Go Teaching Zero
* Teaching with stones *
* Teaching with words *

Content of this Guide

Whatever our level, experience and interest for teaching, we all learn a bit from others and we all teach a bit from time to time, for example when we comment a few moves played in a game...

Here, the general goal of this guide is to spread **best practices of Go pedagogy** to every player, and in particular to confirmed players who are interested in Go pedagogy, whatever it is for occasional teaching or as (amateur) teachers.

Because it deals about teaching in general, this guide title contains « **Zero** » (referring to the Artificial Intelligence "AlphaGoZero" which has become very strong by "quantitative self-practice") and is a follow up of the guide about Go initiation.
Of course many principles of Go teaching apply both for the first steps as well as for advanced play.

The first part deals with "silent pedagogy" - which is about playing to teach (not to win). This technique of teaching is nowadays rather unknown and documentation is spare, but is however a very natural and powerful way to transmit knowledge in an entertaining way.
The second part deals with teaching techniques and presentation in a more formal way.

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I. Teaching game purpose

Go is a competitive game in which there can be only one winner. Therefore when a game is played between players of sensibly different levels most of the time what happens is that one player just crushes the other one on the board and comments afterwards all the mistakes - which is nasty and disparaging.

But if the rules of Go define the goal of the game as to "win", the enjoyment and purpose of playing is essentially about **improving together**.

So, when a game is played between players of very different levels, because the outcome would be too obvious and the stronger player would likely not have much to learn anyway, "pedagogic play" should be the way to go.

In a teaching game, the weaker player can of course still play very seriously, but for the strong player, or "teacher" the main purpose is not to win anymore but to provide an enjoyable game and help improve.

II. Keep game balance

For the sake of suspense and getting an interesting game (not a disgusting game) it is obvious that keeping a good game **balance** is key.

To this purpose, a prerequisite is of course to thoroughly estimate the level of the players. Then, thanks to the long history of Go teaching, there are plenty of technical tools available.

a. By the regulations

i. Size of the board

First, pay attention to choose the size of the board for the game according to the player level:

6x6 and **7x7** are bathtubs for bubblers paddling - suited for beginners and young children
9x9 is a pool for those who learn to swim - for beginners with basic tsumego knowledge
13x13 is a lake - for experienced swimmers (club level)
19x19 is an ocean - for confirmed players only

As beginners feel more comfortable, the idea is to progressively play on bigger sizes. Still it is of course not forbidden to play on other sizes than the "recommended" ones, just to try or because of personal taste...

Small sizes are suitable for the practice of basics: such as liberties, capture, connections and basic life and death problems – which is exactly what beginners need and enjoy.

It also allows players to play many fast games just to see for themselves "what is going on" and this is very important. In the amount of time needed for only one 9x9 game, you may play 2-3 games on a 6x6 or 7x7 board instead.

Also the smaller the size is, the less handicap stones you need to put on the board to balance the odds (1 stone handicap on a 6x6 board is worth more than 10 stones on a 19x19…).

ii. Handicap stones / handicap points

Of course **handicap** stones are a great way to provide more equal win chances for the weaker player.

In practice to get a balanced middlegame rather than only a balanced endgame it should be a good idea to put a bit less than the exact number of handicap stones needed to get exactly equal "winning chances" (while still providing a fair chance of win for the weaker player).

If handicap stones is the recommended technique, it's also possible to provide a few extra points for Black (a negative Komi).

iii. Take backs

Traditionally, taking a move back is considered a bad habit. But beginners tend to make mistakes that can completely destroy the game balance.

As a teacher you are supposed to be nice, aren't you ? Therefore it doesn't hurt to allow a few **take backs** or even suggest them ("are you sure you don't want to defend this…?").

iv. Pyjama Go / Rengo

There are many other regulatory ways to balance a game, such as switching sides (pyjama Go) or playing as teams (Rengo)... But use such artificial Go variants with caution, as they may confuse beginners, especially those who struggle with the basics.

b. By play - suboptimal moves

The usual practice of Go is about "playing the best move we can think of".

But obviously, playing at full strength against some much weaker player would lead to a massacre. To compensate, the main technical option is to put a large amount of handicap stones on the board, but this would then be like playing some kind of "zombie survival invasion game" which may not be very enjoyable either.

