

How to Study Tactics

Understanding how to train your tactical eye, whether using books or solving online.

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ICHARD TEICHMANN MIGHT have been exaggerating, but mastering tactics is the quickest way to improve in chess.

Once you start spotting tactics in your games with greater frequency and ease, you get a better understanding of how the pieces interact in fruitful ways, and the game becomes both more logical and more fun. The prescription that consistent problem solving is crucial for improvement is a nearly universal training tip, and with very good reason.

As someone who had an “old school” upbringing in chess, I am used to, and still prefer, using books to train, and solving puzzles on a physical board. It’s my experience that it is very helpful for tournament players to solve puzzles on a physical board for visualization purposes. However, I also recognize that there are plenty of resources for tactical work online, many of which can be very helpful.

So how should you study tactics, and what sources should you use? Let’s be a bit more precise, and assume that you have set an hour or two aside for study, and you want to focus on solving. Where to begin?

I think it is very important to be disciplined about your study time. Take care to

“Chess is 99% tactics”

— Richard Teichmann

avoid interruptions and — this is key — do not move the pieces while solving. There are different philosophies when it comes to writing down your analysis as you solve, but I prefer to do it, as it keeps me honest and prevents the “of course I would have seen that” phenomenon when the solution

mentions moves I hadn’t considered. If there are important sub-variations, write those down too.

PUZZLE RUSH

I love *Chess.com*’s Puzzle Rush (or Puzzle Storm, the Lichess equivalent) but I wouldn’t recommend doing more than two or three sessions during your training. While Puzzle Rush is a good way of reinforcing some basic patterns, doing too many can devolve into bad habits, such as being a bit knee-jerk in move selection and emphasizing known patterns over calculation. That said, I do recommend doing this kind of work as a warm-up for online tournaments, and I will sometimes use my Puzzle Rush score as an indication of my engine levels and alertness.

ONLINE TACTICS TRAINERS

All of the major chess websites offer an endless supply of tactics in traditional tactics trainers. Unlike Puzzle Rush, there is no time limit for solving individual problems, which allows the user to dive into the position. And puzzles can be broken down into themes and categories, allowing the user to train specific areas of the game or specific tactics.

Nevertheless, I see two potential downsides to solving tactics online. First, when you make your move, you get an immediate response from the platform. While this in some ways mimics an actual chess game, it can lead to laziness and our making a move that “looks right” because we know there will be immediate feedback.

Second, sometimes the response is the computer’s top choice, and not the key element of the tactic from a human perspective, i.e., you sacrifice your queen to achieve a checkmate in four moves, but the computer’s

engine-driven response is a move that avoids checkmate by throwing away material. This lets you know that your first move is correct, but not necessarily the entire calculation. This is why it is important to slow down and calculate all the branches before trying to solve, and you might consider writing down your analysis here as well.

If you are solving puzzles online and start getting several wrong in a row, remember to avoid getting too emotional. Step away from the computer for a few minutes, or pull out a chess board and set up the position before trying again.

BOOKS

Despite the benefits of online solving, I still prefer books when I want to sharpen my tactics — both for myself, and also for my students. I tend to look for books that are divided into themes, but that also offer sections where the themes are randomized. This is more representative of a real tournament situation; after all, we don’t have anyone whispering what type of tactical themes we should be looking for in our games.

Some of my favorite books that I recommend to students are *1001 Chess Exercises for Beginners* (Franco Masetti and Roberto Messa, New in Chess, 2012), *1001 Chess Exercises for Club Players* (Frank Erwich, New in Chess, 2019), *Manual of Chess Combinations Volumes 1a and 1b* (Sergey Ivaschenko, Russian Chess House, 2011, 2014) and *A Modern Guide to Checkmating Patterns: Improve Your Ability to Spot Typical Mates* (Vladimir Barsky, New in Chess, 2020). The book reviews and author’s notes should give you an indication whether it is appropriate for your level. If the book you have picked up seems too easy, apply a different training method: set a timer and solve as many as possible during that time.

