follow Fritz 9.d4 analysis (which is NOT the main line!).

**1800:** At this rating most of the players are aware of the difference and why it is supposed to be a difference. It may not greatly affect the probability of victory if you chose one line or the other, but at least the Black players will have some idea as to what to do, theoretically, if you play the rarer 9.d4.

**2100:** At this level almost all the Black players will know what to do and probably have some experience in slow and speed games playing against 9.d4. Any surprise value is mostly lost, and if there is a weakness to 9.d4 (or whatever sideline you choose) it may well affect the outcome of the game.

From this perspective, we can quickly conclude that studying lots of opening sequences that go as deep as the one including 9.h3 is likely to get diminishing returns on your study time until you are at least an intermediate player.

This leads us back to the supposition that first one must study general guidelines (or “principles” or “rules of thumb”) that apply in most/all opening positions before it is helpful to learn specific moves that only apply to unique positions. What are some of these general guidelines that should be used in the opening? One way to study these guidelines is to classify them according to goal. The major goals of the opening include:

1. Activate ALL your pieces (One can state that *the main goal of the opening is to safely and efficiently activate all your pieces*. This is similar to stating *the main goal of the opening is to reach a playable middlegame*). Note in this goal while “pieces” in this context does not mean pawns, a certain number of pawns will be moved to both gain/control space and open lines for pieces.
2. Try to get some control of the center (not necessarily occupation), and
3. Get your King into safety (can be interpreted as a special, separate

aspect of #1)

Keep in mind that *the overall goals of the game* (keep your King safe; keep your pieces safe and if you can win material safely, strongly consider doing so) not only occur throughout the game, including the opening, but *usually take precedence over phase-dependent goals and guidelines*, like those just for the opening. In other words, if it comes down to clearly losing/winning material or development, 85% or more of the time material is more important so long as the material had been even.

With these goals in mind, we can list some of the more important guidelines for each:

### **Piece Activation Guidelines**

1. Move every piece once before you move any piece twice unless there is a tactic for either side.
2. Put your Bishops and Rooks onto open lines, or at least where you can create open lines via break moves.
3. Use break moves to weaken your opponent's pawn structure and open files for Rooks and Queens.
4. Develop Knights before Bishops (this often means the Knight on each side before the corresponding Bishop, rather than both Knights before both Bishops).
5. Develop the pieces on the side you are going to castle before developing pieces on the other side
6. The player who uses his Rooks best usually wins the opening.
7. Don't put your Knight in front of your c-pawn in double d-pawn openings. In general, don't put your pieces in front of your break moves (see the Novice Nook *Break Moves: Opening Lines to Increase Mobility*). Even more generally, pieces are often better placed behind pawns than in front of them, but this has many exceptions! Absolute beginners usually move out too many pawns, but then more advanced beginners and even lower intermediates usually move out too few!
8. Don't make trades that help develop your opponent's pieces.
9. Don't give up the bishop pair unless you get at least half a pawn compensation for it.
10. Move more than two pawns, but six is probably too many! In general, smooth pawn development, with at least two pawns side by side on the fourth rank, is preferable to putting most of your pawns on the same color, leaving the opposite colored squares as a weak square complex. This guideline also affects Center Control (see next set of guidelines).
11. Moving a pawn to h3 (or h6) to allow your Bishop to develop to e3 (or e6) without harassment by a Knight on g4 (or g5) is *usually* more justified than playing h3 (or h6) to prevent a Bishop pin or a Knight attack on f2 (or f7).
12. Don't move your Queen out too early if it can easily be attacked and forced to move again. In general, don't move any piece out that can be attacked by a piece of lower value and forced to move again (unless your opponent's attack on your piece results in a weakening for him).
13. Don't pin the opponent's king's Knight to the Queen before your opponent has castled (a Lasker rule), especially in double e-pawn

openings.

14. Move a piece where you know it must go before you move another piece where you think it may go. The extra information of your opponent's move may help you decide where the latter is better placed.