Therefore the core and most fundamental idea of pedagogic play is to choose moves that suit the motives of the teaching - in other words "pedagogic play" means playing **sub-optimal moves**.
In practice it's quite simple, you may still think about the best moves to play if you feel like, but refrain from playing these - especially if they are too harsh. Just think about what kind of moves a player of around the same strength - maybe a bit stronger - than your opponent would play. And then, play such a move.

Of course, playing most of the time at full strength, interspersed with take back offers or intentional bad moves and bragging about the fact that you are so strong and nice that you have to do this to keep the balance of the game would be very inappropriate...
It means that your play should then look natural, "the cherry on the top" is to play kind moves that seem effortless and logical enough to stay **unnoticeable** for your opponent.

So in practice, forget about the sharp sequence that enters into your opponent's moyo and simply close your frontier or make the over-concentrated shape that lower level players would play... Another clever way to play suboptimally can be achieved also by starting some complications in which it may be easier to discreetly play some tedious moves.

Teaching games are not about being harsh, but still the idea is not to answer bad moves with bad moves (punishing big mistakes makes sense !)...
Regarding the outcome, if your opponent has played "well" (for his/her level), you would also do well by providing a fair chance to win. Beginners who stop playing Go are often those who lose often !… On the opposite, don't provide "free wins" every game, it wouldn't be fun anymore.
So to ensure an agreeable gameplay is not so easy, it requires technique, experience and constant care.

III. Teaching moves

Aside from technically keeping the game balance, pedagogic play is also for **teaching** purposes.
A prerequisite is that you must be somehow familiar with the "tree of knowledge" for at least the basic concepts of Go. In other words, it's no point to expect your opponent to play ladder breakers, advanced shapes and probes when they already have difficulties with basic capture sequences... The more accurately you are estimating your opponent level and knowledge the better you would be able to adjust your moves.
The idea then is by playing **oriented moves** to set positions for practicing chosen aspects of the game theory. For example: if a player tends to "overprotect": you may play exactly the

stone at the "scary place" to allow experimenting on how to answer it. The same technique can be used to practice many other Go concepts (joseki, tsumego…).

a. Simplify

When we begin playing Go, we need to have some landmarks on which we can rely upon. Therefore an important idea of pedagogic play is to choose **simple** and sound moves that can be understood by your opponent.

The game may be simplified in various ways, for example by insisting on a sequence to show clearly the outcome (dead stones, connection/cut, corner invaded…) or by avoiding unnecessary complications such as Tenukis, probes, complex Semeais, Seki and Ko fights - when your opponent has just learned the rules…

Of course, the goal is not to play dull games, so conversely don't hesitate to orient sometimes the game to situations that are a bit complicated if it makes the game more interesting.

b. Show good example

Playing with someone of the same strength is usually fun. But as we learn a lot by imitation it's instructive also to experience what stronger players do.

So, a bit contradictory to the idea of "playing suboptimal moves" it's also good to **show the example** by an enlightened and rational play. For sure, simple blows clarify a situation better than a long speech...

For example, for a player who has difficulties making something useful with corner stones, just demonstrate by your play that by simply adding a couple of protective moves the corners can be converted into sure territories.

So playing pedagogically is somehow a mix of different approaches, something between balancing chances and occasional exemplary moves.

IV. Conclusion - let the stones speak

You may find countless Go lessons, for example in videos on the Internet… - where many strategies are explained in great detail - sometimes using imaginative ways. But despite their good will and enthusiasm, teachers who "explain" are very likely to leave an awful impression.

Why ? To illustrate this idea, let's take for example that you want to teach that "in Go we must make 2 eyes". If you just talk about the idea and show a few positions providing the right answers, the most likely outcome is you would get not understood at all (especially if you bypass important prerequisites such as "a group with 1 eye can be killed"). It's already not a great result, but let's suppose that you get understood : this would not be any better because it would spoil the possibility for your students to have fun discovering themselves such strange wonder of Go by practice !

Practice provides to players the much desired opportunities to play mistakes and great moves, learn and have fun from them, and improve - which is gratifying.

So, pedagogic play is fundamentally and above all about understanding and using the **power of practice** thoroughly. This guarantees to avoid the omnipresent and embarrassing problem of "overteaching".