Whether you're working online or with books, we still need to discuss how to actually solve tactics. Here are some tips:

- **Approach the positions methodically:** Carefully assess the entire board. Do an overall summary of what is going on in the position, who is ahead in material, and where in general are the pieces aiming. Mentally list as many things as you notice. This is a great tool to use during games when you get stuck in a position. Use your summary as a guide to help you generate candidate moves.
- **King safety:** are there immediate attacks on the king? Be specific; instead of saying things like "White is attacking," use more specific language like "the bishop on d3 is aiming at the h7-pawn."
- **Keep track of piece interactions:** which pieces are being attacked, and which ones are defending others?
- **Look out for loose pieces:** is there a piece that is not defended, or not defended sufficiently, that can become a target?
- **Ask yourself if your opponent has a threat:** This helps indicate the sense of urgency in the position. If your opponent is checkmating you, then you will need to look for forcing moves. If not, then maybe you have time for a quieter move.

Once you understand the position, look for **forcing moves** — the moves that make your opponent do something. Examples of forcing moves are checks, captures and threats, such as mating threats or attacks on the queen. If the moves don't come naturally for you, list them manually, one by one.

Let's look at a position and try to apply these tips:



WHITE TO MOVE

When we give up a piece, the burden is

on us to prove that our sacrifice was not in vain. Here, White is down a knight, but is also clearly on the attack. The queen on h6 is limiting the king's movement, and if the g5-bishop could go to f6, there would be an unstoppable mate with Qh6-g7. One takeaway is that the black queen on f5 is stopping the required bishop move.

There might also be some back-rank issues in the Black camp, as we see the e1-rook on the open file along with disconnected black rooks due to the c8-bishop.

Black's only defensive pieces are the f8-rook and the queen. Since the bishop cannot go to f6, and we can't distract the queen from defending the f6-square, we should consider another configuration using the back-rank weakness.

That's just what then-IM Judit Polgar did in the position at the bottom of the previous column. Playing against WIM Pavlina Chilingirova at the 1988 Women's Olympiad, Polgar uncorked **17. Qxf8+**, and **Black resigned**. With her move, Polgar eliminated the defender of the back-rank. The key variation is 17. ... Kxf8 18. Bh6+ Kg8 19. Re8 mate.

Finding these sacrifices and ideas becomes more natural with practice. Part of that practice should be keeping track of the kind of puzzles you fail to solve, and trying to find patterns in your misses. That gives you a sense of what themes you might need to work on.

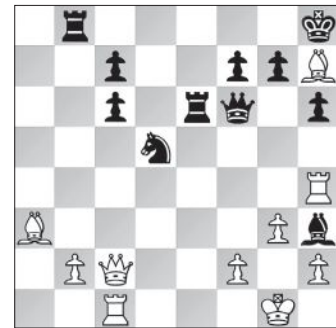
Also remember that when solving, it is very unlikely that your mistake will happen on the 10th move in the variation. Most of our mistakes happen early in our calculation, as we overlook or miscalculate an important detail. Spend time looking at all the possibilities early on.

With practice and hard work, we can apply this knowledge to our games. Of course it's a bit different over-the-board: while solving puzzles, we *know* that there is a solution and we can keep trying until we find it, but we are on our own during games, with no one nudging us to look for that beautiful queen sacrifice. So we need to be more diligent in our calculations, and we must put serious effort into finding our opponent's resources.

Here's an example of how everything can come together. I returned to St. Louis this past December to play in the 2022 SPICE Cup. In the following game, I set a trap for my opponent because I thought he would be tempted to play into this position. Since I was very familiar with the type of tactic Polgar played in her game, it worked out beautifully for me.

DÉJÀ VU

Nicholas Ladan (2264)
WGM Tatev Abrahamyan (2408)
SPICE Cup (3), 12.19.2022



BLACK TO MOVE

My bishop on h3 is trapped, so I need to take immediate action. Fortunately I noticed some of the key themes in the position and played ...

25. ... Rbe8

Threatening back-rank mate.

26. Be4

Here 26. Rxh3 runs into 26. ... Re1+ 27. Rxe1 Rxe1+ 28. Kg2 Ne3+!! distracting the f2-pawn and opening the f-file for my queen. If 29. fxe3 Qf1 mate.

26. ... Qf3!! 27. Rxh3

The queen is untouchable, as White is mated after 27. Bxf3 Re1+ 28. Rxe1 Rxe1 mate.

27. ... Rxe4

I'm still threatening back-rank mate.

28. Qd1



28. ... Nf4!!, White resigned.

Following the same theme, but this time it's the knight that covers the g2-square. My opponent resigned as material loss was inevitable: 28. ... Nf4!! 29. gxf4 (29. Qxf3 Re1+ 30. Rxe1 Rxe1 mate) 29. ... Qxh3 and Black is clearly winning. ♠