### Control of the Center Guidelines

1. Develop your pieces to point (have future moves) toward the center.
2. Knight on the rim, your future is dim/grim (but later it can re-activate!).
3. At least one center pawn should be moved. Corollary: If your opponent lets you safely move both center pawns up two squares (to e4 and d4 for White especially), this is often the correct idea, but don't wait until the next move when it may be too late. For example, in openings like the French, Caro Kann, or Pirc, Black just lets White play 1.e4 and 2.d4, and those are the main lines! For White automatically to play 2.Nf3 is usually considered at best inaccurate in those openings.
4. A piece does not have to occupy the center to control it – for example, a fianchettoed Bishop on g2 or g7 attacks two central squares (yes, even if your Knight is on f3, since that temporary blockage should be under your control).

### King Safety Guidelines

1. Castle early and often. Humorous, but you get the idea!
2. Castling is not a “waste of time” – in fact it is the only opening moves that allows you to get two pieces toward where you want them to go, so in that sense it is the only opening move that *gains* time!
3. Don't castle “into an attack”
4. Don't push too many pawns needlessly in front of your King – but keep in mind that with the pawn structure that results from some openings you may need to do so in the *middlegame*!
5. Castle on opposite sides (with Queens on the board) only if you think that your attack will get there before your opponent's. *If you have already gotten a very good position, it is often right to castle on the same side* since the extra wildness of opposite side castling games often cancels out other advantages – even small material ones!

Very strong players understand these guidelines and when to break them, so it is common to see a grandmaster move a piece several times in the opening, but one must learn to walk before one can run. Until you know, understand, and are able to follow the guidelines, it makes sense to abide by them (at least the major ones) consistently and as best possible. Don't try to “be like GM Mike” and in doing so end up making a bad mistake trying to figure out and play exceptions. For example, more than 80% of the time weaker players who move pieces twice in the opening do so erroneously (that is, they do so when they are not in book, those pieces are not threatened, and there is no forced tactic). With this high percentage of error, it makes sense for those players to not to waste their time figuring out exceptions at all! Most errors I see like this are the result of players trying to make chess a lot harder than it is – unless there is a forced tactic (not just an easily met threat), get the next piece out!

## Learning Opening Tabiyas

Often a student wants an instructor to give them a “pill” so that they can learn a new opening! Sure, it is more *helpful* per unit time for you to pay an instructor to teach you openings, and I have several prepared lessons on the tabiyas for several common openings wherein I explain the reasoning behind the move sequence. An instructor can – and should – give the student a good “kick start” in the form of an overview, including the understanding of the reasons behind the tabiya and where in general the pieces and pawns tend to be placed in that opening’s early middlegame. However, it is neither *cost* nor *time effective* for you to pay an instructor to do this on *every* opening idea that you run across. An occasional lesson on an opening sequence is helpful, but does not make a big dent into what lower intermediate players eventually need to know to become strong intermediates.

Therefore, it is much better if a student learns how to study opening lines. Sure, if you look up opening sequences and don’t understand them, head for the nearest strong player/instructor to ask why, but at least attempt to do it yourself first.

Two books that are not encyclopedias but rather more like compendiums of tabiyas, are *Winning Chess Openings* by Yasser Seirawan and *Standard Chess Openings* by Eric Schiller. These books are meant to be more “talky” than encyclopedias, but still attempt to cover many common opening lines, and are thus not nearly as detailed as books specifically tailored to one opening – a good compromise. Alternatively, you can purchase a software program like *Bookup* and then one of its electronic “books” and go thru lines, or of course purchase a book on a specific opening. These latter options are always available if cost is not a factor!

When learning new sequences, it helps to play it over the tabiya a couple of times with the book open and then try to remember and replay the sequence with the book closed. Tip: It is easier to remember a line if, after each move, you ask yourself, “What are the opponent’s threats from the previous move?” If there are some, they usually need to be met by a logical reply. If there are none, then ask yourself, “Which piece needs to be developed next?” and that usually helps you find a logical candidate move, hopefully the one you are trying to remember. Another great tip is to study the tabiya with a friend, and then take turns playing each side. Afterwards, you might even play a speed game or two (or ten!) with those moves required. In no time you will know the sequence! It generally takes me about 20 minutes to put a tabiya into my long-term memory.