It doesn't prevent from promoting reviews of games or exercises. But whatever you are teaching, the principle is always the same: it's not the teacher who should be playing, but the students.

So instead of providing answers that practice would give better, what should be done is simply to set this favorable environment ("laissez faire") where players can enjoy the calligraphy drawn by stones on the board and ask themselves "this is interesting: what to play now ?".

So **don't explain,** but **give the players a chance to have fun** by trying, playing moves they like and discover the intricacies of the game by themselves.

Whenever it is to transmit the rules or to explore ideas, **stones are the best Go teachers**.

B. Teaching with words

I. Presentation

Trying to transmit to a brain that is not prepared to listen is as vain as trying to promote Go for a hooligan crowd...

Therefore, **presentation** will matter first: making the introductions, ensuring there is a good atmosphere…

Psychology matters ! If you tell beginners that their level of play is not good and that for this reason they deserve "handicap stones" - this leads to trouble... On the other hand, "offering stones" as a "welcome gift" is much more pleasant. :)

Choose the vocabulary carefully: use simple words with children and elaborate Asian proverbs for adults.

Also, debates can be embarrassing. Refrain to intervene in another player's teaching, because even if it is badly done having two teachers at the same time is very confusing… In such a situation, if you have any disagreement about the methodology the advice is to discuss it afterwards in private.

II. Know your public

Listening and adapting to your audience is essential.

Before starting any kind of teaching, to be able to adapt the cursus and the style, properly assessing the public expectations and the level of knowledge is needed.

In practice, it might be a good idea to start with (simultaneous) games to assess the players strengths. Separate players by groups of strength also should be a good idea when the levels vary a lot…

III. Make it short

For too many teachers, the exercise is about imparting as much information as possible, the success being determined by the stopwatch… The outcome of such an approach is always catastrophic.

In most situations, players and especially beginners need to practice more than listening to elaborate speeches. Also to take into account: not every players enjoy long lessons/reviews...

And time is precious, therefore it would not be wise to analyze in-depth every move of a blitz game played in 5 mn…

So in practice, teaching is about **focusing on a few key ideas** where interesting sequences can be played. Whatever the level of play, there are always subtleties to discover and have fun with: connecting on the first line, snapback, geta, monkey jump… Keep it simple with what you have - and avoid spending 15 minutes to show all the ladder breaker variations if there is no need for that… And with a bit of preparation it would only be better.

IV. Aim for quality

When transmitting, it is obviously essential to pay attention to the **content** to cover: choose the ideas and topics wisely and transmit in the right order.

So rather than quantity, it's wiser to focus on quality and respect everyone pace : if an important notion has not been covered in the allotted time, it can be seen another time…

All you have to do is to **adjust** constantly your program to allow players if they need time so they can acquire a solid play foundation.

V. Interactivity

Everyone has had the painful experience of having to listen passively for long hours at school, right? One-sided teaching makes all learning particularly tasteless.

Commenting is of course about transmitting ideas, but explanations are rather boring and there is no guarantee you will get understood. Go pedagogy is neither about imposing one's view nor about providing the solution to every question, it is about helping to find better moves.

Don't skimp on **interactivity**, it's essential for understanding and fun !

So rather than explaining some solution, simply ask: "**what to play now** ?"

By **listening to what players say** it would allow you to understand what they think and discuss about the options suggested - which should be very interesting.

The answers must come from the players. And if the expected solution has not been found, you can help by checking the proposed moves – every idea is worth attention. Then by providing increasingly more helpful hints, players should be able to find better moves.

VI. Visualisation and vulgarization

Discussions over complex sequences can be very confusing.

To get to the point, rather than talking about a virtual possibility, just **show** the idea on the board - the calligraphy of a few stones is worth 1000 words !

And to help grasping the idea, **vulgarize** it with a proverb ("there is death in the hane"...), a concept ("this is influence") or a comparison ("is it better to take the cash now or to invest for the future ?"). To make it great, this communication around the game needs a bit of preparation and talent.

VII. Doubt and argumentation

Be careful about sureness !

Go is a complicated game in which moves might look dubious or even wrong for many reasons (bad shape, stones can be captured…) when in fact they are good, and vice-versa... By nature, players tend to overestimate their "vision" and assimilate it as being the "best way to play". But the more you learn the more you grasp that there is more poetry than certainty in Go.

See the diagram below for example. Black has played the stones "1" and "3". White cuts and kills all the black stones in the corner - no doubt about that. So are those black moves "1" and "3" beginners mistakes ?
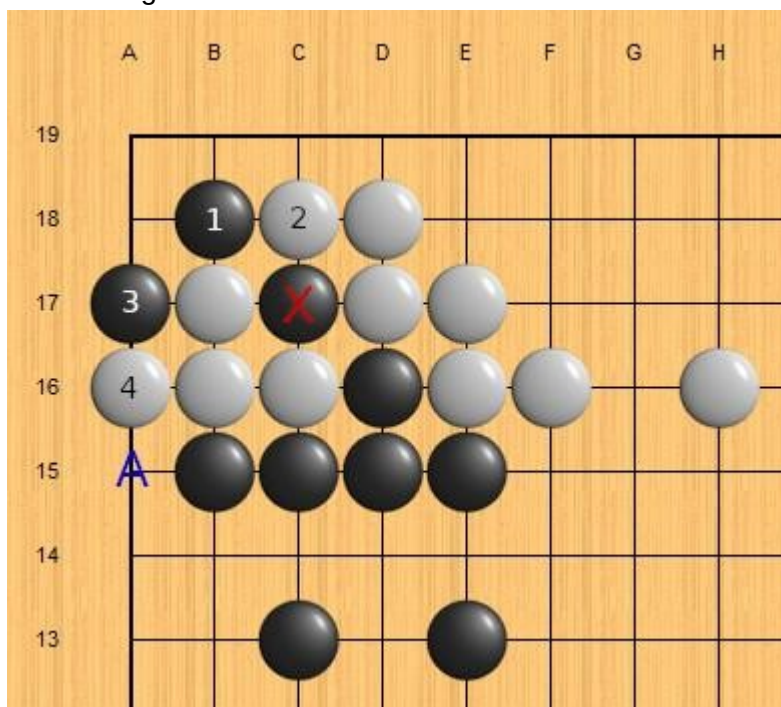
This smells « bad play », but is in fact a known endgame tesuji (source: Sensei library) where Black wants to close the frontier at A with <u>Sente.</u> The previous stones sacrificed are just played to force White to answer.

So how to not get it wrong ? **Doubt is wisdom**. Especially when a position is complex or involves calculations - be extra careful. You can say that a "group of stones is dead" when you are 100 % sure. But in case of even a slight doubt, say instead "unless I'm mistaken this is dead" or "it looks too dangerous" or "I think it's troublesome for White"...

Globally, rather than statements, a bit of **argumentation** is helpful : "A makes the shape heavy, B is light but is it worth sacrificing the marked stones ?". Even if your vision might still be inaccurate, your arguments will show how to conceptualize the language of Go and develop critical minds.

VIII. Criticize the moves, praise the players

Teaching, and especially review of games is mostly about checking the biggest mistakes. But the idea is not to scold the players - remember that bad moves often come from good ideas that either don't fit to the situation or would just need a bit more technique -, what we want is to enjoy the play and still **find better moves**.
So what we do is to comment on the ideas: "why play this ?", "are you happy with the outcome ?", "how to increase the influence here ?"... and argue and discuss with the players.

A useful technical tip to diminish the negative impact an analysis may have on players' ego when checking their ideas, is to use "Black" and "White" rather than their names.

IX. Illuminate the calligraphy of stones

According to your likings, you may prepare some **speech** about the context of a game, use poetic proverbs, comparisons ("this is like a grocery store in front of a supermarket"), original and funny expressions ("this group is a dead parrot", "there is a horde of zombies there", "this is ultranuki"...), exaggerate the message and use superlatives ("Black just got the biggest bestest wall ever while White lives with 2 points"), etc.
There are many interesting topics to cover: historical games, games around a theme such as "moyo" or "what pros play nowadays and we don't", and so on. Good ideas and care for the presentation and style could make a teaching very enjoyable. :)

C.   Conclusion

I. As many teachings as teachers and teached

If formerly Go was rather an activity practiced by wealthy classes (aristocrats, warriors or monks ...) with a transmission of knowledge from "master to student", nowadays Go has become strongly democratized, professionalized, specialized and computerized.
What can be confusing is maybe that there is only « teaching key principles » but there is not and never was in Go, such thing as a "one-size-fits-all" method.