## Avoiding Continual Repetition of Mistakes

If you asked me which advice I give to students is second least followed, I would say it was the guideline mentioned above, *Move every piece once in the opening before you move any piece twice, unless there is a tactic*. But if that is second least, which advice is followed even less? It would have to be:

*After each game (or series of fast games that are recorded, for example by the*

computer) look up your opening(s) using as a minimum a single-volume opening encyclopedia: Nunn's Chess Openings (NCO) or Modern Chess Openings-14 (MCO) or an opening database (via ChessBase, ChessLab, Fritz, ChessMaster, etc.). Use your source(s) to answer the question "If I had to play this opening sequence again, where would I deviate?" In this way you slowly but surely learn opening lines and avoid all major traps. In his practical, excellent, but somewhat advanced book *Grandmaster Secrets: Openings* GM Andrew Soltis states "**How much book do I need to know?**...The bare minimum is: You need to know the traps that come up in your openings"!

Regular readers to this column know that I strongly discourage lower rated players from memorizing of tons of opening lines in favor of rigorous tactical study along with patient learning, understanding - and following! – of opening principles. However, as you get stronger you are going to have to learn specific opening lines, so everyone should know at least one reasonable way this can be accomplished. Of course stronger players desire more specific information on their favorite openings than they can get in a single-volume opening encyclopedia, so they purchase books that provide not only in more (often gory) detail, but also have the satisfying explanations that the general reference books cannot contain. This *Novice Nook* assumes you are at the level where you don't want to keep repeating basic opening mistakes (such as falling into standard traps or playing clearly inferior lines), and for this purpose either NCO or MCO is usually perfectly adequate.

In his book *Rapid Chess Improvement* Michael de la Maza gives exactly the same advice about religiously looking up your games to avoid making the same mistake. Interestingly, I had been giving this advice for years before its publication, but I don't think Michael had ever seen my suggestion. Hopefully, this coincidence shows that my suggested method is very effective and logical – it prevents you from making the same mistake twice, which is a key to continual (and not necessary rapid!) improvement. It is truly a case of *a long journey starts with a single step*.

Why is this advice rarely followed? The reasons given to me vary:

1. "I don't know how to use the book."
2. "It is too tedious."
3. "I can't remember what I see after I look it up."
4. "I will never play that sequence again."
5. "The lines my opponents (or I) play are never in the reference books."

Let us consider each:

*I don't know how to use the book.* Learning to use the encyclopedic and table-oriented MCO and NCO is pretty easy with about 10-15 minutes of practice. *MCO runs its moves down a column while NCO runs its moves left to right.* This helps explain the meaning of all the blank spaces in the tables. In MCO when a space is blank it means that that move is the same to the first one you can find to the *left* of it; similarly, in NCO a blank space means the move is the same as the first one you can find *above* it. MCO uses a normal table of contents to tell you where to find each opening, NCO has a key in the final

few pages – these NCO key pages are just like its other table pages except they only cover the first few moves and the key table notes tell you which page contains the remainder of that opening’s information.

*It is too tedious.* If you are eventually going to become a strong player you indeed will have to learn a lot of opening ideas and sequences. This is time consuming, but, if it is enjoyable and profitable, you will not have much problem doing it; hopefully you will be playing chess for a long time, so your learning period will be spread out over several years. If you are looking for shortcuts, sure you can play a non-booky opening, and that is plenty sufficient for 97% of us. But today even the most ‘non-book’ openings have a fair amount of opening theory, so today ‘non-book’ opening is almost an oxymoron. Also, if you learn one main sequence at a time and then practice it, that is a lot less tedious than taking an opening book and trying to pour through hundreds of lines in an afternoon. If you do the latter, you likely will never see most of those lines, even if you could remember them all. The moves from your games are often the most likely ones you will see again.

*I can’t remember what I see after I look it up.* – It is true that if you understand what you see, you will remember it better. Some of the tips in the previous section on learning tabiyas should help. Try not to just look it up, say “Oh!” and forget it forever.

*I will never play that sequence again.* This depends on whether you were experimenting or not. If you were trying to play your best and fell into an opening trap, then surely you might play that sequence again up until the point of the trap, and you should make sure you understand what you should do instead, because that sequence (up to the trap) will surely occur again.