II. Teaching devices

Aside from classic practice of the game, what is studied are mainly "life and death" exercises, shapes, tesujis, openings, finals… and game reviews.
And in our modern world, we are witnessing an abundance of teaching techniques with various media - books, websites, magazines, etc. addressing different audiences.
Teaching techniques, especially devices and programs are constantly evolving and adapting. Here in a few pages it is impossible to cover all these techniques, but we have **many tools** at our disposal and when they are appropriate all we need to do is to **use them** or else **make them**.

III.   Culture of improvement

What the experience of the game of Go also shows is that there is no such thing as "spontaneous genius". To achieve a top level, the way to go is to spend 10 hours per day near a game board.
Pedagogy is a fascinating and very broad subject and it can help to improve, of course. But whenever we teach for entertainment or with competitive results as objective, if there is really a central idea to remember it's to replace "explain" with "**help to discover**".

In conclusion, we hope this guide might (maybe) arouse teaching vocations or at least help a bit to improve your pedagogic technique in general.

Some people may still think that spending time to prepare folders with tsumego exercises or play "suboptimal moves" against 20 kyu players might not be as enjoyable as playing high-level competitive games.
But maybe this is comparing different things, because the enjoyment is not of the same nature. An interesting part in Go teaching is about adopting another way of thinking than ours, to be able to understand what players are thinking by simply looking at Go sequences. Being confronted with naive questions from beginners also helps to consolidate your own basics.
Overall, Go teaching is not an innate aptitude, it requires serious preparation and talent.
In the end, the main reward is to know that thanks to our teaching we have set in place the conditions for other players to also get amazed by the same subtleties of Go.

Cultural illustration: in Japan when a young professional beats in a tournament the one who was his teacher in his youth, he declares that he is happy to pay homage to his teacher in this way.

Tradition of **welcoming** and **mutual-improvement** is a vivid part of the Go culture, and beyond the subtle nature of the strategies it is somehow what makes it a very civilized game.

moves 2-21	moves 22-40 → move 23 at A4

2	This teaching game is played on a small board (7x7). Some might criticize that such a size is too small to enjoy. But it's arguably complicated enough to be extremely difficult to play perfectly. And moreover if it looks quite simple compared to 19x19, for a beginner such as the anonymous Black player here who has a very light understanding of tsumego principles it is a difficult and enjoyable game. Of course, the pedagogic principles commented in this example also apply for higher levels and bigger boards.
6	To keep the game somehow balanced, the first objective for White is to <u>survive</u>. It happens sometimes in pedagogic games that the supposed "beginner" is stronger than expected - so to play quite strong moves at the beginning should ensure that 2 types of stones remain on the board in the end.
10	Simple and solid move. Pedagogy is also about playing simple and sound just to give a decent example of play.
12	Black has played the first moves quite well. So White needs to complicate a bit here to make the game interesting. Even obviously abusive invasions can be difficult to handle for beginners.

14	To avoid G3 which would be deadly.
17	Black doesn't care at all about the upper left corner. It needs some experience and technique to be able to see more clearly what are the priorities in Go.
19	This move can be interpreted as a "mistake" (trying to save dead stones) or a good intuition (removing eye shape)...
20	Searching for life...
24	Dangerous threat.
25	A sound connection. A3 is also possible but more complicated.
27	This is very inadequate. Beginners may play such moves for reasons such as "to connect to the border" or "the shape looks good".
28	White could have played F1 instead to get life, but wants to give a chance to kill.
29	By defending Black has technically killed White in this corner. Well played.
30	Solidifies the corner.
38	This « reinforces » a dead group. It is not a « good move » but the purpose here is to simplify the position.
40	We get a self-explaining position in which continuing would lead to suicide or filling liberties… Still Black is welcome if he/she wants to try continuing. :) So to help beginners to grasp the concept of "life" don't hesitate to continue playing (whatever we play with Chinese or Japanese rules…) until there are only suicides left.
And after both players passed, the bottom right corner was a nice practical tsumego for Black who actually did not believe it was possible to capture. An unexpected win. :))	
To review such games, there are a few options. For example it's possible to ask if the black stone in the upper left corner could have been saved or if there is a better move than F7… But in general it's advised not to review more than a few key moments.	