*The lines my opponents (or I) play are never in the reference books.* This is a common complaint; of course “never” is a strong word; more likely your weak opponent played a silly moves like an unnecessary ...h6, and that kind of wasteful move is not covered since it basically loses a tempo (But just in case, see the Novice Nook *It’s Not Really Winning a Tempo!*). There are several possibilities:

(A) The move played was so terrible that it instantly loses material, and the author of the book/database did not want to waste space including moves that are obviously bad and need no mention of how to refute. To check to see if this is the case, put the game on any reasonable chess engine and let it tell you what to do. If there is such a sequence, the engine will show that the side to move has an immediate tactic and provide the Principal Variation (PV). One way to determine this is if the evaluation of the PV jumps from that of a reasonable opening sequence (where White usually has a small edge of about +0.1 to +0.3) to a large edge, say one pawn or more advantage for either side.

(B) The line played is innocuous for White, such as playing h3 or a3. White is always striving to get an advantage out of the opening. Moves that make no attempt to do so may not be

included in a standard text or database. If that is the case, then Black should continue making reasonable moves and should get a reasonable game; often the recommended Black move against the normal White move can be played with even more effect against the innocuous one (but not always, so be careful!). If White makes such an innocuous move, often Black gets near equality or better; but don't be upset because you can't "win" or "instantly punish" White's innocuous move.

(C) The move is a reasonable sideline that cannot be addressed in a single-volume encyclopedia. In this case the software databases may address the line, or it may be addressed in detail in a book on that opening. Of course it is always possible to see what a chess engine suggests even if you do not have a specific book on that opening!

The good news is that if your opponent played a terrible move, then you were not falling into a trap, but rather the reverse: you want to make sure that if a future opponent plays the same move, you are ready to take advantage of it!

The tabiya process in the previous section offers a great foundation that can be extended via the process in this section. Think of your opening knowledge as an upside-down "tree" of moves with the first move at the top of the main trunk. Then the tabiyas form the main trunk(s) and the new moves from each game are a branch. Use the two processes to steadily extend your current mental opening "tree". Be patient; if you attempt to learn too much at one time and you will not remember it, anyway.

Conclusion: If you learn about good opening principles, follow them, learn a few tabiyas, and start adding sequences – even if one move at a time - then you will soon be well ahead of other players with similar experience. You will be able to avoid repetitious mistakes and that is a key to improvement: *there are so many possible mistakes in chess that players who make the same ones many times are inevitably much weaker than those who only make them once or twice, almost without regard to their other talents!*

**Reader Question** *In one of your comments you write: "At the very start of the game a tempo is worth roughly a third of a pawn - and more later!" Why is it worth more later?*

**Answer** That's easy! Suppose you give odds of one tempo (an extra move!) to anyone which they can take any time during the game. Would that be worth more than pawn odds? Of course - it would be worth at least queen odds! So at most points during the game, except before the pieces clash as during the first few moves, if you could have an extra tempo that would be worth a lot more than a third of a pawn.

**Question** *You sometimes mention that it is sometimes hard for your students to see that a specific move or line is "forced". In one of my last games while playing Black, I won by trying to find the most forcing moves in order to regain some of the lost ground after making a mistake in the opening (3rd move actually). I didn't look especially for "Threats" early in the opening (a*

*double “d” opening and guess where I put my queen side Knight?) and my opponent immediately tried to punish me for my mistake. It is now quite clear in my mind that each and every move has to be played with the same thought and care.*

**Answer** Not only true, but an important epiphany (take note!) for many players. This may be a good time to define a “forced” move: A move is forced if all the other moves are clearly worse. For example, if you are winning and only one move keeps you winning then that move is "forced" if you want to win. Similarly, a move is forced if it is the only one that keeps you in the game. For example, the only move that does not lose a piece can be considered forced. On the other hand, "forcing" moves are offensive ones that cause your opponent to do specific things in defense: almost all forcing moves are checks, captures, and threats. Therefore, when analyzing, you almost always look at forcing moves for both sides first because they are the most critical and not considering one or more and thus possibly allowing your opponent to play an unstoppable threat likely would change the evaluation of the position (from won to drawn or lost, for example).

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Dan welcomes readers' questions; he is a full-time instructor on the ICC as Phillytutor.

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